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Non-standard forms of employment in some Asian countries: A study of wages and working conditions of temporary workers

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countries: A study of wages and working conditions of
temporary workers***

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Abstract

This study aims at examining the effects of temporary jobs on employment conditions in selected Asian countries, including Vietnam, Cambodia, Indonesia, the Philippines and Pakistan, based on their national Labour Force Survey data. In general, temporary work accounted for an important proportion of wage employment in these Asian countries, with great variation across nations.

Wage differentials between temporary and permanent workers depend highly on the arrangement form (fixed-term or casual, full-time or part-time, written or oral contract), and on the relative position in the wage distribution. In some cases hourly wage penalties of temporary jobs turn into a premium when it concerns temporary part-timers, and particularly fixed term contract workers in Cambodia. The temporary wage premium in Cambodia is partially explained by the fact that a number of ‘better’ jobs take the form of written temporary contracts with relatively high wage rate whereas many other more precarious low-paid jobs are characterized by permanent nature (e.g. unlimited oral contract). Thus, controlling for type of contract/agreement, in addition to duration, changes, to some extent, the wage gap pattern, inducing clearance of temporary wage premium, but some inconclusive results remain. However, in most cases, temporary wage gaps are negative and do substantially vary along wage distribution. Both “sticky floors” and “glass ceiling” are revealed. The temporary wage gap is wider at the bottom of the wage distribution in Vietnam, suggesting that the penalty of being in temporary jobs could be more severe for disadvantaged workers, whereas “glass ceiling” effect in Pakistan prevents temporary workers from approaching high wages, particularly at the top of the wage distribution.

Besides suffering from pay gaps, temporary wage workers are also penalised in other terms such as social security coverage and corporate benefits. Although there is no clear evidence of temporary employment penalty regarding employer provided training, temporary workers do suffer from a general lack of other formal training opportunities relative to permanent full-timers. Finally, the temporary employment penalty related to occupational health risk is another important issue that should be addressed in labour market and employment policies in these Asian countries.

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1. Introduction

The clamour to change the approach to regulating labour markets has been rising from a wide range of sources and not always from the usual suspects, the mainstream economists that regard regulations as distorting the pure operation of markets. For others the problem is the narrowing of the segment of the population covered by traditional employment regulation and social protection (Stone and Arthurs, 2013; Vosko, 2010) associated with the standard employment relationship (SER) and the consequent growth in dualism (Palier and Thelen, 2011), conceptualised as an increase in ‘working on the margins’ (Vosko, 2010) or the rise of the precariat, an emerging class in itself (Standing 2011). For these writers, as well as mainstream economists, regulation is said to be working for the insiders but not the outsiders, although their perspectives differ on whether regulation is simply ineffective or itself the cause of inequality. A common policy solution is said to be to move towards more comprehensive entitlements to social protection, not dependent on employment status (Vosko, 2010; Standing, 2011). This follows developments in developing economies where new social protection initiatives have increasingly been delinked from employment status and extended to the informal sector often on a non-contributory basis (ILO, 2014; Barrientos, 2013; Martínez Franzoni and Sánchez-Ancochea, 2014).

The past several decades have witnessed the rise of non-standard forms of employment (NSFE) in many parts of both the industrialized and the developing worlds. The reasons for this shift are multi-faceted, including increased competition as a result of globalization, technological change that has facilitated business and work re-organization, the increased participation of women in the labour market, and the rise in new types of contractual arrangements, sometimes as a result of legal changes, but also in response to changes in the business model (ILO, 2015). Given their growth across the globe, it is important to ascertain the impact of the rise in non-standard forms of employment on workers’ protection, enterprises’ development and the overall labour market and economic performance.

In Asia, the evolution of temporary and triangular employment relationships has differed across countries, as a result of different legislative frameworks and specific economic contexts, with different impacts on the labour market and working conditions. A systematic empirical study analysing the impact of non-standard forms of employment on working conditions is therefore useful for better understanding challenges associated with such employment as well as developing policy proposals. This study aims at examining the effects of temporary employment (fixed-term contracts, casual, and other forms) on working conditions in selected Asian countries, including Vietnam, Cambodia, Indonesia, the Philippines and Pakistan, based on their national Labour Force Survey data.

The obtained descriptive results show that temporary work accounted for an important proportion of wage employment in these Asian countries, with great variation across nations. The investigation of the temporary status consequences on working conditions has been carried out in both descriptive and econometric analyses of different types of financial and non-financial penalty/reward. As regard financial terms, wage between temporary and permanent workers differentials depend highly on the arrangement form (fixed term, casual, full-time or part-time, written or oral contract), and on the relative position in the wage distribution. In some cases hourly wage penalties of temporary jobs turn into a premium when it concerns temporary part-timers, and particularly fixed term contract workers in Cambodia. Focusing on the variation of wage gaps along distribution, both “sticky floors” and “glass ceiling” are revealed. The temporary wage gap is wider at the bottom of the wage distribution in Vietnam, suggesting that the penalty of being in temporary jobs could be more severe for disadvantaged workers (“sticky floors”), whereas “glass ceiling” effect in Pakistan prevents temporary workers from approaching high wages, particularly at the upper quintiles of the

wage distribution. Not only suffering from pay gaps, temporary wage workers are also penalised in other terms such as social security coverage and other corporate benefits. Although there is no clear evidence of temporary employment penalty regarding employer provided training, temporary workers do suffer from a general lack of other formal training opportunities relative to permanent full-timers. Finally, the temporary employment penalty related to occupational health risk is another important issue that should be addressed in labour market and employment policies in these Asian countries.

The report is structured as follows. Section 1 discusses different understandings and adapted definitions of NSFE in the Asian context, and provides descriptive figures describing the incidence and trends of temporary employment in the selected Asian countries. Section 2 provides an overview of empirical research literature on the effects of NSFE on workers with a primary Asian evidence focus. Our main directing lines in this review concern workers' rewards/penalties for engaging in NSFE. Empirical results derived from both descriptive and econometric analyses are presented in sections 3, 4 and 5. Section 3 offers descriptive profiles of temporary wage workers, and an analysis of the determinants of temporary employment. Section 4 describes employment conditions of different forms of temporary work compared with full-time and permanent jobs. The first hand important findings are further investigated in the econometric analyses presented in Section 5. Econometric models in Section 5 refine estimated wage gaps and other measures of penalties associated with temporary employment status, followed by concluding remarks.

2. Contextualizing NSFE in Asia

2.1. Adapted definition of NSFE to the Asia context

To facilitate research on NSFE, an accurate and comparable definition of this concept should be established. Although there has been no such an official definition, ILO (2015) considers NSFE as all jobs that fall out of the realm of the standard employment relationship, understood as full-time, indefinite, as well as part of a subordinate employment relationship. Differently speaking, a job that dissatisfies at least one of the three dimensions would be called “non-standard”. Accordingly, NSFE includes (1) temporary employment; (2) temporary agency work and other contractual arrangements involving multiple parties, as well as ambiguous employment relationships; and (3) part-time employment (ILO, 2015). Temporary employment refers to jobs with limited duration, namely fixed-term, project or task-based contracts, seasonal and casual work, including day-labourers. Part-time employment is employment in which the normal number of working hours is less than that of a full-time counterpart (ibid).¹

While cross-country statistics for NSFE is available for OECD countries (OECD, 2014), there is a scarcity of cross-nation statistical evidence on non-standard work in Asia. Provided a various range of country definitions and of measurement methods, NSFE terms in different studies on different (Asian) countries are unlikely comparable (Tucker, 2002). In fact, while fixed-term contracts are dominant in Europe and Latin America, many places of Africa and Asia witness the prevalence of casual jobs instead of contractual arrangements with formal guarantees. Consequently, some countries collect data on the incidence of casual jobs, but not on fixed-term employment and vice versa (ILO, 2015). Serrano et al. (2014) lists a variety of terms ascribed to non-standard employment in the formal sector in ASEAN

¹ In the current research, as in other ILO studies, the “35 working hours” threshold is applied in statistically defining part-time workers.

countries (Table A1 in Appendix). They stated that some of them “overlap and even bear contradictory meanings, making it difficult to use a single term in comparing the forms and trends of non-standard employment among the study countries.”²

In emerging economies and developing countries, the concept of non-standard work considerably overlaps with the concept of informal employment. According to the ILO definition (ILO, 2003; Hussmanns, 2004), employees are considered to have informal jobs if their employment relationship is, in law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits (advance notice of dismissal, severance pay, paid annual or sick leave, etc.). Given this definition, informal jobs may be both standard and non-standard. NSFE might fall under the realm of informality in those cases when, for example, their non-standard aspect renders them informal: for example, workers may be excluded from social protection or employment benefits because of the limited duration of their temporary work, or insufficient hours of their part-time work. Given the extent of informality in many Asian countries (ILO, 2008; Serrano *et al.*, 2014; Rani, 2008), it is not unreasonable to view many non-standard jobs as informal, though bearing in mind this difference between the two concepts.

Turning to the reasons for NSFE, firms and workers seek NSFE for different purposes. On the supply side, there are three main reasons explaining the use of NSFE: cost advantages, flexibility, and technological changes.

First, NSFE are often associated with lower wage and non-wage costs for enterprises (von Hippel *et al.*, 1997; Nesheim *et al.*, 2007). It is believed that NSFE are the result of too much protection for standard jobs, including rigid labour regulations (Lee & Eyraud, 2008). For example, the amount of taxes and mandatory contributions on labour paid by the business in Vietnam constitute up to 19.2 per cent of their commercial profits. In China, the figure reaches 68 per cent (The World Bank Group's Report on Doing Business, 2010). Thus, using non-standard forms of employment could be a way that employers evade the mandatory contribution burden. Employing workers managed by third parties can also save firms the expenses in screening, administering and supervising workers (Kalleberg *et al.*, 2003).

Second, non-standard employment offers firms greater flexibility, numerically or functionally. Debrah and Smith (2002) assert that the expansion of NSFE is driven largely by demands for flexibility of employers in the context of deregulated labour markets and intense market competition. Temporary work has always existed to cope with seasonal demand (Harrison & Kelley, 1993) and labour supply fluctuations (Ko, 2003). Since the rise of Toyotism with just-in-time production in the latter part of the twentieth century (Edgell, 2012), organizations are able to hire workers for short time periods, allowing them to control the size of their workforce rather rapidly. Moreover, NSFE can help organizations handle specific, typically short-term tasks, which require special skills unavailable in-house (Kalleberg *et al.*, 2003).

Third, technological changes have facilitated non-standard forms of work. The development of online services has enabled employees to contact with each other and with the employer, regardless of space and time distances. Consequently, administrative and physical attachment to the organization is limited.

² For example, in Indonesia, contract workers are those workers that have employment contracts with the principal company or the user company, while outsourced workers are those workers that have employment contracts with the outsourcing company. In the Philippines and Singapore, contract workers can also be outsourced workers or workers dispatched by manpower supplying agencies or contractors.

On the demand side, NSFE is either a voluntary or involuntary choice of workers. On the one hand, workers voluntarily seek NSFE to accommodate family, school or other obligations, to acquire extra income, skills, experience and network. Part-time jobs, for instance, are often taken by women who are bounded with family responsibilities. A further example is in Australia, where the highest level of job satisfaction is recorded for fixed-term workers (Lee & Eyraud, 2008). On the other hand, NSFE could be an involuntary, situational solution of workers when they are unable to obtain standard jobs immediately. For instance, about a half of non-regular workers in Korea declared that being this kind of workers is an involuntary choice because they need money instantly or they cannot find any satisfactory jobs other than this (Lee & Lee, 2007). A number of studies in Asia have found high transition densities of workers from NSFE into regular paid jobs (Esteban-Pretel *et al.*, 2002; Ghost, 2004; Kim & Lee 2014).

2.2. Incidence and trends in NSFE

NSFE is ubiquitous in Asia, mainly under the form of informal employment. In the 2008 *World of Work Report*, ILO addresses an increase in the incidence of informal employment in the majority of the countries with available data. In another study on ASEAN countries, Serrano *et al.* (2014) states that the incidence of non-standard work, including temporary agency work (or outsourced work, or dispatched work), is high and on the uptrend in various countries (Indonesia, Malaysia, the Philippines, Thailand and Vietnam). The Asia-wide highest rate of informal employment is recorded in India at 93 per cent (AMRC, 2008).

NSFE is characterised by a dominance of women and relatively younger workers (Serrano *et al.*, 2014). Manufacturing sector is likely to have the highest incidence of outsourced and dispatched workers in ASEAN countries (*ibid*), and of temporary employment in South Asia (according to World Bank Enterprise Survey, ILO 2015). Temporary agency work, in particular, and non-standard jobs in general, are actually cyclical. Their supply and demand increases in years of growth and declines in economic downturns (Serrano *et al.*, 2014; ILO, 2015).

In addition to global pro-NSFE factors, Asian countries also possess their own characteristics that favour the prevalence and the rise of NSFE. In many countries like China, Vietnam, Bangladesh and the Philippines, changes in the patterns of employment have been resulted from the labour mobility from rural to urban areas, and between farm and non-farm activities. As noted in Lan & Bao-qin (2007) (cited in Ofreneo, 2013), the large floating population of migrant workers from rural areas is the main source of the increase in non-standard workers in China. Like China, Vietnamese cities have a large population of migrants coming from rural areas, which is an important source of short-term, casual, and part-time workers (Ofreneo, 2013; Gubry *et al.*, 2011). This Asian specificity can be explained by at least two reasons. First, high growth rate of rural population has put pressure on an increasingly narrowed cultivable land area. This, on the one hand, causes a significant migration flow.³ On the other hand, while diversifying or switching to non-farm sector, rural workers engage mostly in subcontracted, temporary and casual work (Ofreneo, 2013). Second, rapid urbanization along with economic deregulation and privatisation have also attracted/pushed migrants, women and young labourers to informal economy (*ibid*). The urbanization process has fostered the transition of a large number of workers from farm to

³ According to Cu C. L. (2006), remote rural areas have been less dynamic and are confronting an imbalance between human resources and land as a consequence of high population growth in past decades. As in this viewpoint, the rural-urban migration is considered as a process of combining the underemployed human resources in rural areas and production facilities in urban areas to generate a new driving force for a better economic development.

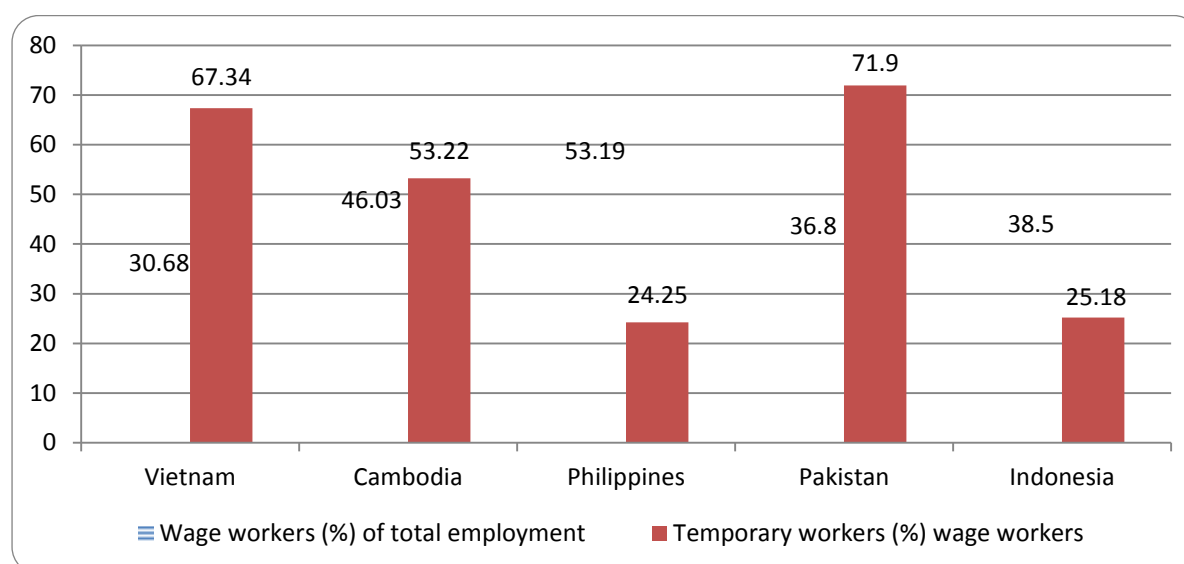
non-farm jobs. However, as a result of the limited availability of formal non-farm jobs in newly urbanized areas, this process has also been accompanied by the expansion of the informal economy.

2.3. Overview of temporary employment in selected Asian countries

While focusing on some selected Asian countries in the current study, our statistical analyses rely on national Labour Force Surveys (LFS). The computation of figures on incidence of NSFE is based on the adapted ILO definition of NSFE and the availability of related information on workers' main job in LFS questionnaires conducted in each country. As previously mentioned, the definitions and related questions in LFS questionnaires differ from one country to another. For example, whilst Vietnamese, Cambodian, and Pakistani data allow a computation of temporary employment defined as all jobs with impermanent duration; Filipino and Indonesian surveys only provide proxies of temporary employment. In the case of the Philippines, the question on the nature of employment enables only to distinguish permanency in terms of jobs rather than contracts. Indonesian questionnaire includes a one-for-all question providing both workers' employment status and job permanency. Moreover, wage employees can only be classified into two groups, namely, casual (temporary) and non-casual. Similarly, fixed-term contract workers can be singled out only in the data of Vietnam, Cambodia and Pakistan (2008-2009 survey). Notably, the paucity of data on triangular employment relationships disables any cross-country analysis on temporary-agency work. The very existence of one specific concept in a national survey and not of the other(s) might indeed reveal the relevance of that particular form of employment in that country (ILO, 2015).

In general, temporary work accounted for an important proportion of wage employment in selected Asian countries, with great variation across nations. It spanned from 24 per cent in the Philippines to 71,9 per cent in Pakistan (Figure 1), which far exceeds OECD's and Japan's temporary employment rate at around 12 per cent and 14 per cent, respectively (OECD, 2014).

Figure 1. Temporary workers, as percentage of wage employees, in selected Asian countries

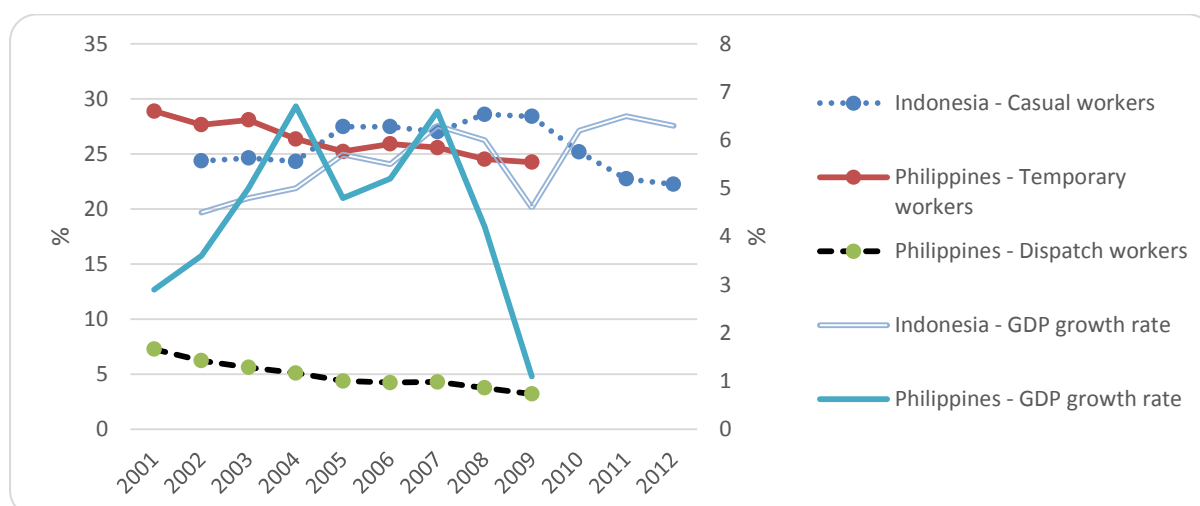


Note: For Indonesia, temporary employment only implies casual jobs.

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2009; Pakistan: LFS 2008-2009; Indonesia: LFS 2012. Authors' calculation. Vietnam LFS2007 is used instead of the latest available data in 2011 because the surveyed data in 2011 reveal an important number of missing values relating to the variables studied.

Figure 2 illustrates the incidence and trends in various types of temporary employment in Indonesia and the Philippines, where time-series data are available. In general, the temporary employment rate in the Philippines remained fairly high and followed a slightly decreasing trend over the economic ups and downs of the period between 2001 and 2009. Particularly, a proportion of temporary workers declared that they “worked for different employer on day to day or week to week basis”, which could be understood as *dispatch* workers. This group accounted for around five per cent of wage employees, and the figure inconsiderably declined over this period. Additionally, temporary workers are at times engaged on a daily, weekly or seasonal basis, known as casual jobs. Casual workers constituted up to around one quarter of wage employment in Indonesia and Pakistan.⁴ There are some fluctuations in the casual employment rate in Indonesia from 2002 to 2012, which appear to be pro-cyclical before 2006 but turn out to be counter-cyclical after then. Since there were various factors that are not controlled for, it might be too soon to put forward any conclusion on the temporary employment cycle at this moment.

Figure 2. Evolution of temporary employment in Indonesia and the Philippines



Note: The rates are calculated as percentage of wage employees in Indonesia

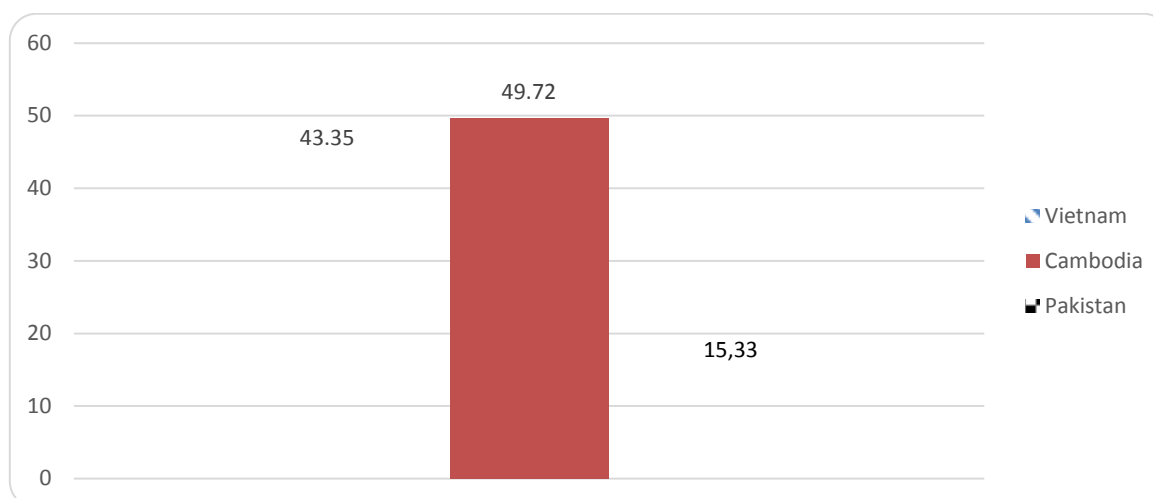
Source: Indonesian LFS, 2002 – 2012; Philippines’ LFS, 2001-2009; GDP growth rates from the World Bank: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?page=1>. Authors’ calculation.

Besides casual and dispatch employment, fixed-term contract was also prevalent in the examined countries. Data for Pakistan (2009), Cambodia (2012) and Vietnam (2007) reveal a considerable proportion of fixed-term contract workers among wage employees at 5, 16 and 25 per cent, respectively.

Although a written contract is of more assurance than oral agreement and no contract, holding a written contract may not necessarily imply employment stability. Whereas the majority of written contracts in Pakistan was permanent (85 per cent); in Vietnam and Cambodia, nearly half of written contracts were in fixed term (Figure 3).

⁴ Authors’ own computation based on Pakistani LFS 2005-2009.

Figure 3. Workers with FTC, as percentage of workers with written contracts, in selected countries



Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009. Authors' calculation.

In summary, temporary employment emerged as a noteworthy important phenomenon in a number of Asian countries, as a large proportion of wage workers derived all or part of their earnings from it. Given its prevalence across Asia, it is of great importance to evaluate the impact of temporary employment relationships on working conditions based on available data. In this attempt, after providing general reviews of existing evidence on this issue with a focus on Asian countries, the paper will present detailed descriptive statistics on the compositions and patterns of temporary employment in selected Asian countries (Section 3), as well as comparisons of working conditions between temporary and standard workers (Section 4). Section 5 will then focus on econometric analyses of temporary wage and other penalties.

3. Impact of NSFE on workers: An overview of empirical research literature with a primary focus on Asian countries

The aforementioned rising trend of non-standard jobs might raise concerns as they are associated with inferior employment conditions, thus causing negative impacts on individual working life (De Cuyper *et al.*, 2008). To shed light on this issue, this section aims at assessing the penalties for engaging in NSFE in terms of remuneration, career pathway as well as other employment conditions. It seeks to present a contextualized literature review on this question in Asia, with a focus on existing evidence for selected countries in the current study.

3.1. Workers' rewards/penalties of engaging in NSFE

3.1.1. Wage differentials

Remuneration appears to be the first and important criterion when assessing job quality. Thus, measuring wage differentials undoubtedly helps illustrate the reward or penalty of engaging in NSFE compared to standard ones. Generally, existing evidence relied on two types of statistics, one is simply 'raw' wage gap, i.e., the ratio (or its inverse) of non-standard employment wage to standard employment wage, and the other is the wage gap derived from

empirical wage equations in which worker's personal and household characteristics are taken into account. Based on both types of statistics, non-standard jobs are generally remunerated less than standard jobs (ILO, 2008 and 2015; Rani, 2012; OECD, 2014, Fuller & Vosko, 2008; Gash & McGinnity, 2007; Jahn & Pozzoli, 2013 among others).

Turning now to Asia, statistics on 'pure' NSFE-SFE wage gap exist only for the OECD members like Japan, Korea. In Asian developing countries, although most of available evidence has been referred to the informal-formal wage differentials, some analyses can still be found revealing the important magnitude of the wage penalty of some forms of non-standard jobs. Hassan and Jandoc (2009) find that in the Philippines in 2006, permanent workers earned on average 51 per cent higher than casual workers did. In Indonesia, wage ratios are reported respectively 83.3 per cent for fixed-term contract workers and 73.8 per cent for outsourced workers compared to their permanent counterparts (Akatiga Foundation *et al.*, 2010; cited in Marasigan and Serrano, 2014). Relying on wage equations constructed for workers in organized manufacturing sector in India, Bhandari and Hesmati (2008) find that permanent workers earn on average 45.5 per cent more than non-permanent workers after controlling for different individual human capital as well as job related characteristics. A more recent study of India conducted by Rani (2012) figures out that, casual workers received 44 per cent of the wages of regular wage workers in 2004-2005. The wage gap has grown much wider since 1983. In Bangladesh, the average wage ratio between casual and regular workers was reported no less important, of around 40 per cent in 2010 (ILO, 2013).

However, when confounding factors such as heterogeneity in employment characteristics and selection bias are considered by panel data analyses and/or quantile regression, the NSFE wage penalty is generally reduced (Booth *et al.*, 2002; Jahn & Pozzoli, 2013; Bosio, 2009; Fernandez-Kranz & Rodriguez-Planas, 2011; O'Dorchai *et al.*, 2007; OECD, 2014). Some recent studies for Asian country cases have also been based on panel data, however, to refine wage gap between formal and informal employment (Arabsheibani & Staneva, 2012; Sharma, 2013; Nguyen *et al.*, 2013), and therefore evidence on refined 'pure' NSFE-SFE wage gap in Asia remains unknown. Their findings suggest that the earnings gap highly depends on workers' job status and on relative position in the earnings distribution, thus informal employment penalties may in some cases turn into premiums (e.g., informal self-employment compared with formal waged employment).

In explaining the related factors to the gap, decomposition techniques based on wage equations, such as Neuman-Oaxaca procedure, are largely applied. Again, this type of analysis has been conducted more for studies in Europe, Latin America, whereas very little evidence can be found for Asia and especially for Asian developing countries. In India, wage gap decomposition conducted by Bhandari and Hesmati (2006) has shown that, controlling for various observed characteristics, experience plays the most important role in explaining the pay difference between permanent and fixed term contract workers. An explanation for its effect would be that fixed-term contract workers cannot stick to a particular job for a long enough period to be able to reap the benefit of significant wage return like that of a permanent worker.

3.1.2. Working conditions

Besides wage penalty, workers engaging in non-standard jobs also tend to suffer from less favourable working conditions such as lower degree of security and continuity, substantially unstable/irregular (shorter or longer) working hours and exposure to occupational risks of injury and health.

To begin with, regarding contractual arrangement nature, NSFE may involve rather loose connection between employer and employee. This can lead to many unexpected consequences to workers, such as faring worse than standard workers in the negotiation of

employment contracts (Whatman *et al.*, 1999, cited in Tucker, 2002), lack of employee-employer obligations, and lower identification of employees with the firm they are working, for which may have negative effects on employee motivation (Millward & Hopkins, 1998; Marsden 2004). Workers in NSFE are peripheral to the organization, and considered the most negotiable and flexible factor in production (Marasigan & Serrano, 2014), therefore, beyond the main concerns of the employers in terms of employment benefits (Martinez *et al.*, 2010). The case of contract and outsourced workers in Indonesia, Malaysia and the Philippines is a good example of the blurred employment relationship between employees and employers. Consequently, the terms and conditions of work become poorer, accompanied by lower job security in comparison with regular workers, and their time and effort are maximised by the employers who employ them within a short period of time (Marasigan & Serrano, 2014).

Second, non-standard jobs are often associated with insecurity, precarious conditions and low-paid that may lead workers, in some cases, to increase their effort (Bluestone & Rose 1997, cited in Heisz & Larochelle-Côté, 2006; Bluestone & Rose, 2000; Green, 2006, cited in Spath, 2014), either by increasing work intensity or the number of working hours (e.g., for temporary workers)⁵ or by getting involved in multiple jobs (e.g., for part-timers). In Asian countries, there is plenty of evidence indicating that workers with a rather unstable working arrangement tend to have long and extended working hours. For instance, Kusakabe (2006) reports that piece-rate workers in the manufacturing sector in Thailand have generally long working hours. Their average number of weekly working hours has increased by almost two hours from 2001 to 2003, reaching 53.2 hours. Outsourced agency workers in manufacturing and construction sectors in some ASEAN countries like Malaysia, Thailand, and the Philippines are also known as suffering from extremely long working hours.

Lastly, workers employed in NSFE would be more vulnerable to occupational injury and health risk (Benach *et al.*, 2004; Virtanen *et al.*, 2005; Zeytinoglu *et al.*, 2005; De Cuyper *et al.*, 2008; Hewison & Kelleberg, 2012; Sakurai *et al.*, 2013). Studies for Asian countries confirm this statement (Sakurai *et al.*, 2013; Im *et al.*, 2012). The reason for the high occupational risk associated with non-standard workers is that they are placed in poor working conditions. Foreign migrant workers who are employed in the construction sector in Malaysia with project-based contract (Serrano, 2014), and dispatch workers in Vietnam manufacturing FDI enterprises (Pupos, 2014) serve as typical examples. Many of them are hired to accomplish difficult and hazardous jobs at the worksite.

3.1.3. Employment-based social security and other financial benefits

Another no less important dimension to assess the penalties or rewards of NSFE is workers' access to social insurance system and corporate fringe benefits such as paid holiday leave, sick leave, regular bonuses, and retirement allowance and so on. A general viewpoint to the disadvantage of NSFE is an insufficient/reduced access to workplace benefits and social security protection (OECD, 2000, cited in Usami, 2010; OECD, 2014).

In most countries in Asia, social security is provided for regular workers in formal public and private sectors through the contributory system, with employers and employees contributing to a common fund under certain formulas. Labour laws are generally silent on the social security for the non-regular workers, including those who are engaged in temporary contract, or daily jobs (Ofreneo, 2013).

⁵ Engellandt and Riphahn (2005) analyze data from Swiss Labour Force Survey and find that temporary workers are significantly more likely to work unpaid overtime hours than permanent workers. Dixon (2009) finds that fixed term contract and temporary agency workers in New Zealand had substantially longer standard weekly working time than permanent workers.

In Asian developing countries, the penalty of informal workers concerning their high incidence of being unprotected in social terms is quite apparent since the majority of NSFE in these countries is also informal employment. In Indonesia, Akatiga Foundation *et al.* (2010) report from a self-conducted survey that the share of fixed-term contract workers and outsourced workers covered by social security were respectively 89.6 and 86.5 per cent, considerably less than 96.6 per cent among permanent employees (Akatiga Foundation *et al.*, 2010; cited in Marasigan & Serrano, 2014).

In addition to the insufficient access to social security, there is also unequal treatment regarding fringe benefits towards workers in NSFE compared to regular workers. Particularly, in some forms of non-standard jobs such as piece-rate jobs (e.g., on-call, daily jobs) workers rarely enjoy fringe benefits. Moreover, lower level of corporate fringe benefits for non-regular workers appears to be associated with discriminatory treatment as well as shorter tenure for non-standard work. In Vietnam, for example, Pupos (2014) indicates that temporary workers or agency/dispatch workers rarely receive any bonus or grant, and if they do it would be much lesser compared to what the permanent workers receive. Baseline studies conducted in Bangladesh (Hossain *et al.*, 2010) and in Nepal (Uprety & Singh, 2010) report that short-term hiring is a prevalent practice, whereby workers do not get non-wage benefits such as medical allowance, maternity protection, bonuses enjoyed by their counterparts holding regular jobs.

3.1.4. Other non-financial benefits

Last but not least, the NSFE rewards/penalties can also be viewed from the perspective of other employment-based non-financial benefits such as the possibility of benefitting from training, trade union membership and collective bargaining.

First, non-standard workers constitute an important component of peripheral workforce. They are less likely to receive employer-sponsored job training, compared to the core workforce made up of formal, standard workers (Gallie, 2007; Booth *et al.*, 2002; Connell & Burgess, 2006). According to ITUC (2014), the non-standard workers' penalty in terms of reduced/absent firm-provided training has been found in Singapore and Sri Lanka. Bhandari and Hesmati (2006) consider the gap in access to training as a factor explaining wage differential between permanent and non-standard employees in India. The descriptive figures in their study indicate that the proportion of permanent employees benefiting from advanced skill training is greater than those who hold non-standard jobs (20.3 per cent compared to 12.5 per cent).

However, besides the employer-sponsored training, employees may also participate in on-the-job training. The limited access to formal training of non-standard can be compensated by this training form. According to OECD (2002), the disadvantage of workers in NSFE as regards training would be less severe when this form of training is taken into account. Indeed, this could be the case of Asian developing countries where informal labour is the norm as the importance of on-the-job training in this sector in Asia is well-documented in the literature (Riita-Liimatainen, 2012).

Second, non-standard workers may encounter difficulties in joining trade unions and in bargaining agreements collectively. In other words, they are unprotected in terms of representation security. Statistically, existing figures in some Asian countries including Korea and Japan indicate generally low rates of participation of non-regular workers in trade union (ITUC, 2014; Yoon, 2009).

Indeed, this NSFE-associated disadvantages come from both worker status and legal exclusions (ILO, 2015). Some NSFE groups such as casual are even left out of labour legislation (ILO, 2013). Casual labours in Western Asian countries like Bangladesh, Qatar and Syria are examples of this exclusion. Worker status in NSFE can also undermine the

effectiveness of labour law regarding workers' rights to freedom of association and to collective bargaining. In many countries in Asia such as Indonesia, Cambodia, the Philippines, Sri Lanka, non-standard workers, having low bargaining position, are afraid to join a union for fear they may lose their jobs or their contract will not be extended (ITUC, 2014). In fact, in Sri Lanka, those short, fixed-term contract employees who attempt to improve conditions through union membership see their contracts not renewed (ibid).

Regarding legal exclusion factor, ILO (2015) generalizes that legal restrictions on the right of non-standard workers to trade union access and to collective bargaining mainly concern workers in multiple party contracts (e.g., temporary agency work, dispatch work). The involvement of multiple parties and short attachment to a single workplace or employer are hindering factors to workers' trade union rights, particularly in Asian countries. For instance, in the Republic of Korea, legislation does not recognize employer as a party to employment relationship when it comes to subcontracted or agency workers (ILO, 2011; Rubiano, 2013). Consequently, workers can neither take part in bargaining nor be covered by collective agreements applying to directly employed workers.

3.2. Career pathway for workers in NSFE

Non-standard employment experience could affect workers' career pathway in multiple ways (Pedulla, 2014; ILO, 2015), acting as either positive or negative factors in their working life. First, these types of positions are seen as an access point into the labour market for school-leavers, immigrants, as well as for other non-employed people to reintegrate in labour force (Gangl, 2003; Andersson & Wadensjö, 2004; Scherer, 2004; McGinnity *et al.*, 2005; Verhofstadt & Goebel, 2008; De Graaf-Zijl *et al.*, 2011; Jahn & Rosholm, 2014; De Lagne, Gesthuizen & Wolbers, 2014).

Considering the subsequent labour market outcomes of flexible entry to the labour market, or of engaging in NSFE in general, there are two opposing perspectives. From a positive view, NSFE is considered as "stepping stones" or "bridge", or "port-of-entry" (Berton *et al.*, 2011) for workers to access to subsequent standard employment. Research addressing this question is scarce for Asian countries, and mostly found for the Republic of Korea and Japan (Table A2 in Appendix). Most of these studies based on descriptive transition matrices to report the estimated densities of movement between different statuses and types of jobs. Accordingly, the rate of yearly transitions from casual to permanent jobs in Indonesia was 5.8 per cent in 2004, and this number was 7.9 per cent for the transitions from non-standard to standard jobs in the Republic of Korea. The study conducted by Esteban-Pretel *et al.* (2002) for the case of contingent workers in Japan indicate no "stepping stone" effect after twenty years of labour market experience when workers start off in a non-standard job.

Conversely to the positive view, there is a substantial body of literature putting forward the negative impacts of participation in NSFE on worker's future employment pathway. There are two possible subsequent scenarios. First, workers in NSFE may sink in "dead-end" employment, whereby they slide back into non-employment status. Second, they may also be entrapped in non-standard employment, if their subsequent job is also non-standard. This transition situation is also termed "entrapment" (Scherer, 2005). Again, evidence on this issue in Asia is only available for Japan and the Republic of Korea (Table A2 in Appendix). According to Esteban-Pretel *et al.* (2011), neither "dead-end" nor "entrapment" hypothesis is confirmed in the case of contingent workers in Japan. They claim that whatever the initial employment status, the probability for a worker to be employed at a regular job becomes the same after 20 years. There is other evidence indicating the disadvantages of non-standard workers in terms of employment status transitions. Okudaira *et al.* (2013), for instance, assert that, for non-standard workers in the Republic of Korea, the risk of becoming non-employed (unemployed or inactive) appears to be higher than the chance of obtaining permanent jobs.

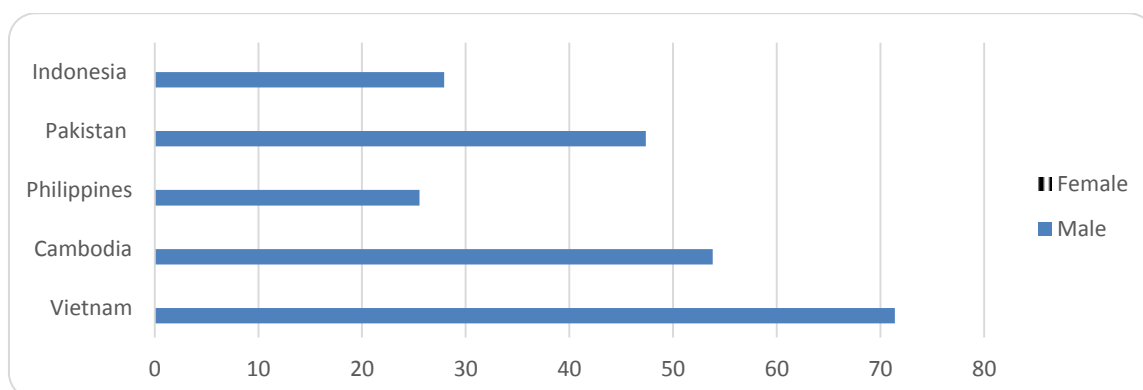
4. A profile of temporary workers and factors determining temporary employment in selected Asian countries

4.1. Demographic and educational profile of temporary workers

4.1.1. Sex

Figure 4 shows the shares of female and male temporary workers among total female and male wage employees in the five Asian countries. Except in the case of Pakistan, males were more likely to engage in temporary jobs relative to females. Indeed, Indonesian time-series data further confirm a stable ubiquity of casual jobs among male workers rather than among females over a decade (Figure 5).

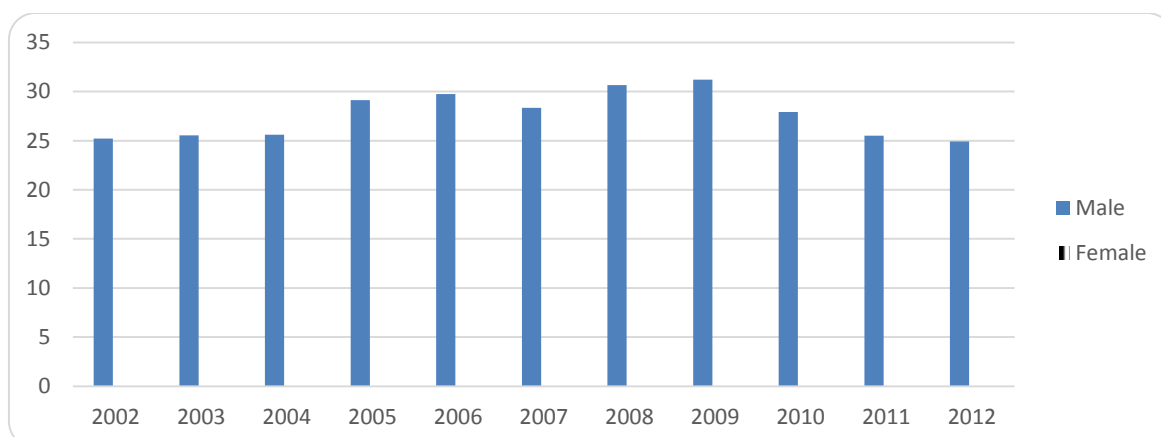
Figure 4. Temporary workers as percentage age of wage employees in selected Asian countries, by sex



Note: For Indonesia, temporary employment only includes casual jobs.

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2009; Pakistan: LFS 2008-2009; Indonesia: LFS 2010. Authors' calculation.

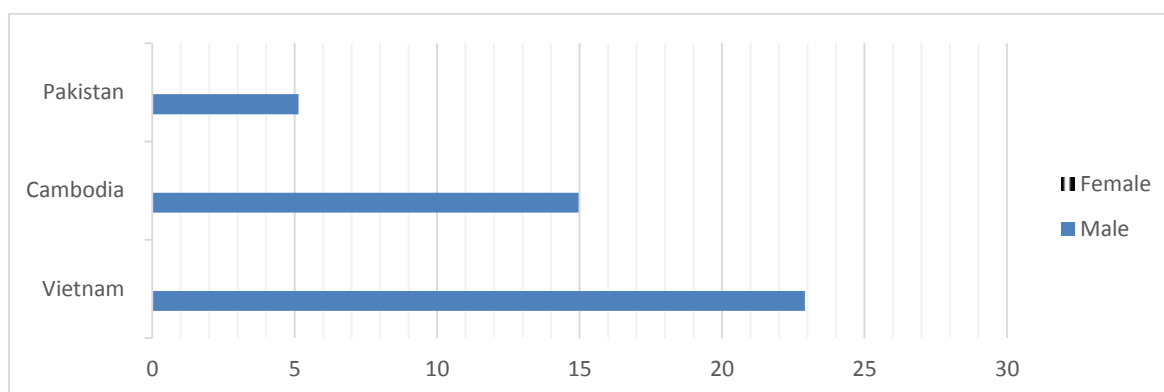
Figure 5. Casual workers as percentage of wage employees in Indonesia, 2002-2012



Source: Indonesian LFS 2002-2012. Authors' calculation.

In contrast, while taking only FTC workers into account, Vietnam and Cambodia data show a dominance of women over men, whereas, the FTC employment shares of males and females were almost equally low, at around five per cent in Pakistan (Figure 6).

Figure 6. Workers with FTC, as percentage of wage employees in selected Asian countries, by sex

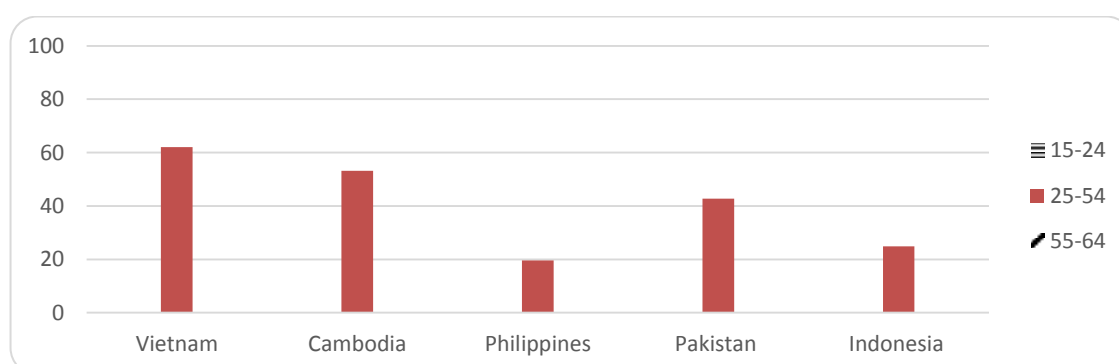


Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009. Authors' calculation.

4.1.2. Age

Figure 7 presents the age profile of temporary workers in selected countries. In general, the incidence of temporary employment was highest among the youngest (Vietnam, The Philippines and Pakistan) and the oldest workers (Cambodia, Indonesia). Temporary employment constituted up to 86 per cent and 61 per cent among youth in Vietnam and Pakistan, respectively. In the Philippines, the proportion of young workers engaging in temporary jobs was twice as much as it was for prime-aged workers, reaching 40 per cent by 2009. By contrast, in Cambodia and Indonesia, older workers are more engaged in temporary employment. Yet, the incidence of temporary employment cuts rather evenly across various age groups in Cambodia, ranging from 53 per cent for 15-24 to 57percent for over 55 year-old workers.

Figure 7. Temporary workers as percentage of wage employees in selected Asian countries, by age group

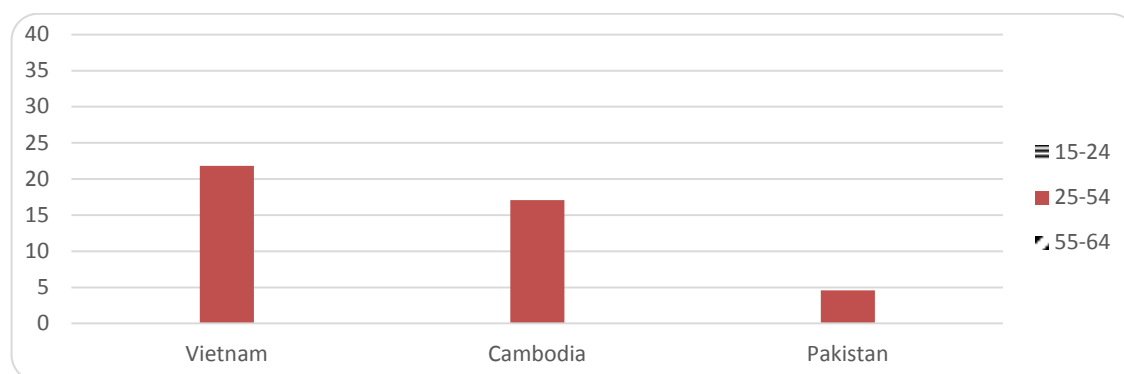


Note: For Indonesia, temporary employment only implies casual jobs.

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2009; Pakistan: LFS 2008-2009; Indonesia: LFS 2010. Authors' calculation.

Similar patterns of age composition emerged for FTC workers in Vietnam and Pakistan, where the older workers are less likely to acquire FTC jobs (Figure 8). A contrasting phenomenon was recorded in Cambodia, with the youngest being the least associated with FTC employment, at only half of the oldest workers' rate (13 per cent versus 26 per cent).

Figure 8. Workers with FTC, as percentage of wage employees in selected Asian countries, by age group

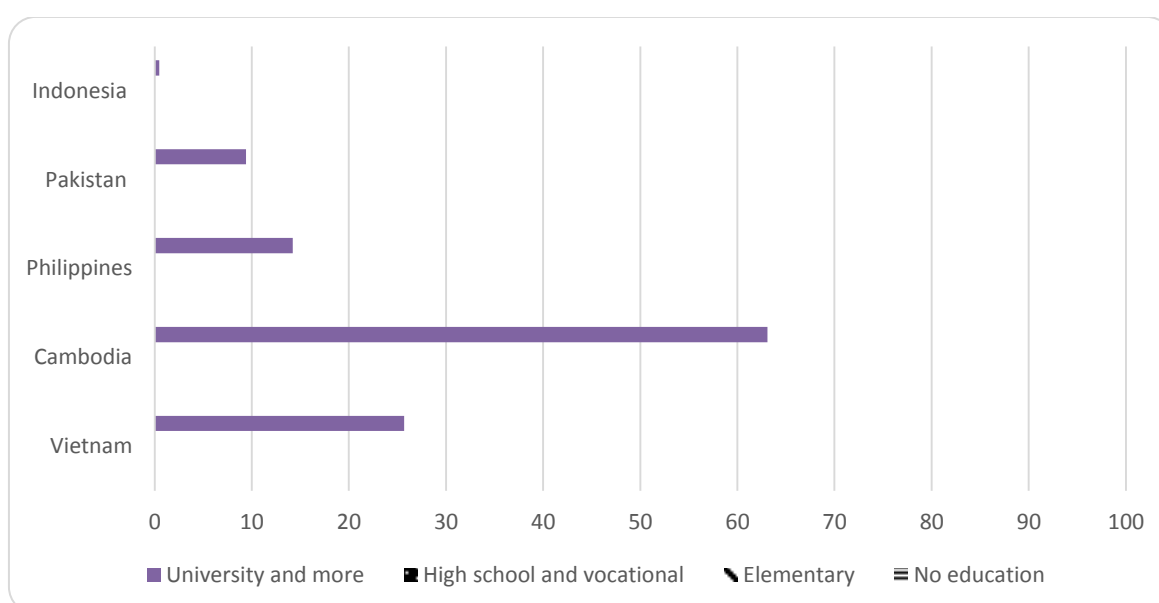


Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009. Authors' calculation.

4.1.3. Educational level

Figure 9 gives information on temporary employment incidence in association with educational background. In most of the studied countries, the higher level of education was the less likely wage employees were engaged in temporary work. Vietnam serves as a typical example. Whereas only one quarter of highly qualified employees was working temporarily, almost all labourers with no education were temporary (96 per cent). Likewise, in Indonesia, workers with tertiary education and above rarely ever took part in casual jobs (0.5 per cent). A contradicting pattern arose in Cambodia, with the best educated workers engaging the most in temporary work, at 63 per cent, even though there was also a remarkably high incidence of temporary employment among other less educated groups (from 49 per cent to 59 per cent).

Figure 9. Temporary workers as percentage of wage employees in selected Asian countries, by level of education

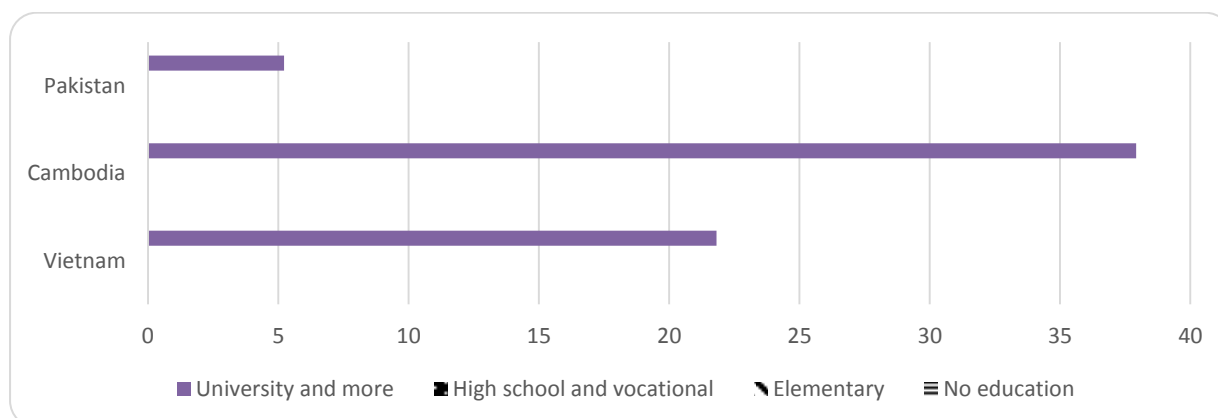


Note: For Indonesia, temporary employment only implies casual jobs.

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2009; Pakistan: LFS 2008-2009; Indonesia: LFS 2010. Authors' calculation.

A closer look at fixed-term workers possibly brings further insights (Figure 10). In Cambodia, once again, workers having completed university education were the most likely to take a fixed-term job. Even more astonishingly, it appears that the higher worker's education, the larger probability of engaging in FTC. This probably reveals the privilege of that employment category in Cambodia. By contrast, in Vietnam and Pakistan, high school and vocational training graduates were the most inclined to fixed-term employment, at 34 per cent and five per cent, respectively. However, there was minimal variation among different education groups in Pakistan.

Figure 10. Workers with FTC, as percentage of wage employees in selected Asian countries, by level of education



Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009. Authors' calculation.

4.2. Sectoral and occupational characteristics

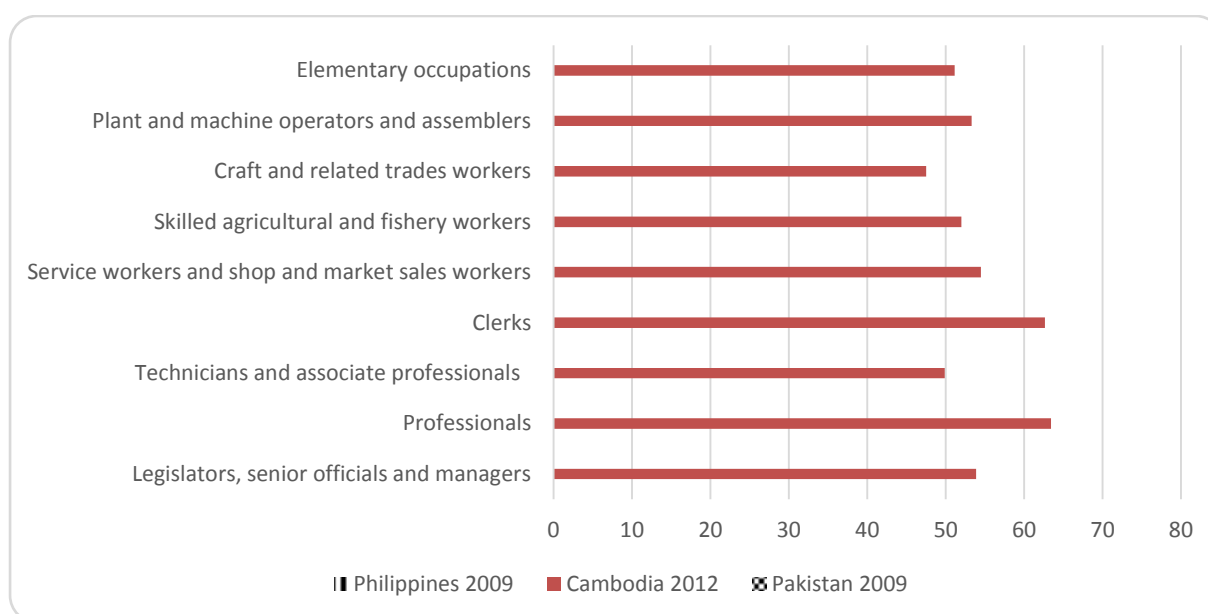
Temporary workers might probably engage in other sectors and occupations than standard workers do. The primary focus of the following analyses is temporary wage employment in general and its specific forms (i.e., FTC and casual workers) in particular.

4.2.1. Temporary employees

As aforementioned, the available data only allow the determination of temporary workers according to the ILO definition in four countries of our sample: Pakistan, Cambodia, Vietnam and the Philippines.

Regarding occupations, due to an absence of the related information in Vietnamese data, the cross-country comparison could only be conducted for Pakistan, Cambodia and the Philippines. Figure 11 reports a common pattern of incidence across different groups in Pakistan and the Philippines. Indeed, temporary contracts were more relevant among low skilled workers, particularly in elementary occupations and craft and related trade workers. The incidence of these occupations, expressed as a percentage among wage workers, was 72.7 per cent and 70 per cent in Pakistan, and 36 per cent and 25.5 per cent in the Philippines, respectively. High skilled workers were less likely to be employed under temporary status. For example, only 4.5 per cent of managers in the Philippines or 12 per cent in Pakistan were temporary workers. In Cambodia, the picture is different, as managers and professionals featured a higher incidence of temporary contracts, even though temporary workers are popular in all occupations in Cambodia.

Figure 11. Incidence of temporary workers in selected countries

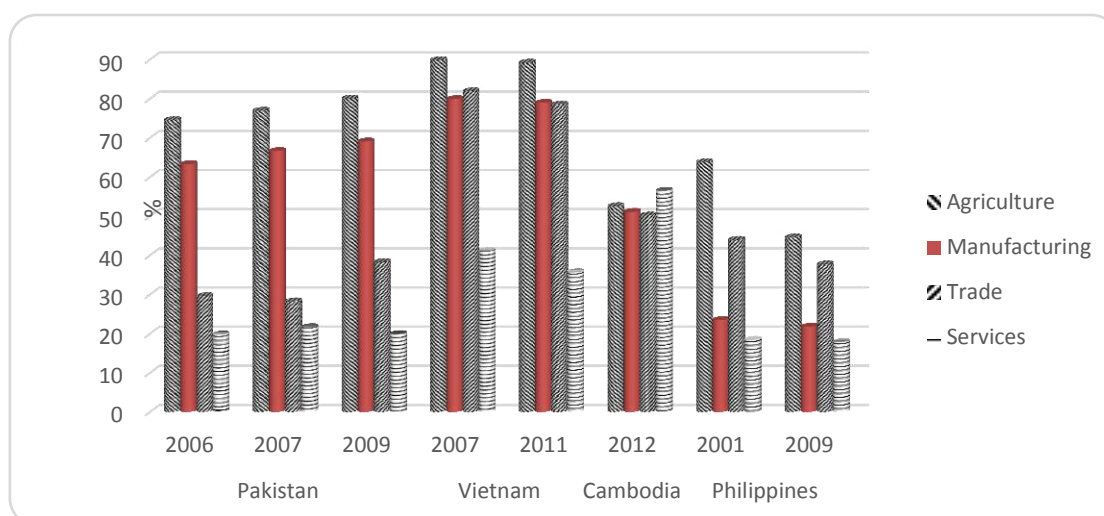


Source: Philippines: LFS 2009; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009. Authors' calculation.

The two contrasting patterns observed in these countries appear to be in line with the worker's educational profile shown in section 3.1.3. Therefore, in Cambodia, questions could be raised on the motivation of highly educated workers, who might easily obtain permanent positions, but actually dominantly engaged in temporary, yet seemingly "good" jobs. Further study on wage rate in the next section would probably shed light on the voluntariness of temporary workers.

Turning now to industry, Figure 12 shows that in general, temporary employees were most likely to locate in Agriculture (more than 74 per cent in Pakistan, 89 per cent in Vietnam and 44 per cent in the Philippines) and least likely to work in Services sector (less than 22 per cent in Pakistan and Philippines, and 42 per cent in Vietnam), with an exception of Cambodia. Particularly, Vietnam's and Pakistan's agriculture and manufacturing sectors are dominated by temporary wage workers. In Cambodia, there is quasi-equality in terms of use of regular and temporary wage workers in all four sectors.

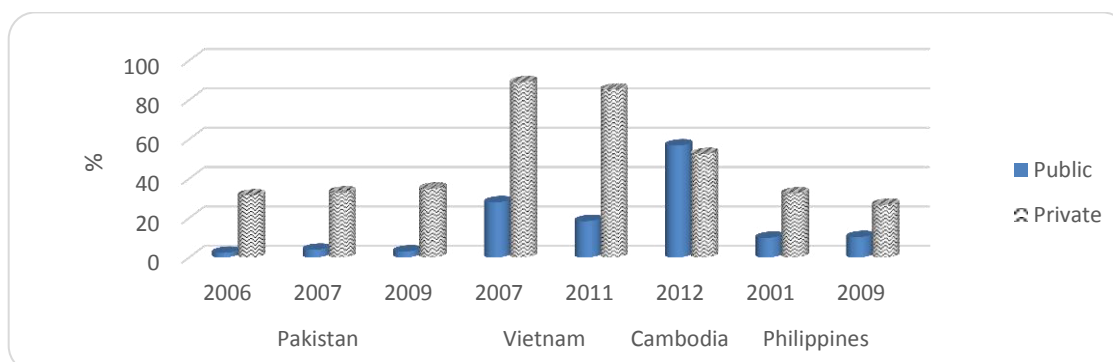
Figure 12. Incidence of temporary employment by industry in selected countries



Source: Vietnam: LFS 2007, 2011; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2001, 2009; Pakistan: LFS 2005-2006, 2006-2007, 2008-2009. authors' calculation.

Considering institutional sector, the incidence of temporary employment is reported in Figure 13. In three among four studied countries, public sector was substantially less likely to employ temporary wage workers than private sector was. In Cambodia, both public and private sector firms employed more temporary than regular wage workers, and the use of temporary employees was a little more prevalent in the public sector. The incidence of temporary employment in private sector spanned from 27 per cent in the Philippines (in 2009) to 89 per cent in Vietnam (in 2007).

Figure 13. Incidence of temporary workers by business type in selected countries



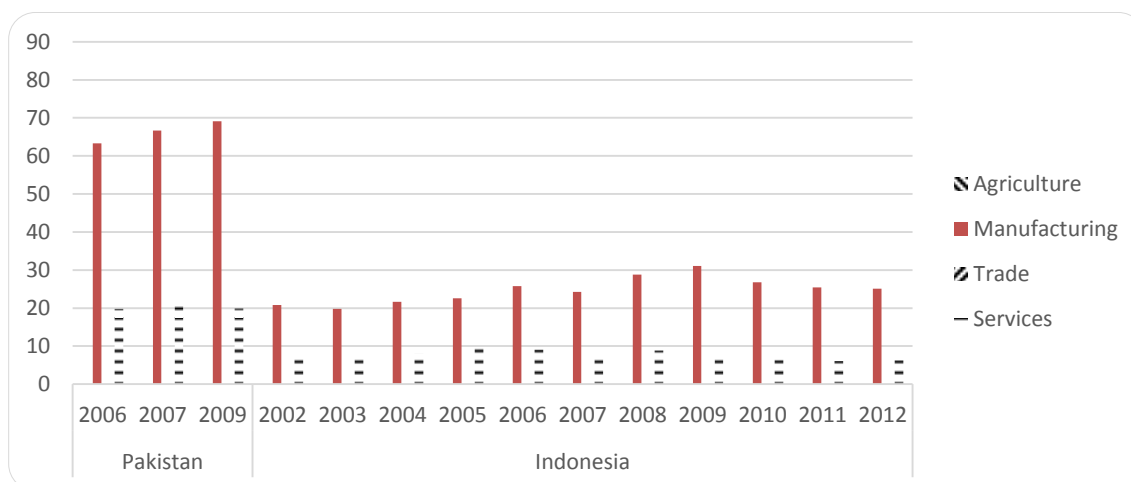
Source: Vietnam: LFS 2007, 2011; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2001, 2009; Pakistan: LFS 2005-2006, 2006-2007, 2008-2009. authors' calculation.

4.2.2. Casual workers

The identification of casual workers is possible only for Pakistan and Indonesia; and the Indonesian LFS lacks questions specifying the institutional sector of firms. As a consequence, the analysis in this subsection only concerns casual workers by industry and occupation. Generally, casual arrangements were most prevalent in agriculture, where casual workers accounted for about two-thirds of overall wage employment (Figure 14). Manufacturing came in the second place, followed by trade and service sectors. In Pakistan, services sector employed the least proportion of casual workers in available years. In contrast,

over the 2002-2012 period in Indonesia, the share of casual jobs in total wage employment in the service sector at times exceeded that in the trade sector.

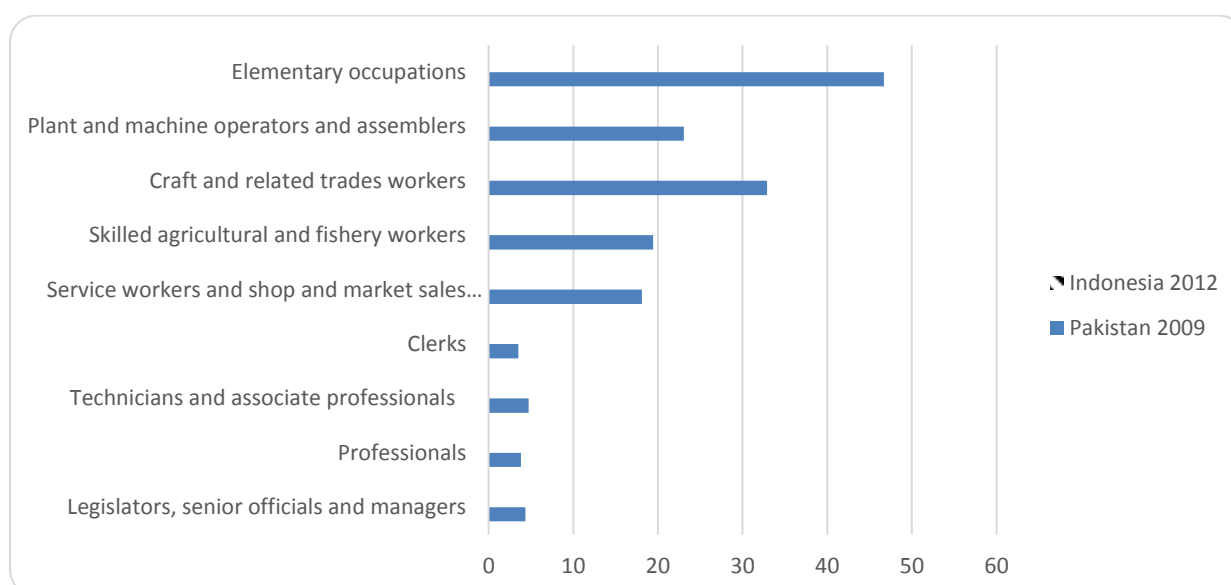
Figure 14. Incidence and trend of casual workers by industry in Pakistan and Indonesia



Source: Pakistan: LFS 2005-2006, 2006-2007, 2008-2009; Indonesia: LFS 2002-2012. Authors' calculation.

Figure 15 reports that casual jobs seem to be held by unskilled workers rather than skilled ones (except skilled agricultural and fishery workers in Indonesia). A considerable proportion of elementary occupations and craft and related trade workers are casual; whereas, casual workers could hardly be found among Legislators, senior officials and managers, professionals or technicians and associate professionals positions. For example, in Indonesia, no legislators, senior officials and managers are employed casually, and the incidence of the other two categories was negligible (less than one per cent). This situation seemed to stay intact during the studied period (2005-2009 for Pakistan and 2002-2012 for Indonesia). As for temporary workers in the Philippines, Cambodia or Pakistan, this finding could be explained by the fact that white-collar positions do not feature casual types of employment relationship.

Figure 15. Incidence of casual workers by occupations in Pakistan and Indonesia

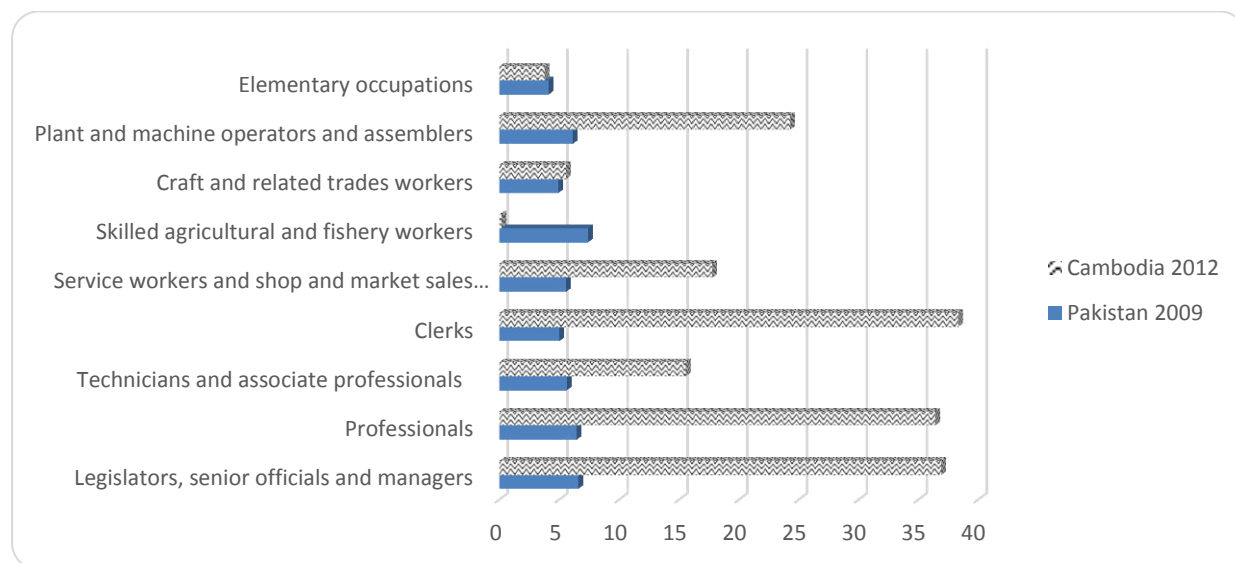


Source: Indonesia: LFS 2012; Pakistan: LFS 2008-2009. Authors' calculation.

4.2.3 Fixed-term contract workers

In general, FTC were quite popular among white-collar occupations and plant and machine operators and assemblers in Cambodia and Pakistan (Figure 16). While the incidence of FTC in skilled agricultural and fishery workers was fairly high in Pakistan (7.4 per cent), it was just marginal in Cambodia (0.2 per cent). In contrast, whilst FTC rate was moderate in “Plant and machine operators and assemblers” in Pakistan (6.1 per cent), this occupation in Cambodia largely employed fixed-termed workers (24.3 per cent).

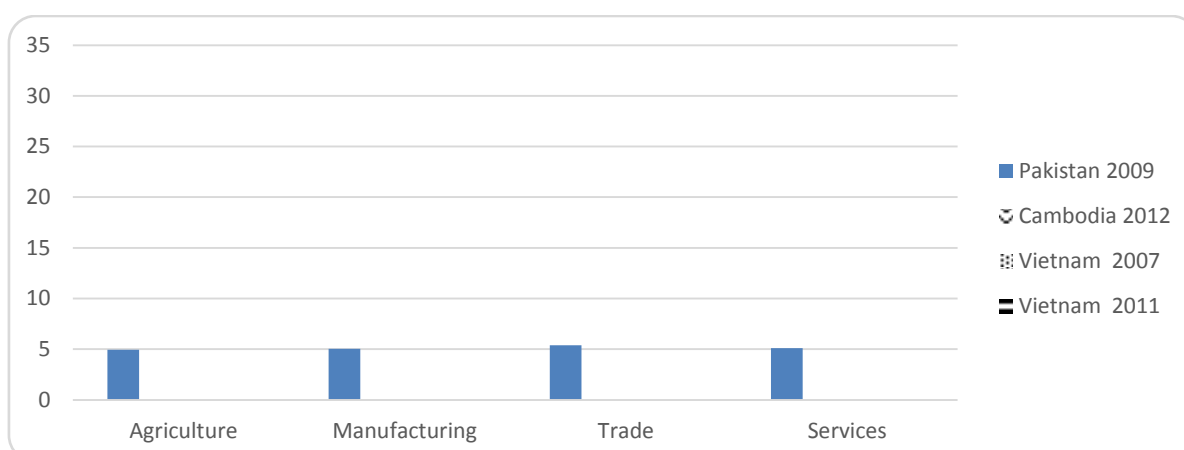
Figure 16. Incidence of FTC workers by occupations in Pakistan and Cambodia



Source: Pakistan: LFS 2008-2009; Cambodia: LFS 2012. Authors' calculation.

Figure 17 presents different patterns in the distribution of FTC employment across industries in Pakistan, Cambodia and Vietnam. In Pakistan, FTC was more or less equally used across industries, at around five per cent. In Vietnam, FTCs are more relevant in Manufacturing and Trade (approximately 30 per cent) than in Services. In contrast, Cambodian workers in Services sector are the most likely to be employed on FTC (25.2 per cent), as compared to 15.2 per cent in Manufacturing and only 11.8 per cent in Trade sector. In both countries, FTC is least prevalent in agriculture (2.5 per cent in Cambodia, 9.4 per cent in Vietnam in 2007, and three per cent in Vietnam in 2011).

Figure 17. Incidence and trend of FTC workers by industry in selected countries



Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2009; Pakistan: LFS 2008-2009; Indonesia: LFS 2010. Authors' calculation.

Table 1 provides information on the incidence of FTC in public and private sectors in three Asian countries. In Pakistan and Vietnam, FTC was slightly more ubiquitous in private businesses than in public institutions; whereas the opposite was true in Cambodia. In 2012, FTC employment accounted for up to 35 per cent in the Cambodian public sector, in comparison with merely 12 per cent in private counterparts.

Table 1. FTC workers, as percentage of wage employees in selected Asian countries, by institutional sector

	Pakistan 2009	Cambodia 2012	Vietnam 2007
Public	3,78	35,22	23,54
Private	5,56	12,1	25,66

Source: Pakistan: LFS 2008-2009; Cambodia: LFS 2012 ; Vietnam : 2007. Authors' calculation.

4.3. The determinants of temporary employment

This sub-section seeks to assess if certain personal and job characteristics are significantly associated with temporary forms of employment. In these analyses, probit models are applied. A binary variable indicating temporary employment is used as the dependent variable. Independent variables include individual demographic characteristics (age, gender, marital status, education, household head), employment-related characteristics (industry, occupation, institutional sector), and geographical characteristics (region, metropolitan area). Additional variables could be included, based on data availability of each country, such as potential labour market experience,⁶ ethnicity, migration status, informality, business size and trade union membership (Salladarre & Hlaimi, 2014).

Regression results are reported in Table 2. Overall, temporary employment is significantly correlated with almost all of the aforementioned characteristics in the selected

⁶ Labour market experience could be approximated to a certain level of accuracy only for Vietnam. It is considered as individual age minus her years of schooling minus 6.

countries, and correlation directions are sometimes different from what initial descriptive statistics suggest.

In general, there exist a U-shaped relation between age of workers and their probability of doing in temporary jobs with an exception of Cambodia where age variables are insignificant. In other words, temporary employment is the least prevalent among the prime-aged workers. Temporary employment is also positively associated with individuals' potential labour market experience in Vietnam, and the association becomes stronger as experience increases.

In Vietnam, Cambodia and Indonesia, females are less likely to work temporarily than males; while the opposite is true in Pakistan and the Philippines. Astonishingly, belonging to minor ethnic groups in Vietnam reduces possibility of being a non-permanent worker by 3.1 per cent points, *ceteris paribus*. Temporary employment is not related to workers' marital status in Cambodia and Pakistan; whereas these variables are correlated in the remaining countries. Vietnamese married and widowed workers are less likely to occupy a temporary job, whilst an opposite phenomenon is observed in Indonesia. In this country, having divorced might be risky in the sense that it raises the likelihood of being a temporary worker by up to 5.6 percentage points.

Obtaining any kind of education instead of no education lowers the probability of being employed temporarily in all countries except Vietnam, where the first two levels of education might raise it. The fact of being household heads in Vietnam, Indonesia and the Philippines decreases workers' possibility of holding temporary posts by 2.5, 2.7 and 1.1 percentage points, respectively.

Migration coefficient reveals noteworthy evidence in Pakistan: newly migrated workers (less than one year since their arrival) tend to engage in temporary employment 7.5 percentage points more than non-migrants, *ceteris paribus*. This could be attributed to their newcomer disadvantage, such as a lack of information and network. By contrast, five-year-and-over migrants are more inclined to obtain permanent jobs. In Cambodia, migrants from another village in a same province are less likely to work temporarily compared to local workers, by 4.4 per cent points. Although these results would not be clear enough to be evidence of 'stepping stone' effect, the role of temporary employment as an assessing point for migrants in the labour market at the destination is empirically revealed.

Job characteristics such as industry and institutional sector are strongly correlated with temporary forms of employment. In general, working for public sector substantially reduces the risk of engaging in temporary employment. Exceptionally in Vietnam, working in the public sector is associated with a higher possibility of working temporarily, as compared to the domestic private sector. This is perhaps because informality is already controlled for. Unsurprisingly, foreign-invested sector in Vietnam is less inclined to hire temporary employees. While all non-agricultural industries have a negative correlation with temporary employment status in Indonesia and Pakistan, the opposite is found in Vietnam. In the Philippines, manufacturing and services are also negatively associated with temporary employment, and services coefficients have larger magnitudes than manufacturing. Meanwhile, employment in trade sector is more likely to be temporary by 14.2 percentage points in this country, taking agriculture as reference category. In Cambodia, there are no significant correlations between industries and temporary employment.

Finally, after controlling for regions, rural area workers are more likely to work temporarily than their urban counterparts in Vietnam, Cambodia, Indonesia and Pakistan. The reverse is true in the Philippines: the presence in rural areas lowers employees' probability of doing a temporary job by 1.6 percentage points.

Table 2. Determinants of temporary employment in selected Asian countries

	Vietnam Temporary	Cambodia Temporary	Indonesia Casual	Pakistan Temporary	Philippines Temporary
<u>Individual characteristics</u>					
Age	-0.065*** (0.003)	0.001 (0.003)	0.000 (0.000)	-0.022*** (0.003)	-0.012*** (0.001)
Age squared	0.000*** (0.000)	0.000 (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Experience	0.038*** (0.002)	No	No	No	No
Experience squared	0.000*** (0.000)	No	No	No	No
Gender Female	-0.067*** (0.004)	-0.035*** (0.014)	-0.026*** (0.003)	0.058*** (0.013)	0.019*** (0.003)
Ethnicity: minor	-0.031*** (0.008)	No	No	No	No
<u>Marital status (reference: single)</u>					
Married	-0.065*** (0.005)	0.013 (0.018)	0.029*** (0.003)	-0.021* (0.013)	-0.018*** (0.004)
Widowed	-0.054*** (0.017)	0.058 (0.042)	0.043*** (0.007)	-0.013 (0.033)	0.007 (0.008)
Divorced	-0.023 (0.016)	0.054 (0.045)	0.056*** (0.006)	0.046 (0.051)	0.007 (0.011)
<u>Education (reference: no education)</u>					
Primary and secondary	0.068*** (0.014)	-0.057 (0.039)	-0.047*** (0.005)	-0.049*** (0.013)	0.008 (0.010)
High school	0.069*** (0.018)	-0.070* (0.038)	-0.113*** (0.005)	-0.116*** (0.011)	0.004 (0.010)
University and above	0.034 (0.022)	-0.044 (0.039)	-0.234*** (0.010)	-0.236*** (0.019)	-0.020* (0.010)
Head of household	-0.025*** (0.005)	-0.007 (0.019)	-0.027*** (0.003)	-0.013 (0.010)	-0.011*** (0.004)
<u>Migration (reference: non migrant)*</u>					
	No		No		No
1		-0.044** (0.017)		0.075* (0.041)	
2		-0.010 (0.019)		0.037 (0.025)	
3		-0.098 (0.096)		-0.057** (0.027)	
4				-0.047*** (0.013)	
<u>Job characteristics</u>					
<u>Industry (reference: agriculture)</u>					
Manufacturing	0.203***	-0.021	-0.189***	-0.159***	-0.012**

	(0.008)	(0.021)	(0.003)	(0.022)	(0.005)
Trade	0.200***	-0.050	-0.208***	-0.140***	0.142***
	(0.007)	(0.039)	(0.005)	(0.030)	(0.010)
Services	0.147***	-0.019	-0.207***	-0.263***	-0.056***
	(0.009)	(0.023)	(0.004)	(0.021)	(0.004)
Occupation	No	Yes	Yes	Yes	Yes
Informal sector	0.280***	No	No	0.197***	No
	(0.008)			(0.008)	
<u>Institutional sectors (reference: domestic private)</u>					
Public sector	0.101***	-0.049**	No	-0.562***	-0.003
	(0.008)	(0.024)		(0.011)	(0.006)
Foreign invested	-0.324***	No	No	No	No
	(0.008)				
Business size	Yes	Yes	No	No	No
Trade union membership	No	0.086***	No	No	No
		(0.019)			
<u>Geographic characteristics</u>					
Rural area	0.026***	0.080***	0.063***	0.016**	-0.016***
	(0.005)	(0.021)	(0.002)	(0.008)	(0.003)
Region	Yes	Yes	Yes	Yes	Yes
Constant	4.147***	-0.005	-2.703***	2.885***	-0.102
	(0.108)	(0.222)	(0.313)	(0.173)	(0.211)
Number of observations	117,776	9,061	165,701	25,998	76,430

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

*For Pakistan: 1: Migrant less than 1 year, 2: Migrant since 2-4 years, 3: Migrant since 5- 9 years, 4: Migrant since 10 years and over

For Cambodia: 1: migrant from another village in this province, 2: migrant from another province, 3: migrant from another country

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009; Indonesia: LFS 2007; The Philippines LFS 2008. Authors' calculation.

5. Employment conditions

This section describes the differences in conditions of work in regular jobs and in non-standard employment relationships, including wage rate, working hours, social security, paid holiday, sick leave, union membership and so forth. The aim of this section is to depict temporary workers as a part of the labour force, to elucidate their employment patterns, and to identify if their employment outcomes significantly differ from those of standard workers, which could be important from a welfare perspective (Dixon, 2009).

5.1. Working hours and wages

Information on hours worked in main job per week can be obtained for all selected countries. Table 3 reports average weekly hours spent in the main job for different groups of non-standard workers as well as standard workers. The results show generally long weekly working hours of full-time wage employees. Differently from the belief that temporary workers suffer from long working hours, there are systematically unimportant gaps of working hours between workers employed in temporary jobs compared with permanent full-time workers in these countries. Workers holding standard jobs worked even a bit longer weekly hours than temporary workers, except in the case of Vietnam in which temporary workers spent weekly on average near five hours more than permanent full-timers in the main job in 2007. However, this working-hour gap in Vietnam has been reduced to one hour in 2011 as there has been a substantial increase in weekly hours worked among standard workers relative to temporary workers. This would be explained as a response pattern of firms facing difficulties since the economic downturn in this period. Empirically, Nguyen *et al.* (2010) indicate that, as a consequence of the adverse condition in the period 2007-2009, the share of temporary workers working without labour contract in business sector has significantly declined in the two biggest cities in Vietnam since enterprises could not afford to keep hiring these temporary workers, resulting in higher working time intensity for the permanent workers.

Table 3. Average weekly working hours of employees

	Vietnam		Cambodia	Philippines		Pakistan			Indonesia		
	2007	2011	2012	2001	2009	2005	2007	2008	2002	2007	2012
Standard	45,8	49,43	53,42	49,77	50,1	52,35	52,00	49,29	47,6	49,55	48,95
Temporary	50,68	51,21	53,07	48,75	49,92	51,89	51,44	50,76	-	-	-
	-	-	-	-	-	-	-	52,94	-	-	-
Casual	-	-	-	-	-	52,11	51,95	51,2	46,54	48,37	48,05
Temp. and part-time	24,01	25,78	22,81	19,75	19,73	24,67	29,92	26,04	-	-	-
Casual and part-time	-	-	-	-	-	25,52	27,75	27,70	21,82	23,25	22,77
Non-standard	48,64	35,72	46,65	33,38	32,89	47,38	47,48	48,23	34,1	33,87	31,82

Note: For Indonesia, temporary employment only implies casual jobs.

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2009; Pakistan: LFS 2008-2009; Indonesia: LFS 2010. Authors' calculation.

As average weekly working hours reveal little difference between temporary/casual and permanent full-time wage earners in these Asian countries, a closer look at the working time patterns would provide further information to assess the working condition of temporary workers in terms of working time. Unfortunately, LFS data in these countries do not provide detailed information on working time patterns. Although the Pakistan's and Indonesia's LFS questionnaires include a question detailing workers' working hours in the main job for each day of a week, no such detailed information is actually provided in the data since there found only one variable containing the total number of hours worked (i.e., the sum of the number of working hours all the days of the reference week). Cambodian LFS provides information on working hours each day of the week, but these figures mix main job and secondary job together. The LFS data from the Philippines provide neither separated information on non-standard working time, but an assessment of the job-related reason explaining long working hours in the main job is still enabled. Our computation is based on a question asking employees who worked over 48 hours per week about the main reason for that. Among the listing reasons accompanied the question, "requirement of the jobs" (i.e., involuntarily) is supposedly related the most to job characteristics. Again, no difference can be found between

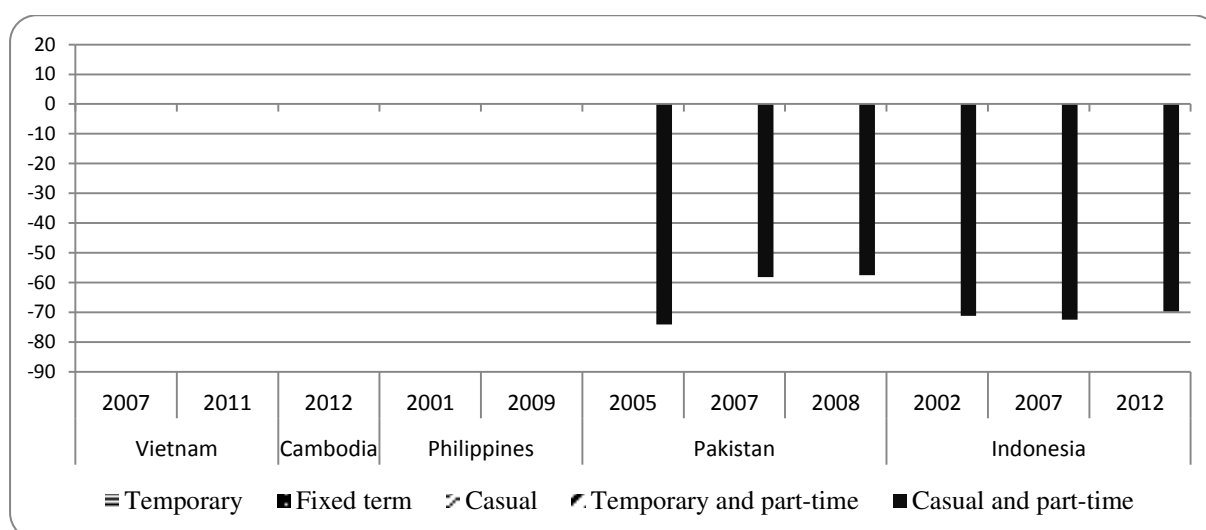
temporary and permanent employees in the estimated results from this question. The incidence of temporary wage employees who worked overtime due to job requirement was 62.7 per cent, slightly lower than the corresponding number for standard workers (65.7 per cent).

Wage gaps compared to standard employment

In comparing wage levels, it is important to rely on estimates of both hourly and monthly wages since each type of statistics has its particular implication for different forms of employment.

Figure 18 presents relative monthly wage differentials (percentage lower (-)/higher (+) average monthly wage) between each form of temporary employees and their counterparts holding a full-time permanent wage job. In consistence with the findings in the literature, the results show general disadvantages in terms of remuneration of temporary employment relative to standard jobs. The raw wage gaps appear more significantly important in Indonesia and Pakistan where casual employees earned monthly on average more than 40 percent less than standard workers.

Figure 18. Average monthly wage gaps



Note: For Indonesia, temporary employment only implies casual jobs.

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2009; Pakistan: LFS 2008-2009; Indonesia: LFS 2002, 2007 and 2012. Authors' calculation.

Considering each form of temporary employment, those who were engaged in employment characterised by both non-permanent and part-time status were the least paid. Their monthly average wages were only one-fourth the monthly wage levels of standard employees in Indonesia and Pakistan, and this number amounted to nearly 50 per cent in the other countries. Nevertheless, it is optimistically remarkable that temporary or casual employees engaging in part-time arrangement have experienced significant improvement of the remuneration over the years considered. Consequently, the wage gap of this group has reduced from -62.9 per cent in 2007 to -52.9 per cent in 2011 in Vietnam. As it is shown in the previous section, the share of temporary part-timers has decreased between 2007 and 2011 in Vietnam as a result of the crisis. Therefore, the reduction of wage gap could be partially explained by the change in the structure of employment in a way that the most productive workers managed to be re-hired while other less productive ones had to move. Another

interpretation would be that the crisis reduced the creation of low quality and low paid jobs (Nguyen *et al.*, 2010).

Fixed-term employees appear to be the group that was the least financially disadvantaged. Fixed-term contract workers in Vietnam and Cambodia, in the years 2011-2012, were not financially suffering. Results for Cambodia show an around 11 per cent higher level in their average wage compared with that of those having permanent jobs. This fixed-term contract premium was much lower in Vietnam in comparison with Cambodia, but revealed, however, an amazing change, turning from a negative gap level of more than 20 per cent in 2007 to a positive level of near three per cent in 2011.

Shifting the look to hourly wages (Table 4), the same raw gap patterns can be observed with lower levels as with average monthly gaps, around 20 percentage points in Indonesia, 10 percentage points in the Philippines, and between five and 20 percentage points in Pakistan. The higher gaps when measured by monthly wage can be explained by the distribution of temporary workers across different forms. Amongst all temporary employees, the part-timers tend to have less disadvantaged hourly wage, but they may encounter greater penalty when the comparison is based on monthly wage since their working time is lower than other groups (Table 3). Turning to Vietnam and Cambodia, while no premium can be found for temporary employees in Vietnam, their homologues in Cambodia did benefit from significant premium of nine per cent per hour worked compared with permanent full-time employees.

Table 4. Average hourly wage gaps

	Vietnam		Cambodia	Philippines		Pakistan			Indonesia		
	2007	2011	2012	2001	2009	2005	2007	2008	2002	2007	2012
Temporary	-39,9	-12,2	9,1	-39,7	-36,2	-45,5	-56,5	-41,5			
Fixed-term	-29,1	-2,1	19,4								
Casual						-43,7	-55,1	-40,2	-48,7	-52,6	-46,5
Temp. and part-time	-22,4	-7,7	40,7	-34,6	-37,8	-34,4	-48,8	-25,4			
Casual and part-time						-34,1	-51,0	-21,4	-22,0	-17,5	-5,9

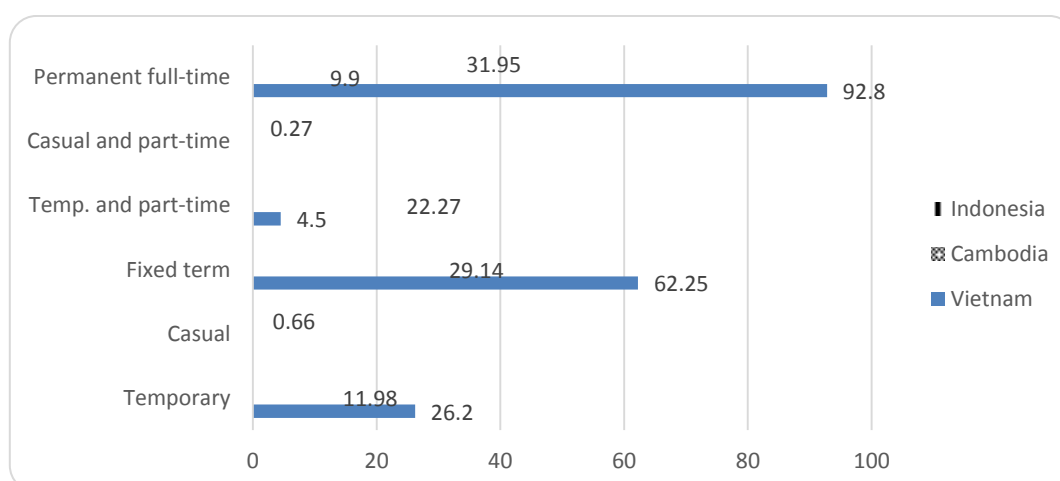
Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Philippines: LFS 2009; Pakistan: LFS 2008-2009; Indonesia: LFS 2002, 2007 and 2012. Authors' calculation.

However, as noted in the previous literature review section, raw wage gaps do not take into account the variety of both personal characteristics and types of employment and firms. Therefore, analyses of wage gaps based on wage equations (see section 5.1) are important to refine and to assess if temporary workers are actually suffering or having a premium in financial terms after controlling for various personal and job characteristics.

5.2. Social security and other corporate benefits

Figure 19 and Table 5 represent the incidence of being covered by employment-related social insurance and other financial benefits associated with both standard and different forms of temporary employment. LFS in Vietnam and Indonesia asked a question “whether the worker received social insurance with the main job”, while no such information is available for the Philippines’ and Pakistan’s data. Cambodia’s LFS provides information on employer’s contribution to any pension or retirement fund which could be used as a proxy for social insurance coverage.

Figure 19. Coverage rate of social insurance



Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Indonesia: LFS 2007. Authors' calculation.

Vietnam stands out as the one among these countries where wage workers benefited the most from corporate social security, particularly those employed in permanent full-time or FTC. A comparison between temporary and standard employees reveals a mixed picture with significant penalty of being employed in temporary jobs in Vietnam and Indonesia, and a minimal premium for the same employee group in Cambodia. Casual workers in Indonesia and temporary employees working part-time hours in Vietnam were very unlikely to be covered by social insurance.

Different forms of questions on paid vacation/sick leave are included in LFS questionnaires of Vietnam, Cambodia and Pakistan. While Cambodian and Pakistani data covered information on both holiday and sick leave, Vietnamese LFS collected only information on holiday leave. In accordance with common viewpoint and evidence in the literature, permanent full-timers in Vietnam were much more likely to be entitled to paid vacation leave than temporary workers (94 per cent compared with 31.2 per cent). Pakistani data exhibit the same gap pattern integrating both types of leave. Conversely, the overall paid leave coverage is relatively low in Cambodia, with temporary workers, of which many were on fixed-term contracts, apparently having higher probability of benefiting from both paid holiday and sick leave.

Table 5. Incidence of entitling paid holiday/sick leaves and having fringe benefits

	Vietnam	Cambodia		Pakistan	
	Paid holiday	Paid holiday	Paid sick leave	Paid holiday/ sick leave	Bonuses
Temporary	31,22	10,7	12,26	14,16	2,53
Casual	-	-	-	9,77	1,81
Fixed term	70,78	25,53	30,19	58,26	4,82
Temp. and part-time	7,55	5,55	5,11	7,51	2,46
Casual and part-time	-	-	-	4,41	1,29
Permanent full-time	94,01	8,95	9,31	70,67	5,48

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009. Authors' calculation.

5.3. Funded training access and union membership intensity

Data on non-financial benefits are not usually available in LFS and there is no exception for the selected countries. Regarding employment-based training benefit, only in the surveys conducted in Pakistan in 2007-2008 and 2008-2009 the information on technical/vocational training can be collected. The interviewee was asked if he has completed any technical/vocational training. The accompanied list of answers to this question allows distinguishing between two types of training, namely, on-job and off-job training. The results are reported in Table 6.

Temporary employees were not much less likely than permanent employees to have received employment-related training. Nearly half of temporary employees, and more than 55 per cent of permanent full-time employees, said that they had benefited from some training sponsored by their employer. Casual employees were the sub-group of temporary employees who were most likely to have received employer-funded training. The participation rate was much lower (less than 5 per cent) among the other sub-groups. These findings in the case of Pakistan are much different from other research work in Asia (Dixon, 2009; Lee & Lee, 2007) indicating that casual employees are usually among the sub-groups benefiting the least from training sponsored by employers.

Table 6. Rate of benefiting from employer-funded training in Pakistan

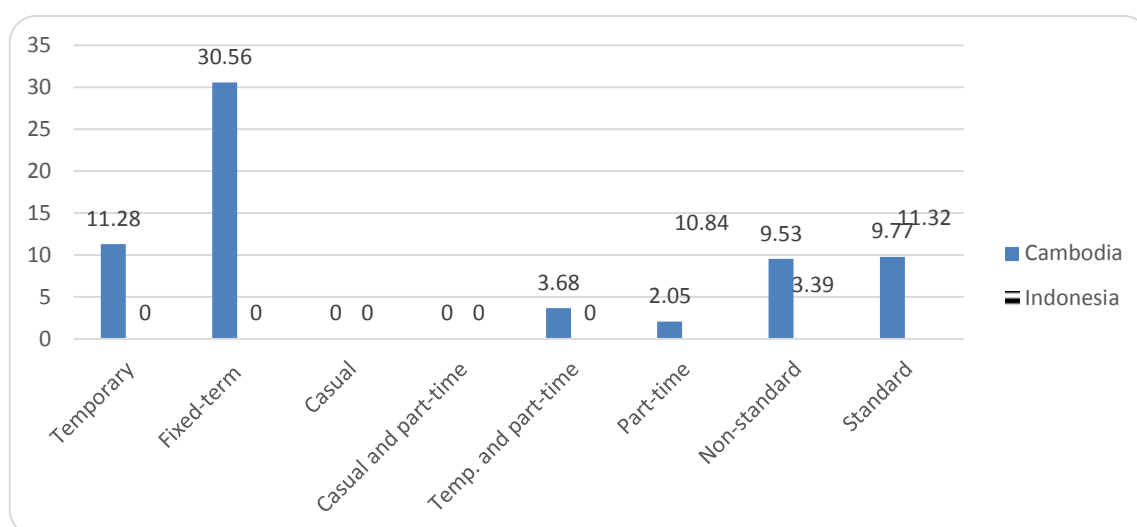
Type of employment	Training	On-job-training	Off-job-training
Temporary	49,23	82,95	17,05
Fixed-term	4,63	79,62	20,38
Casual	25,4	83,25	16,75
Temporary and part-time	4,65	82,64	17,36
Casual and part-time	4,61	100	0
Permanent full-time	55,24	79,78	20,22

Source: Authors' calculation based on Pakistan LFS 2008-2009.

On-job-training is the prevalent mode of training for both temporary and permanent employees in Pakistan. The rate of benefitting from this informal training type among temporary workers was 83 per cent, a bit higher than that of their permanent full-time counterparts (79.8 per cent). Nonetheless, permanent employees had a higher chance of participating in formal job training.

Union membership data were provided neither in Pakistan's nor in the Philippines' and Vietnam's survey. Fortunately, the one-time-only little change (over more than ten waves of the survey) including a simple question to determine the union membership among Indonesian wage workers in 2007 together with the same information in the Cambodia data allows to assess to some extent this aspect of employment condition. The estimated results indicate a significant difference between fixed-term employees in Cambodia and casual employees in terms of union participation intensity. While casual workers had almost no chance to be among union members in both countries, the fixed-term employees in Cambodia were most likely to participate in a union.

Figure 20. Incidence of union membership by employment form



Source: Cambodian Labour Force and Child Labour Survey 2012, Indonesian LFS 2007. Authors' calculation.

6. Econometric analysis of temporary employment penalty

6.1. Wage gap analyses

This sub-section focuses on the analysis of wage gaps based on wage equations and decomposition techniques to refine and to assess if temporary jobs are indeed penalized in financial terms after controlling for various personal and job characteristics. Also, regression-based decomposition of the wage differentials will be conducted to provide further explanation about the main factor determining the gaps.

The general form of the wage equation for all wage workers is set up as:

$$y = Z\alpha + X\beta + \varepsilon$$

Where y denotes the logarithm of the hourly wage, Z is a set of dummy variables representing different forms of temporary employment, α includes parameters representing the wage gaps relative to full-time permanent worker's wage level to be estimated. X is a set of explanatory variables considered as determining the wage rates, and β are associated parameters to be estimated. Finally, ε is the disturbance term or error variable.

In order to obtain comparable results, the same set of core explanatory variables is introduced in the first estimation of wage equation for each of the countries under study. As in the standard Mincerian earning equation, this set of variables consists of demographic characteristics such as gender (equals to 1 if female), marital status (equals to 1 if married), spouse (equals to 1 if yes), age and its square; education levels (no education is taken as the reference group); dummy variables for occupations and industries at two-digit level; and dummies for living in rural areas as well as living in different regions or provinces. Depending on the availability of the information on individuals' years of schooling, a variable reflecting potential labour market experience can be computed and introduced in the

equations.⁷ This is however not the case for Indonesia, Pakistan, the Philippines data where there was no information to compute exactly individuals' years of schooling.⁸

Based on the country data, the estimation of wage equations is then augmented with additional variables specifically available for each country. Basically, these augmented equations allow notably controlling for job characteristics and employment conditions. As shown in the previous descriptive analyses, information on different aspects relating to employment condition is not collected in a comparable way in different countries. Thus, depending on the availability of data, certain variables are generated and included in the wage equations for each country.

Besides measuring wage gaps at mean wage level, estimation of quantile regression is also provided in order to allow the wage gaps between temporary and permanent jobs to differ along the earning distribution. Quantile earnings regressions consider specific parts of the conditional distribution of the hourly earnings and indicate the influence of the different explanatory variables on conditional earnings respectively at the bottom, at the median and at the top of the distribution.

Using the aforementioned notation, the general quantile regression model can be written as:

$$q_{\varrho}(y) = Z\alpha(\varrho) + X\beta(\varrho) + \varepsilon, \forall \varrho \in [0,1]$$

Where $q_{\varrho}(y)$ is the ϱ^{th} conditional logarithm of hourly wage quantile. The set of coefficients $\beta(\varrho)$ provides the estimated rates of return to the different covariates at the ϱ^{th} quantile of the log wage distribution and the coefficient $\alpha(\varrho)$ measures the parts of the wage differentials that are due to job-form differences at the various quantiles. In a quantile regression, the distribution of the error term is left unspecified. The quantile regression method provides robust estimates, particularly for miss-specification errors related to non-normality and heteroscedasticity. Another important advantage of quantile regression applied in wage gap analysis concerns the identification of distributional effects, allowing testing two opposite hypotheses, namely, “sticky floors” and “glass ceiling”. A “sticky floors” effect is at work when the wage gap between temporary and permanent workers widens at the lower tiers of distribution, while “glass ceiling” describes the tendency of temporary workers falling more behind their permanent counterparts at the upper tiers of the wage distribution.

The estimation results are presented in Figure 21a and Appendix, Tables A3 (for Indonesia), 21b and A4 (for Pakistan), 21c and A5 for (the Philippines), 21d and A6 (for Vietnam), and 21e and A7a (for Cambodia). The left hand-side panel of each table report the OLS and quantile regression estimations for the first case where wage workers are distinguished by two groups (temporary and permanent). The right hand-side panel includes estimated equations in which non-standard employment is broken down into subgroups (full-time fixed term, full-time casual, permanent part-timer, and temporary part-timer). The quantile regressions are estimated at 0.10, 0.25, 0.50, 0.75, and 0.90 quantiles. In all of these cases, the standard (full-time and permanent) employment group is taken as reference. Figure 21 provides graphical summaries of temporary wage gaps compared with permanent jobs at mean and different quantiles.

⁷ By convention, the potential number of years of labour market experience is estimated by individual's age minus his number of years of schooling minus 6.

⁸ In the case of Indonesia data in 2012, for instance, the question on the highest level of education attained accompanied with an answer “in completed primary school” that is not clear enough to compute the number of years attended to school.

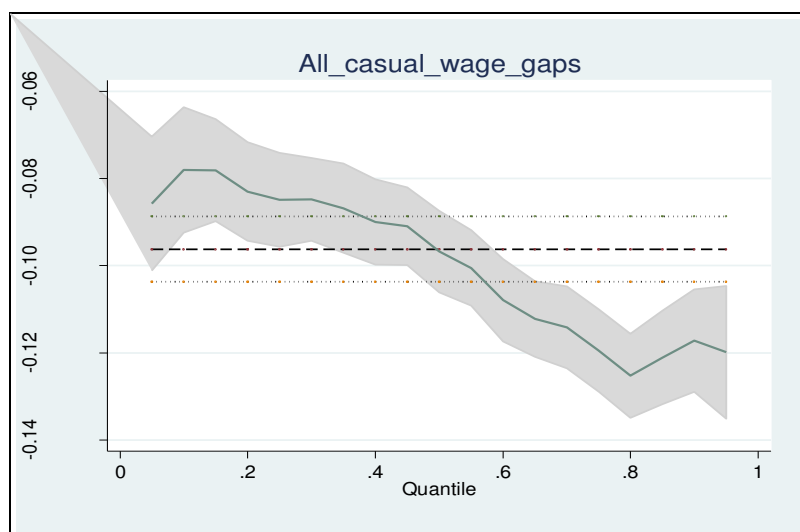
Considering firstly the estimated wage equations, the results show a generally strong significance of core and most of additional variables which are in line with expectation in any country cases. Estimated coefficients for age and age squared variables suggest a non-linear relationship. Female employees earn generally less than male, controlling for other factors. Head of household and married employees tend to have higher wage jobs. This, as expected, reflects the bread-earner effects. The estimated coefficients associated with the dummies for educational levels reveal the expected effects, indicating wage premium for higher levels of education. Moving beyond the core variables, some estimated results should be noted for the case Vietnam's and Cambodia's wage equations where some important additional variables such as institutional sector of employment, size of enterprise have been included. Workers in public sector and in enterprises of greater size tend to have higher wages.

Focusing now on wage gaps between temporary and permanent full-time workers, the graphical presentation in Figure 21 reveals some different results compared with those obtained in previous descriptive analyses of raw wage gaps. For each country, our graphical presentation of wage gaps includes a first graph showing overall gaps between all temporary and permanent full-time workers then a set of graphs providing detailed comparison between each type of temporary workers (e.g., temporary full-timers, temporary part-timers) and those who have standard employment. At the aggregate level, after controlling for different individual and job characteristics, the results confirm a general wage penalty of temporary workers in all countries except Cambodia, where temporary workers appear to be more financially advantaged compared to their permanent counterparts (positive wage gap of 0.047 log points shown in figure 21-e1 and Table 18). Concretely, the temporary-permanent wage gap obtained from the average level wage equations range between minus two per cent (-0.02 log points) in the Philippines and -22.89 per cent (-0.26 log points) in Vietnam. Temporary workers in Pakistan have also severe penalty since they earn on average more than 16.97 per cent lower wage than observationally similar workers holding permanent job. Compared with the raw wage gaps (reported in the previous section), the adjusted gaps have been sharply reduced. This result is in accordance with the literature (mentioned in section 2), and reflects that the difference in individual characteristics and job related features have an important contribution in explaining differences in average wage. Furthermore, it turns out that these adjusted temporary wage gaps in Asia are not much different in comparison with the gaps found for European countries (see OECD, 2014; ILO, 2015).

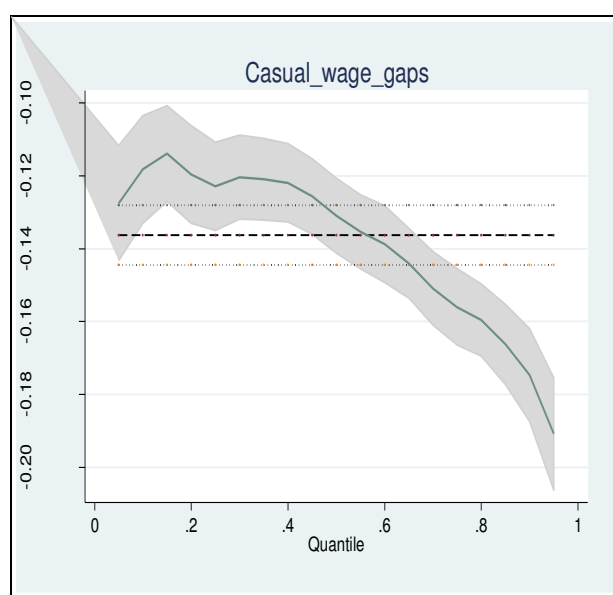
Turning to the quantile regression estimations, except in the very particular case of Cambodia, the overall wage gaps indicate also that temporary workers are suffering penalties at all levels of the conditional distribution (since the gap is always negative). The temporary wage gaps in Pakistan are not significantly different from 0 at the lower tiers (the 10th and 25th wage percentiles), but increase up to around more than -31.13 per cent at the upper tier of the distribution (90th percentile). These results also confirm the hypothesis of “glass ceiling”, preventing temporary workers in Pakistan from approaching high wages, particularly at the top of the wage distribution. The same effect is also revealed for Indonesia but at a lesser extent (with the increasing gaps from -7.5 per cent at the 10th percentile to over -11 per cent at the upper quantiles). The lowest variation of wage penalties among conditional quartiles is found for the case of the Philippines in which the gap varies between minus two per cent and minus four per cent, closely around the mean level. Additionally, no distributional effects of the penalty associated with temporary employment status can be found along the pay ladder in this country case. This indicates, in other words, that temporary workers in the Philippines suffer financially similar levels of penalty at any positions in the wage distribution. The results from Vietnam data appear to be in favour of the “sticky floors” hypothesis for temporary workers since the gap is wider at the bottom of the distribution. This suggests that the penalty of being in temporary jobs could be more severe for disadvantaged workers in Vietnam who are in the lower tier of the distribution.

Figures 21. Hourly wage gap at mean and different quantiles

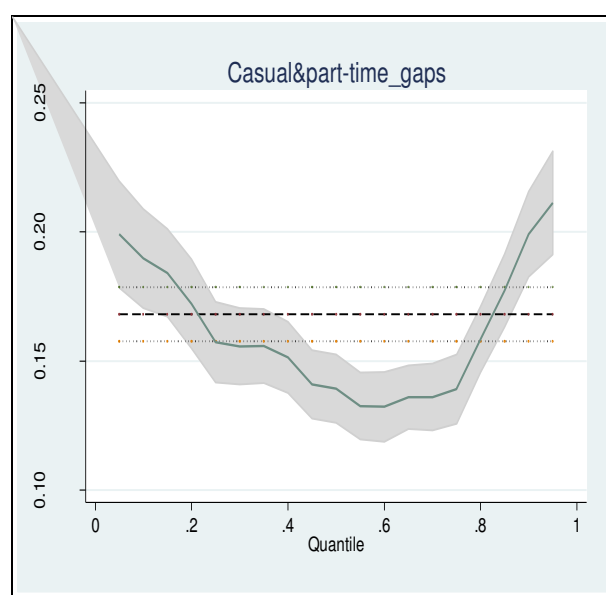
a. Indonesia



(a1)

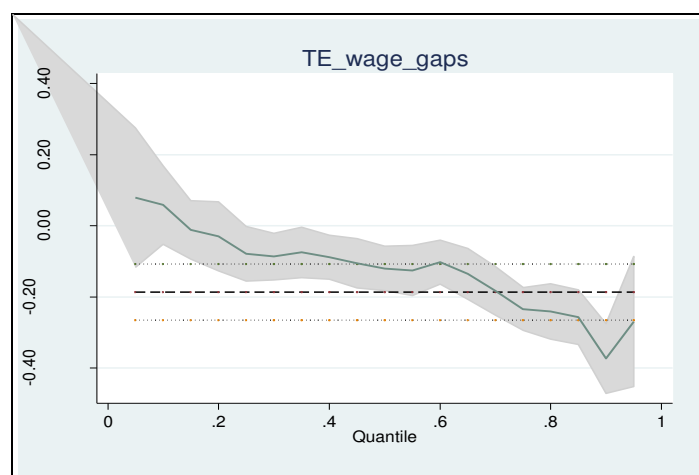


(a2)

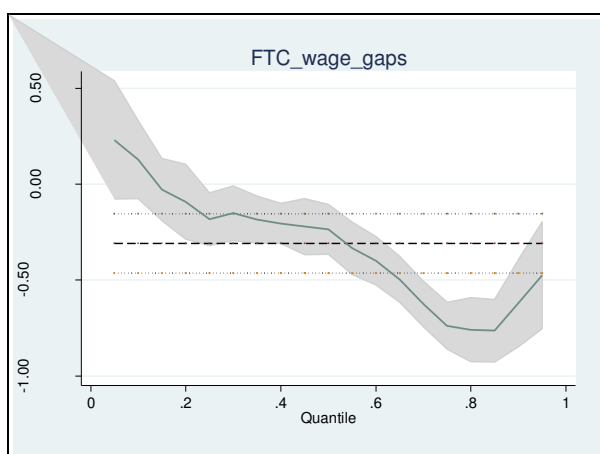


(a3)

b. Pakistan



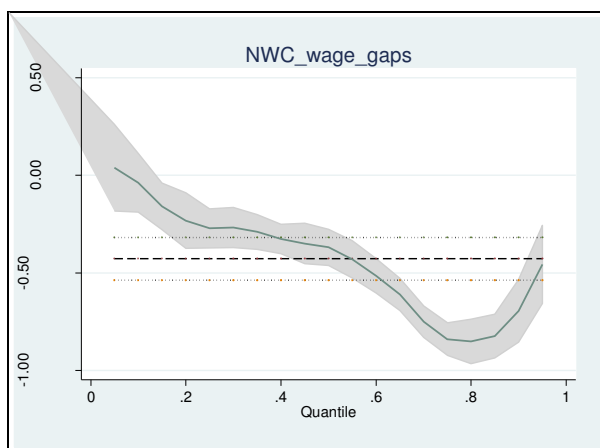
(b1)



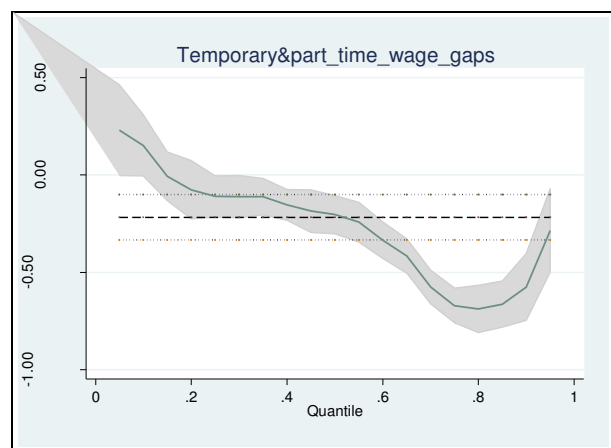
(b2)



(b3)

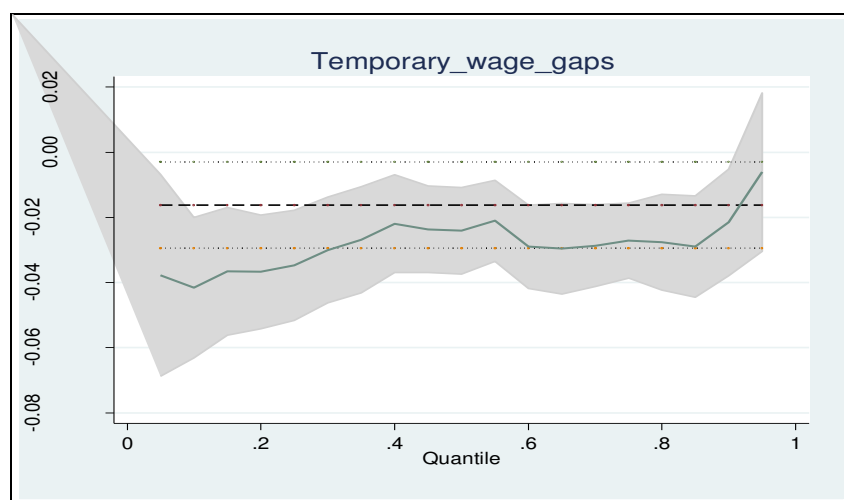


(b4)

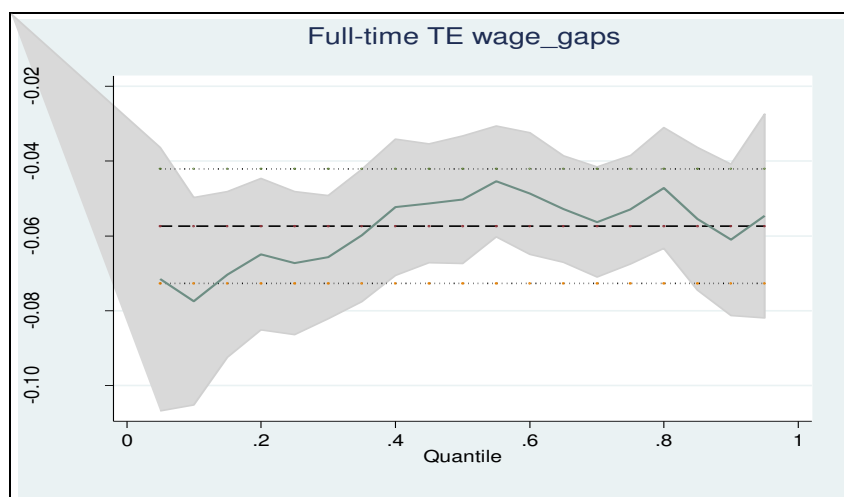


(b5)

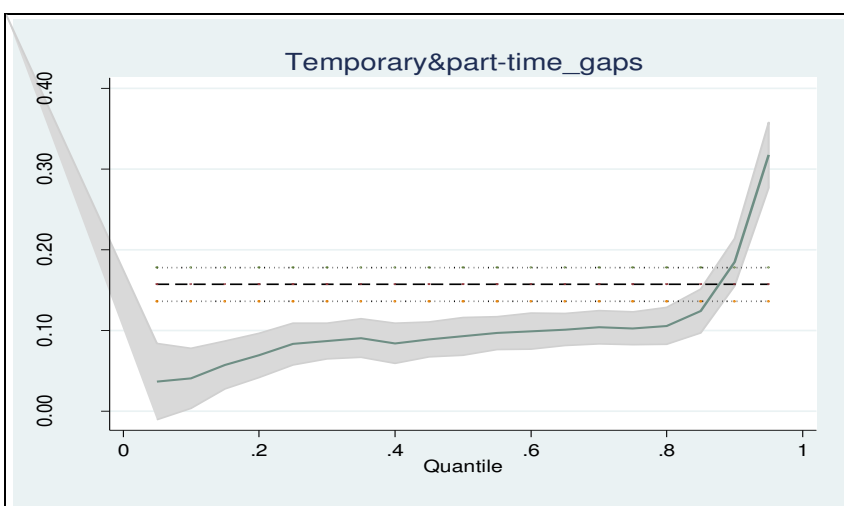
c. The Philippines



(c1)

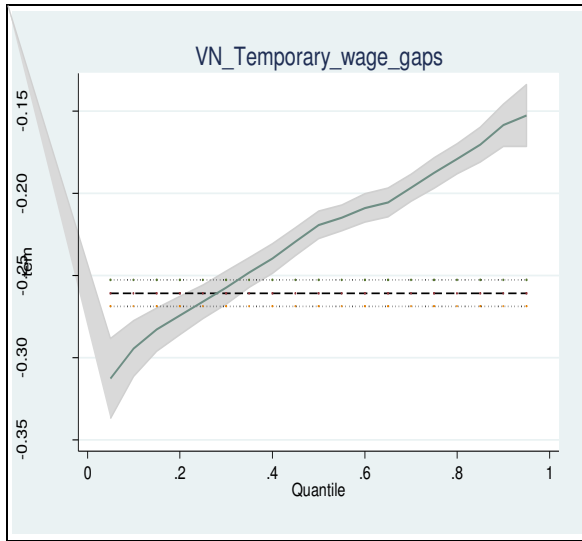


(c2)

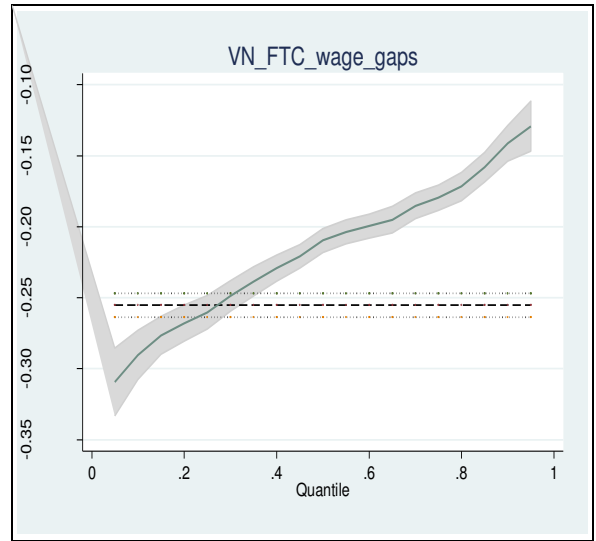


(c3)

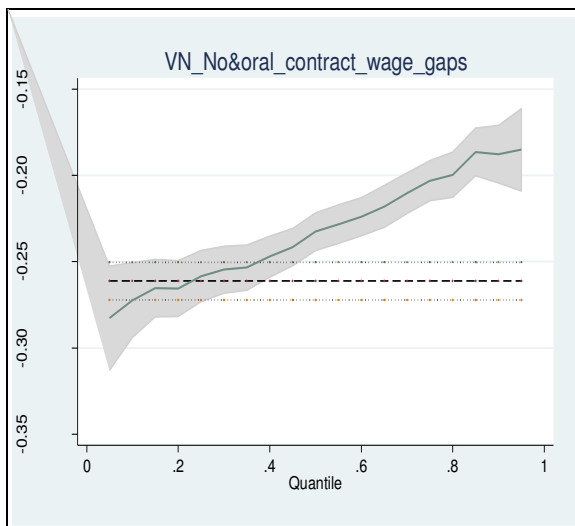
d. Vietnam



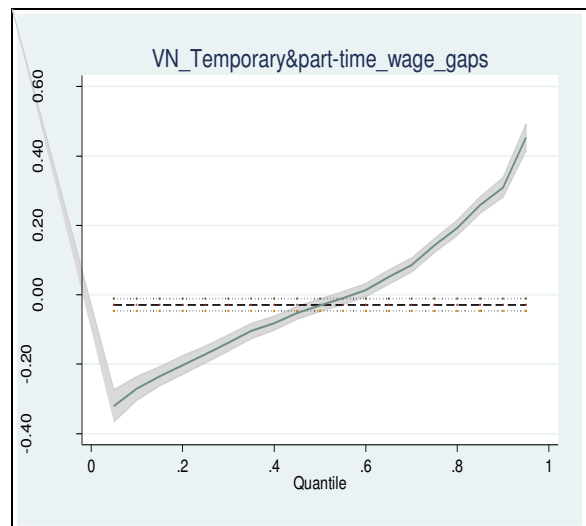
(d1)



(d2)

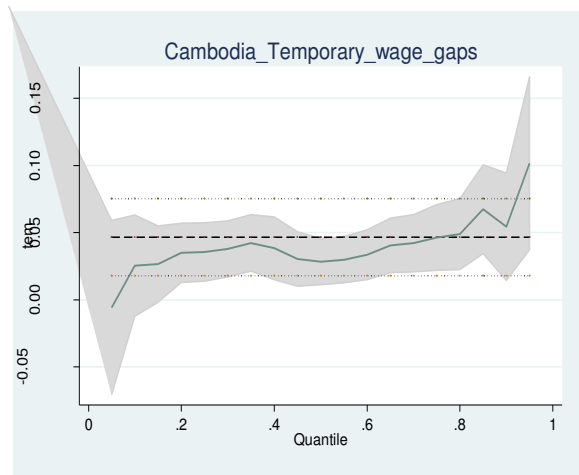


(d3)

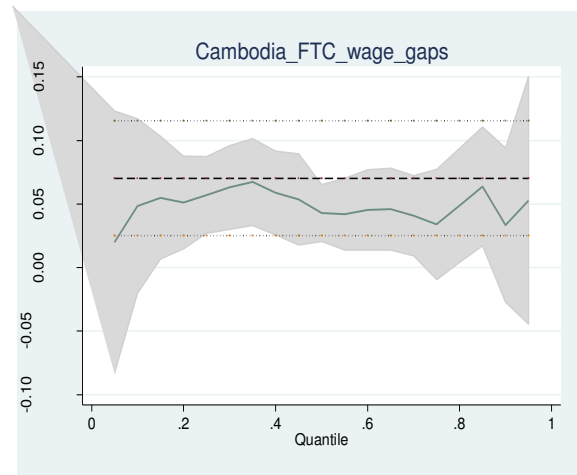


(d4)

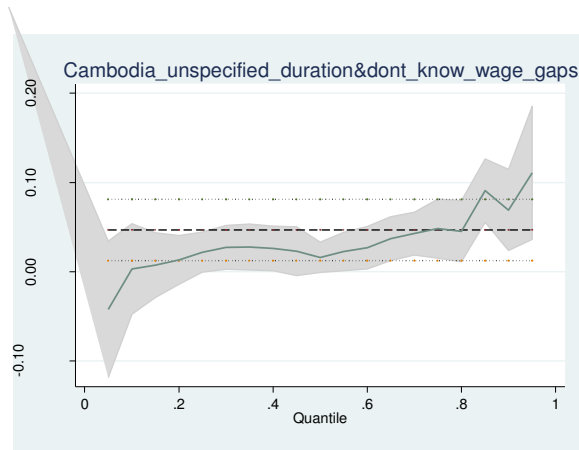
e. Cambodia



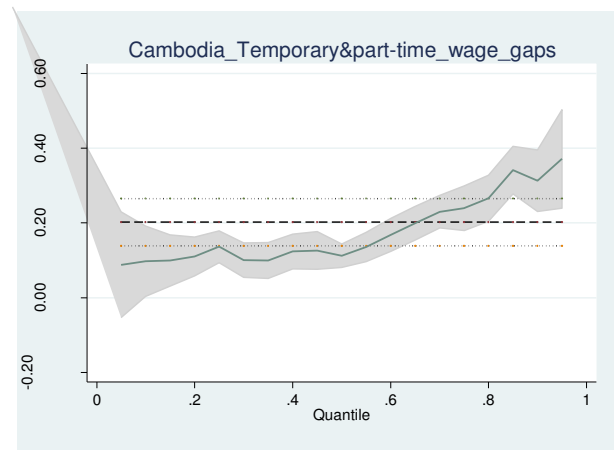
(e1)



(e2)



(e3)



(e4)

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009; Indonesia: LFS 2007; The Philippines LFS 2008. Authors' calculation.

Notable and interesting results are revealed when detailed comparisons are made between each subgroup of temporary workers and permanent full-timers. In these estimations, temporary workers are further classified by full- or part- time job feature as well as by forms of temporary jobs (fixed-term, casual, etc.). The wage gaps obtained for full-time casual workers in Indonesia and Pakistan show that this group is suffering the heaviest penalty among all temporary workers. “Glass ceiling” effect is also at work, but with a much higher variation of wage gaps along the wage distribution. At the top of the wage distribution, casual workers in Pakistan earn 53.88 per cent less than full-time permanent workers and this figure is 16 per cent in the case of Indonesia. Also in Pakistan, the temporary workers having no or unspecified labour contract are as severely penalized as casual workers. The wage gap compared with full-time permanent workers in this group at average level is -0.428 log points (34.81 per cent lower wage than permanent full-timers). FTC workers appear to have been differently treated as regards remuneration relative to workers holding standard employment in these Asian countries. In Cambodia, workers entering full-time FTC benefit from a general wage premium between 3.46 per cent and 7.25 per cent as compared to standard workers with no distributional effect over different percentiles, whereas those having jobs of the same form in Vietnam and Pakistan are bearing considerable pay disadvantage. Additionally, full-time

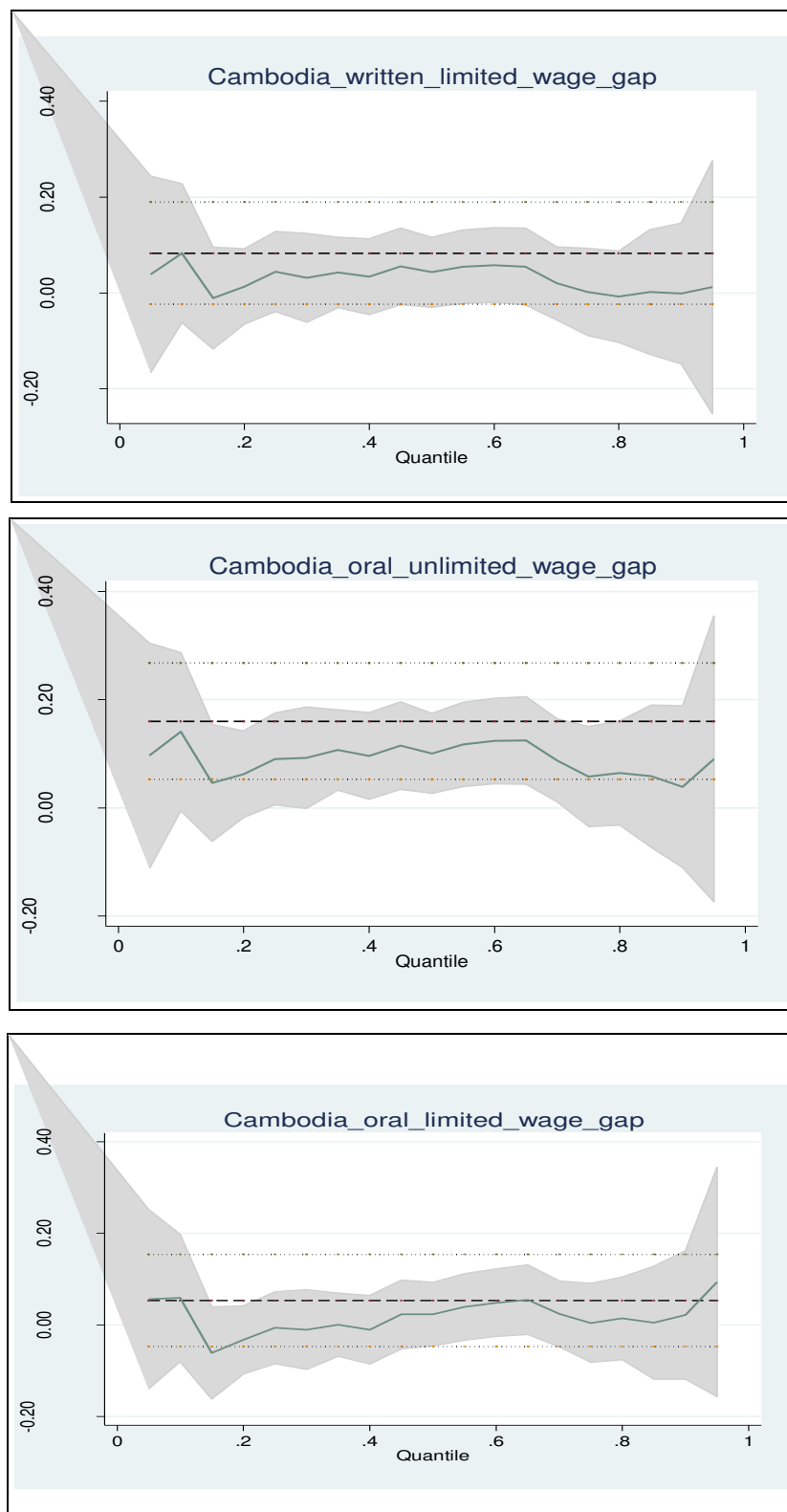
FTC wage differentials in these countries follow the same distributional patterns observed when analysing the overall temporary wage gaps. Besides the case of FTC workers in Cambodia, results for Indonesia show also notably surprising hourly wage premium of casual part-timers over permanent full-timers. Although the results appear to show no distributional effect, all the related wage gaps are significantly positive.

Again, the wage premium of some forms of temporary workers over their permanent counterparts in Cambodia and Indonesia is revealed as a “puzzle”, contradicting common belief and developed country evidence. In order to find a better reasoning for this, both kinds of employment (temporary and permanent) are needed to be further investigated. Whilst in developed countries the majority of wage workers have written contracts, a no less important proportion of employees are working with verbal agreement in these selected Asian countries. Thus, using solely “duration” criterion would not be pertinent enough for defining accurately temporary employment. In doing so there could be cases in which workers having an oral contract with unlimited duration are classified as having permanent job, while these jobs would be no less precarious and financially disadvantaged than other ones classified as temporary. Likewise, some FTC jobs are well based on a written contract, for that they might offer no less stability and benefits than standard employment. In fact, almost all of FTC workers in Cambodia are employed under a written contract (90.48 per cent), whereas up to 82.78 per cent of unlimited/unspecified/unknown duration jobs are only based on oral/ambiguous agreement.⁹ As Cambodia’s data provide detailed information on both types of contractual relationship (written/verbal contracts) and engagement duration, FTC workers are disaggregated into “limited duration written contracts” and “limited duration oral contracts”.¹⁰ Similarly, non-FTC workers can be divided into “unlimited/unspecified/unknown duration written contracts” and “unlimited/unspecified duration oral agreement”. This data treatment cannot be applied for Indonesia since there was only one-for-all question on employment form without any precision on contract type and duration in the questionnaire. Applying the above regression analyses and taking the group of “unlimited/unspecified/unknown duration written contracts” as reference, the refined temporary wage gaps for Cambodia are presented in Figure 21f and Table A7b.

⁹ Moreover, the proportion of formal jobs among FTC workers (34.69 per cent) is much greater than the proportion of formal jobs among all wage workers (13.63 per cent).

¹⁰ This disaggregation cannot be applied for other countries due to a lack of information. See Data Appendix for more detailed.

**Figure 22. Hourly temporary wage gap in Cambodia
(with re-defined employment categories)**



Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012.

The obtained results show that the wage gaps between different groups of FTC workers and permanent workers (“unlimited/unspecified duration written contracts”) remain positive. However, compared to the gaps the previous results, the refined wage gaps for Cambodia in the average and upper quintiles have already revealed, to some extent, our expectation. Concretely, there is at least no wage premium of ‘pure’ FTC workers relative to their permanent counterparts. Thus, the more detailed disaggregation of all wage workers into different groups by using type of contract/agreement, additionally to ‘duration of engagement’, is an appropriate consideration for Cambodian data. However, it is surprising that among workers holding unlimited duration jobs, those having an oral agreement do significantly benefit from wage premium compared with written contracted, notably at lower quintiles. At this point, a further investigation of labour legislation framework in Cambodia could potentially provide some more comprehensive reasoning.

In Cambodia, workers under a limited duration contract enjoy fewer rights and benefits than their unlimited-term counterparts – including paid annual leave, seniority rights and maternity leave (ITUC, 2014). It is also much easier to fire FTC workers than permanent ones (ibid). However, in order to compensate for these disadvantages, FTCs might offer a more competitive wage rate; moreover, anecdotal evidence suggests that workers in Cambodia receive a 5 per cent payment at the end of the contract, rendering such contracts attractive to workers, and hence possibly leading to positive self-selection of workers into these types of contracts. This self-selection and compensatory mechanisms are likely to explain the wage premium attributed to limited-term written contract workers in this country, as well as other results showing these kinds of jobs are associated with better working conditions and with better workers characteristics.

The disaggregation measure of wage gaps for part-time group shows particular results indicating that part-time contract could have, to some extent, advantages in terms of hourly pay. In the case of Indonesia, for instance, when considering all temporary (casual) workers (including both full- and part- timers), the estimated wage gaps are significantly negative in any position of the wage distribution, while it turns out that those temporary workers holding part-time arrangement are benefiting from an hourly wage premium compared with their permanent full-time counterparts.

Finally, regression-based decomposition framework developed by Oaxaca-Blinder (1973) is used to analyse the gaps in the average wage. In this method, wage differential between two selected groups can be decomposed into two components. One is explained by the differences in observable characteristics “skill levels of individuals” between two groups taken into comparison (i.e., temporary vs. permanent workers). This component is also called endowment effect. The other reflects the differences in the price effect, namely, skill-prices that individuals face in the labour market (discrimination). Two steps are undertaken in estimating Oaxaca-Blinder model. After estimating the earnings equations for each group by OLS, we can build Oaxaca-Blinder model as follows:

$$y^P - y^T = (X^P - X^T)\beta^P + X^T(\beta^P - \beta^T)$$

The wage decomposition results are reported in Tables 7. The first and the second rows present respectively the difference of the mean predictions between log wages of permanent and temporary workers and the associated standard error. The next two rows provide the explained component of the above difference. This component indicates by how much the mean wage would increase if workers in temporary employment had the same characteristics as their permanent counterparts. This component can be further decomposed to reveal the contribution of each individual characteristic to the gap.

Table 7. Decomposition of predicted wage differentials

	Cambodia	Indonesia	Pakistan	Philippines	Vietnam
Difference	-0.054*** (0.015)	0.590*** (0.002)	0.488*** (0.068)	0.357*** (0.008)	0.573*** (0.003)
Explained	-0.007 (0.007)	0.472*** (0.002)		0.341*** (0.006)	0.314*** (0.004)
Age	-0.003 (0.002)	-0.018*** (0.001)	0.028*** (0.006)	0.040*** (0.002)	0.247*** (0.007)
Experience	- (0.002)	- (0.001)		- (0.002)	0.005* (0.003)
Sex	-0.002 (0.002)	-0.008*** (0.001)	0.034*** (0.007)	-0.017*** (0.002)	-0.019*** (0.001)
Minor ethnic					0.000 (0.000)
Marital status	-0.000 (0.001)	-0.002*** (0.000)	0.007** (0.003)	0.002** (0.001)	0.005*** (0.001)
Head of household	-0.006*** (0.002)	0.166*** (0.001)	-0.000 (0.003)	0.081*** (0.003)	0.002*** (0.000)
Education	-0.000 (0.000)	-0.001*** (0.000)	0.071*** (0.018)	0.014*** (0.001)	0.075*** (0.005)
Migration	-0.002** (0.001)		0.001 (0.001)		
Industry	0.000 (0.001)	-0.009*** (0.000)	-0.020** (0.009)	-0.052*** (0.003)	0.002 (0.002)
Informal sector			0.010*** (0.004)		-0.035*** (0.003)
Occupational groups	-0.010*** (0.003)	0.263*** (0.001)	0.107*** (0.025)	0.201*** (0.004)	- (0.000)
Public sector	0.006*** (0.002)	- (0.000)	0.074*** (0.017)	0.033*** (0.002)	-0.036*** (0.003)
Size of enterprise	-0.005*** (0.002)	- (0.000)		- (0.000)	0.040*** (0.002)
Union member	0.000 (0.000)				
Rural	0.000 (0.001)	-0.005*** (0.000)	0.001 (0.001)	0.009*** (0.001)	0.010*** (0.001)
Region	0.015*** (0.006)	0.086*** (0.001)	-0.012*** (0.004)	0.031*** (0.002)	-0.015*** (0.001)
Unexplained	-0.047*** (0.015)	0.119*** (0.001)		0.016** (0.007)	0.260*** (0.005)
Constant	-0.737*** (0.207)	0.505 (0.000)	1.704** (0.765)	0.010 (0.454)	-0.440*** (0.083)
Observations	9,050	154,256	9,065	33,392	117,915

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Source: Vietnam: LFS 2007; Cambodia: Labour Force and Child Labour Survey 2012; Pakistan: LFS 2008-2009. Authors' calculation.

The decomposition results show that the predicted differences in average wage between permanent and temporary workers are positive and statistically significant in all countries but Cambodia. Generally, a large share of the predicted wage difference between permanent and temporary workers is explained by the individual characteristics (endowment effect). However, a substantial fraction of the gap remained unexplained, particularly in the cases of Vietnam and Pakistan, indicating significant discrimination against temporary employment.

6.2. Econometric analyses of other temporary employment penalties

As aforementioned the potential penalties of engaging in temporary instead of permanent employment can be considered in terms of other criteria such as social security coverage, trade union membership, sponsored training benefits, etc. To assess these penalties, probit regressions are applied. The dependent variable used in these models takes the form of an indicator variable that is set to ‘1’ if the worker received the related benefit and to ‘0’ otherwise. Depending on the data availability (shown in the previous section), three types of model are applied in this section to estimate the effect of working in a temporary job on the probability of benefiting from social security, from sponsored training or suffering from occupational health risk. In the first step, these binary dependent variables are modelled as a function of temporary job statuses and workers’ personal characteristics. In the next step, job characteristics are added to the explanatory variables, including hours of work. Unfortunately, the variation in job tenure cannot be captured since this information is not available. Finally, geographical variables are additionally controlled for.

6.2.1. Penalties associated with social security coverage

Table 8 presents econometric results related to social security coverage penalties of temporary forms of employment. The reference category is permanent jobs for models 1, 2, 3 and standard jobs (i.e., permanent full-time) for three remaining models.¹¹ Overall, the fact of being employed in temporary work does negatively affect social security coverage of employees in Vietnam and Indonesia, meanwhile, might slightly increase the chance of being covered by social security of Cambodian workers (recall that in Cambodia, it implies contribution to pension fund only).

In Vietnam and Indonesia, temporary (or casual) employment status curtails individuals’ possibility of receiving social security coverage by over 34 percentage points in all specifications, and the effect magnitudes, in almost all the cases, diminish when additional variables are controlled for. By contrast, holding a temporary job could minimally increase Cambodian workers’ social security coverage in the first model specification (by 1.4 per cent point). While job-related and geographical characteristics are captured, the marginal effect is no longer significant.

These diverse results motivate more detailed studies on various categories of temporary employment, namely temporary full-time (consisting of FTC full-time and other temporary full-time for the cases of Vietnam and Cambodia) and temporary part-time jobs. As expected, different signs emerge for Cambodia. Whereas FTC full-time workers, on average, are more likely to be covered by social insurance than standard workers by from 2.6 to 10.5 percentage points depending on model specifications; other types of temporary full-time employment do suffer from penalties in terms of social security coverage.

In Vietnam and Indonesia, the coefficients of all sub-categories remain negative. In Indonesia, the penalties are the greatest for casual part-timers. This is reasonable as this group

¹¹ The results for permanent part-time employment are skipped under the framework of this report.

is different the most from standard employment. In Vietnam, other temporary full-timers are the most penalised: the fact of working as a non-FTC temporary full-time worker could reduce one's probability of receiving social insurance by up to 61.8 percentage points in comparison with standard employees.

Table 8. Social security coverage penalty of temporary employment in Vietnam, Cambodia and Indonesia

	[1]	[2]	[3]	[4]	[5]	[6]
Vietnam						
Temporary employment	-0.571*** (0.003)	-0.452*** (0.004)	-0.454*** (0.004)			
FTC full-time emp.				-0.411*** (0.005)	-0.361*** (0.005)	-0.362*** (0.005)
Other temporary full-time emp.				-0.823*** (0.002)	-0.711*** (0.004)	-0.712*** (0.004)
Temporary part-time emp.				-0.618*** (0.003)	-0.612*** (0.003)	-0.611*** (0.003)
Observations	117,905	117,651	117,651	118,495	118,232	118,232
Cambodia						
Temporary employment	0.014*** (0.004)	0.001 (0.003)	0.004 (0.003)			
FTC full-time emp.				0.105*** (0.011)	0.029*** (0.007)	0.026*** (0.007)
Other temporary full-time emp.				-0.029*** (0.005)	-0.014*** (0.003)	-0.010*** (0.003)
Temporary part-time emp.				0.044*** (0.012)	-0.015*** (0.003)	-0.013*** (0.003)
Observations	9,061	9,061	9,061	9,061	9,061	9,061
Indonesia						
Casual employment	-0.413*** (0.006)	-0.347*** (0.006)	-0.343*** (0.006)			
Casual full-time emp.				-0.409*** (0.007)	-0.348*** (0.007)	-0.343*** (0.007)
Casual part-time emp.				-0.456*** (0.011)	-0.412*** (0.011)	-0.408*** (0.011)
Observations	165,701	165,701	165,701	165,701	165,701	165,701
Individual char.	Yes	Yes	Yes	Yes	Yes	Yes
Job char.		Yes	Yes		Yes	Yes
Geographical char.			Yes			Yes

Note: Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Source: Author's calculations. Cambodia: Labour Force and Child Labour Survey 2012, Indonesia LFS 2007, Vietnam LFS 2007.

6.2.2. Penalties associated with other corporate fringe benefits

Table 9 summarizes paid leave¹² penalties in association with temporary employment. The reference category is permanent jobs for models 1, 2, 3 and standard jobs (i.e., permanent full-time) for three remaining models.¹³ Similar to section 5.2.1, temporary work status does harm to workers' paid leave benefits in Vietnam and Pakistan, while slightly improves those of Cambodian employees.

These contradicting results suggest detailed regressions on various categories of temporary employment, namely temporary full-time (including FTC full-time, casual full-time and other temporary full-time employment, depending on data availability for each country) and temporary part-time jobs. Unsurprisingly, different signs emerge for Cambodia. On average, FTC full-time workers are more likely to receive paid leave than standard workers by 12.0 percentage points in the full specification. In contrast, other types of temporary full-time employment suffer from modest penalties in terms of paid leave.

In Vietnam and Pakistan, meanwhile, the marginal effects of all sub-categories remain negative despite differences in magnitudes. In Vietnam, non-FTC temporary full-time employment suffers the most at 65.4 percentage points. In Pakistan, the penalty seems the most destructive for casual full-time employment.

¹² Paid leave implies annual paid holiday and sick leave.

¹³ The results for permanent part-time employment are skipped under the framework of this report.

Table 9. Paid leave penalty of temporary employment in Vietnam, Cambodia and Pakistan

	[1]	[2]	[3]	[4]	[5]	[6]
Vietnam						
Temporary employment	-0.514*** (0.003)	-0.367*** (0.004)	-0.374*** (0.004)			
FTC full-time emp.				-0.347*** (0.005)	-0.278*** (0.006)	-0.285*** (0.006)
Other temporary full-time emp.				-0.802*** (0.003)	-0.648*** (0.005)	-0.654*** (0.005)
Temporary part-time emp.				-0.656*** (0.003)	-0.648*** (0.004)	-0.649*** (0.004)
Observations	117,905	117,651	117,651	118,495	118,232	118,232
Cambodia						
Temporary employment	0.059*** (0.007)	0.037*** (0.006)	0.030*** (0.005)			
FTC full-time emp.				0.257*** (0.015)	0.141*** (0.013)	0.120*** (0.013)
Other temporary full-time emp.				-0.029*** (0.008)	-0.010 (0.007)	-0.012** (0.006)
Temporary part-time emp.				-0.022* (0.013)	-0.019 (0.013)	-0.012 (0.012)
Observations	9,061	9,061	9,061	9,061	9,061	9,061
Pakistan						
Temporary employment	-0.615*** (0.006)	-0.418*** (0.010)	-0.429*** (0.010)			
FTC full-time emp.				-0.343*** (0.015)	-0.204*** (0.021)	-0.215*** (0.021)
Casual full-time emp.				-0.703*** (0.006)	-0.554*** (0.010)	-0.574*** (0.010)
Other temporary full-time emp.				-0.621*** (0.008)	-0.438*** (0.012)	-0.445*** (0.012)
Temporary part-time emp.				-0.537*** (0.006)	-0.465*** (0.010)	-0.463*** (0.010)
Observations	25,999	25,998	25,998	25,999	25,998	25,998
Individual char.	Yes	Yes	Yes	Yes	Yes	Yes
Job char.		Yes	Yes		Yes	Yes
Geographical char.			Yes			Yes

Note: Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Source: Cambodia LFS 2012, Pakistan LFS 2008-2009, Vietnam LFS 2007. Author's calculations.

6.2.3. Funded training gaps and occupational health risk penalties: the Pakistan case

As shown in the previous descriptive analysis, detailed modules concerning training and occupational health risk available in the Pakistani 2008 - 2009 LFS enable an assessment of temporary employment training gap and health risk penalty. Considering training gap, the data are regrouped to generate a binary variable, distinguishing employees who benefited from training and those who did not. This variable is introduced as the dependent variable in our probit models. Similar to other analyses of temporary employment penalty, various independent variables are included to control for individual and job characteristics as well as geographical variations.

Table 10 reports the main estimated results. In general, it turns out that in Pakistan, engaging in temporary employment status could slightly hamper workers' opportunity of receiving some kind of training when geographical and/or job's characteristics are taken into account (column 2 and 3). By contrast, the training gap turns positive (column 1) if these characteristics are ignored in the regression. This probably shows that industries, occupations and institutional sectors are important factors in providing training opportunities to workers.

Interestingly, when the dummies for sub-categories of temporary workers are included (columns 4, 5 and 6), the estimated results indicate that not all forms of temporary jobs are penalized the same in terms of training opportunity. In the full specification, FTC workers seem to receive a similar level of sponsored training as standard ones while casual full-timers are punished the most. This fact should be of much concern since the lack of access to training could result in long lasting unexpected effects to casual worker's future employment outcomes.

Table 10. Estimates of the gap in sponsored training for Pakistan

	[1]	[2]	[3]	[4]	[5]	[6]
Temporary worker	0.033*** (0.005)	-0.026*** (0.006)	-0.020*** (0.005)			
Groups of temporary workers (Reference: Permanent full-time workers)						
Full-time FTC workers				0.030** (0.013)	-0.014* (0.008)	-0.051 (0.068)
Full-time casual workers				-0.007 (0.006)	-0.049*** (0.005)	-0.349*** (0.049)
Full-time NWC workers				0.057*** (0.006)	-0.020*** (0.006)	-0.128*** (0.043)
Temporary part-time workers				0.039*** (0.012)	-0.015* (0.008)	-0.149** (0.067)
Individual characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Job characteristics		Yes	Yes		Yes	Yes
Geographic char.			Yes			Yes
Observations	25,999	25,998	25,998	25,999	25,998	25,998

Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

Source: LFS Pakistan 2008-2009. Authors' calculation.

Turning now to an analysis of occupational health risk, the Pakistan's 2008-2009 LFS includes a set of question enabling to identify workers who suffered an occupational injury or disease over twelve months before the survey. Relying on this question, a binary variable is generated taking '1' if the worker suffered at least once from occupational injury or disease, and '0' otherwise. This variable is used in probit regressions as dependent variable. The estimation results are provided in Table 11. Overall, temporary workers are a little more likely to be occupationally injured than their permanent counterparts. In the second and third specifications, temporary employment status is expected to raise occupational health risk by 1.1 percentage points, *ceteris paribus*, which is much smaller than the level estimated from the first model (2.1). This shows that job characteristics such as industry, occupation are important determinants of occupational injuries and diseases; while geographical factors play an insignificant role.

Table 11. Estimates of the penalties associated with occupational injuries for Pakistan

Variables	[1]	[2]	[3]	[4]	[5]	[6]
Temporary worker	0.021*** (0.002)	0.011*** (0.003)	0.011*** (0.002)			
Groups of temporary workers						
Full-time FTC workers				0.013 (0.008)	0.007 (0.007)	0.006 (0.006)
Full-time casual workers				0.031*** (0.005)	0.011*** (0.004)	0.012*** (0.004)
Full-time no written contract workers				0.028*** (0.004)	0.015*** (0.004)	0.014*** (0.004)
Temporary part-time workers				0.089*** (0.014)	0.049*** (0.012)	0.046*** (0.012)
Individual characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Job characteristics		Yes	Yes		Yes	Yes
Geographical characteristics			Yes			Yes
Observations	25,999	25,998	25,998	25,999	25,998	25,998

Note: Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Source: Authors' calculation based on Pakistan LFS 2008-2009.

A decomposition of temporary employees portrays a finer picture of penalties in terms of injuries and diseases, with temporary part-time workers suffering the most. Full-time FTC workers, by contrast, do not suffer from the occupational injury penalty. These results suggest that special protection should be provided to temporary part-time labourers, who are the most vulnerable to occupational health risks.

7. Concluding remarks

This study investigates the impacts of temporary employment on working conditions in some selected Asian countries. Our review of literature has shown that though some Asian-country evidence on this form of employment exists, no systematic comparative research has been conducted focusing on this topic. There is, indeed, a scarcity of cross-nation statistical evidence on these employment forms in Asia. An explanation for the shortage of Asian cross-country statistics and studies on temporary employment could be that this employment form has been less of a concern as compared to informal employment, that there has been a lack of awareness of the phenomenon, or also because of lack of data to study this phenomenon properly. Available ‘pure’ figures on NSFTE have been found mostly for Asian OECD countries like the Republic of Korea, and Japan. Therefore, the current study provides first time ever empirical evidence, shedding light on this neglected research area for some selected Asian countries, including Vietnam, Cambodia, Indonesia, the Philippines and Pakistan.

Our statistical analysis relies on national Labour Force Survey data. The computation of figures on incidence of temporary employment is based on the adapted ILO definition and the availability of related information in the data of each country. As the definitions and related questions in LFS questionnaires differ from one country to another, the computed figures assure both the most detailed disaggregation of temporary employment into different forms and the possible cross-country comparability. In general, temporary work accounted for an important proportion of wage employment in these Asian countries, with great variation across nations. It spanned from 24 per cent in the Philippines to 67 per cent in Vietnam, which far exceeds OECD’s and Japan’s temporary employment rate at around 12 per cent and 14 per cent, respectively. Temporary employment emerged as a noteworthy important phenomenon in a number of Asian countries, as a large proportion of wage workers derived all or part of their earnings from it.

The investigation of the consequences of temporary status on working conditions has been carried out in both descriptive and econometric analysis of different types of financial and non-financial penalty/reward. Our analysis of temporary-permanent wage gaps indicates that temporary employees in these Asian countries do not always earn a lower amount per hour than those who have permanent jobs. The case of temporary workers in Cambodia is an example reflecting the temporary wage premium (most of temporary jobs are FTC and almost all of FTC workers in Cambodia are employed under a written contract (90.48 per cent), whereas up to 82.78 per cent of unlimited/unspecified/unknown duration jobs are based on oral/ambiguous agreement only). This particular case of temporary wage premium is attributed to both the individual characteristics of workers and job characteristics of fixed-term contracts in Cambodia. The best educated workers, including those having completed university education, as well as other high skilled labours such as managers and professionals engage the most in temporary work. Cambodia is the only country in which both public and private sector firms employed more temporary than regular wage workers, and the use of temporary employees was even more prevalent in the public sector.

In all other selected countries in the study, temporary workers suffer from wage penalties of at least two per cent on average. Vietnam is the country where temporary workers face the severest wage penalty. Temporary wage differentials depend highly on the arrangement form (fixed term or casual, full-time or part-time) and on the relative position in the wage distribution. In some cases hourly wage penalties of temporary jobs turn into a premiums when they concerns temporary part-timers. This effect is at work for certain groups, including high skilled workers or professionals like FTC workers in Cambodia. In most of these country cases, temporary wage gaps do substantially vary along wage distribution. Both “sticky floors” and “glass ceilings” are revealed. The temporary wage gap is the widest at the bottom of the wage distribution in Vietnam, suggesting that the penalty of being in temporary

jobs could be more severe for disadvantaged workers, whereas “glass ceiling” effect in Pakistan prevents temporary workers from approaching high wages, particularly at the top of the wage distribution. A further disaggregation, based on more detailed set of questions in the Cambodia’s data of wage employees by type of contract/agreement reveals less important and insignificant wage gaps between fixed term written contracts and permanent written contracts. Among workers engaging in unlimited duration jobs, disadvantaged groups with written contracts appear to be suffering more severely from the wage rate penalty as compared to those having verbal agreement, possibly reflecting tacit agreements on wages in those arrangements. Thus, to some extent, contradicting results remain.

Besides suffering from pay gaps, temporary wage workers are also penalised in other aspects. Three other types of analysis revealed temporary employment penalties in terms of social security coverage, training, and other corporate benefits like sick/paid leaves. Again, contrasting findings are found. In Vietnam and Indonesia, temporary (or casual) employment status curtails individuals’ possibility of receiving social security coverage, whereas holding a temporary job might slightly improve Cambodian workers’ social security coverage. Notably, FTC full-time workers, on average, are more likely to be covered by social insurance than standard workers, while other types of temporary full-time employment suffer from penalties in terms of social security coverage. Similar findings are obtained when considering other corporate benefits. Temporary workers in Cambodia, particularly FTC ones, benefit the most from paid/holiday leaves, whereas their homologues in Vietnam suffer a severe penalty regarding this type of benefit. This further illustrates the country-specific advantages of FTC jobs.

A possible explanation for the employment situation in Cambodia would come from a broad classification of wage jobs into ‘bad’ and ‘better’ ones. ‘Bad’ jobs are characterized by bad wages and poor working conditions, without written contracts and social security, usually found in agriculture and informal sector. ‘Better’ jobs are formal sector jobs with written contracts, better paid and more accessible by workers with higher education and skills. Applying solely the criterion of duration when defining temporary employment, as in the developed countries setting, would lead to misleading results when assessing temporary employment penalties. In the case of Cambodia (and Vietnam to a certain extent), an important number of ‘better’ jobs takes the form of fixed term written contracts with relatively high wage rate. They are considered as temporary by definition because of limited duration. In contrast, no less important number of ‘bad’ jobs, characterized by poorly paid but unlimited or unspecified oral agreement, are considered as permanent jobs simply because of the unlimited duration. Another explanation previously mentioned could be that, in Cambodia, though workers under a limited duration contract enjoy fewer rights than their unlimited-term counterparts, they are regularly compensated by a more competitive wage rate for these disadvantages. Moreover, anecdotal evidence suggests that workers in Cambodia receive a 5 per cent payment at the end of the contract, rendering such contracts attractive to workers, and hence possibly leading to positive self-selection of workers into these types of contracts. This self-selection and compensatory mechanisms are likely to explain the wage premium attributed to limited-term written contract workers in this country, as well as other results showing these kinds of jobs are associated with better working conditions and with better workers characteristics. By the same reasoning, risks and lack of benefits associated with verbal agreements could also be compensated by higher wage rate in other countries. Indeed, a relatively higher hourly wage rate of part-time workers (e.g., in Indonesia) compared with permanent full-timers could also represent a similar kind of compensation for the disadvantages of NSF.

The Pakistan’s 2008-2009 LFS provides some additional questions allowing an assessment of temporary employment training gap as well as penalty associated with occupational health risk. Our analysis of training gap shows that different sub-groups of temporary workers suffer from different levels of penalty. While FTC workers seem to

receive the same level of sponsored training as standard ones, casual full-timers are severely punished. Additionally, in accordance with the general viewpoint put forward in the literature, temporary employees, notably those engaging in part-time arrangement suffer the most from penalties in terms of injuries. Thus, special protection should be provided to temporary part-time labourers, who are the most vulnerable to occupational health risks.

Although our analysis reveals wage and other premiums attributed to certain forms of temporary employment (in Cambodia and Indonesia), the main results tend to be supportive of general penalties/disadvantages of workers when being temporarily employed in the selected Asian countries. This general inequality between permanent and temporary workers is a challenge to be addressed. Thus, reinforcement of the legal framework of labour contracts could be a central measure to improve employer-employee relationship and prevent the existence of loose contractual engagement which lead to poor labour conditions and poorly paid jobs. Even though permanent workers do not always benefit from wage premium, the relatively important temporary wage gaps and high incidence of temporary employment in most studied countries are relevant issues to be treated in employment policies.

Due to some limitation of data sources, the current study leaves some issues and questions to be further addressed. First, the different definitions and classification of forms of temporary employment applied in LFS across studied countries induce, to a certain extent, limitations concerning the comparability of some indicators and obtained results though efforts have been made to harmonize them. In terms of methodology recommendation, more detailed set of questions on both aspects of employment, including types of contract/agreement and engagement duration should be essentially included in the LFS questionnaires in developing countries like the selected ones in the current study. This is important to purify the wage gaps and other employment penalty measurement. Second, further investigation focusing on demand side should be conducted to provide more evidence explaining the nexus between wage gaps and the wide use of temporary employment. It is important to understand if the importantly negative temporary wage gap (or permanent workers' wage premium) explains the popular use of temporary labour as a way to restrain wage bill, or if flexible use of employment through short-term contracts, casual jobs and so on is simply the norm in these developing countries. Third, subjective evaluation of working conditions could be another important and interesting area of research.

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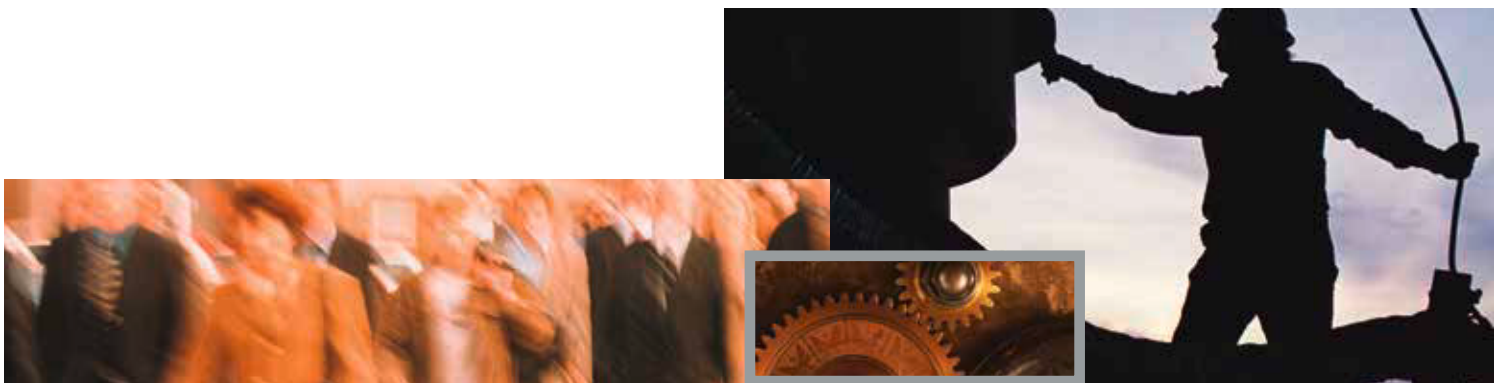
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