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The Impact of Legal Minimum Wages on Employment, Income, and Poverty Incidence in the Philippines

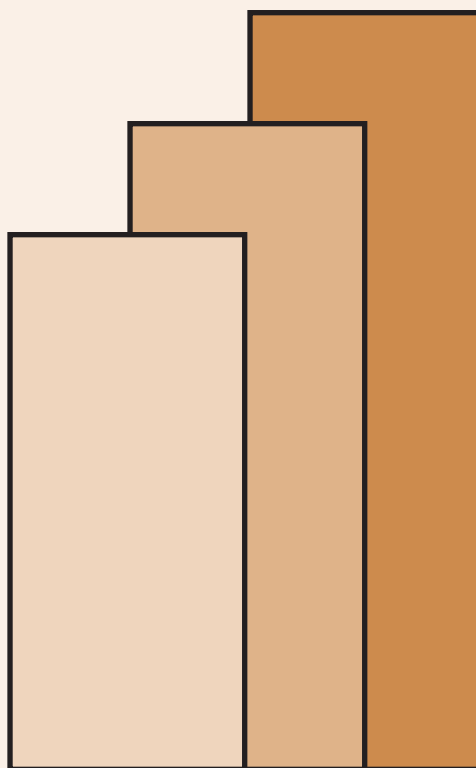
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The impact of legal minimum wages on employment, income and poverty incidence in the Philippines

By Vicente B. Paqueo, Aniceto Orbeta and Leonardo Lanzona

Abstract

It is commonly believed that mandating higher legal minimum wages (LMWs) is needed to help the poor earn a level of income that would allow them healthy and dignified lives. It is also seen as a tool to protect the weak against exploitation. This popular belief motivates and justifies the recurrent demands for hefty increases in LMW. But what is the empirical evidence behind this? This article seeks to address this question. It finds that in the Philippines, higher LMWs: (i) are likely to reduce the work hours of average workers; (ii) can be disadvantageous against the very groups that LMWs are intended to protect; (iii) decrease the employment probability of the young, inexperienced, less educated and women laborers; and (iv) tends to ironically reduce average income and raise household poverty rate. These results illustrate how rapid rises in LMWs can be counter-productive and can go against the spirit of equal protection principle of the Constitution. If the goal is to help the poor and protect the weak, then these findings warrant the need to think more deeply and prudently about the use of LMWs and to consider other tools for achieving decent wages.

Introduction

Poor households do not have much valuable physical assets to depend on. For their subsistence, they rely on the labor of their household members and their productivity in employment and other income-generating activities. Social assistance is often needed from the government, such as the Pantawid Pamilya Pilipino Program (4Ps) otherwise known as Conditional Cash Transfer (CCT) program discussed in Chapter 10 (Orbeta and Paqueo, 2016) of this volume. Other sources are cash or lending assistance from relatives, friends and other private entities.

To get themselves out of poverty, they need to increase their work hours and productivity, a key factor for higher wages. The problem, however, is that the Philippine labor population is not fully employed. This means that a certain percentage of the "working-age" Filipinos either belongs to the categories of open unemployment or underemployment. Open unemployment rate hovers at around 13.9 percent to 5.6 percent over 2002-2015¹. For workers who are underemployed they only work, on average, less than 40 hours a week². Further, their wage rate is low due to productivity issues. In the Philippine labor context (Figure 1), the average percentage of underemployed workers (Figure 1a) is at 19.7 percent³ for the past decade. Data shows that the lowest underemployment, at 18.5 percent,

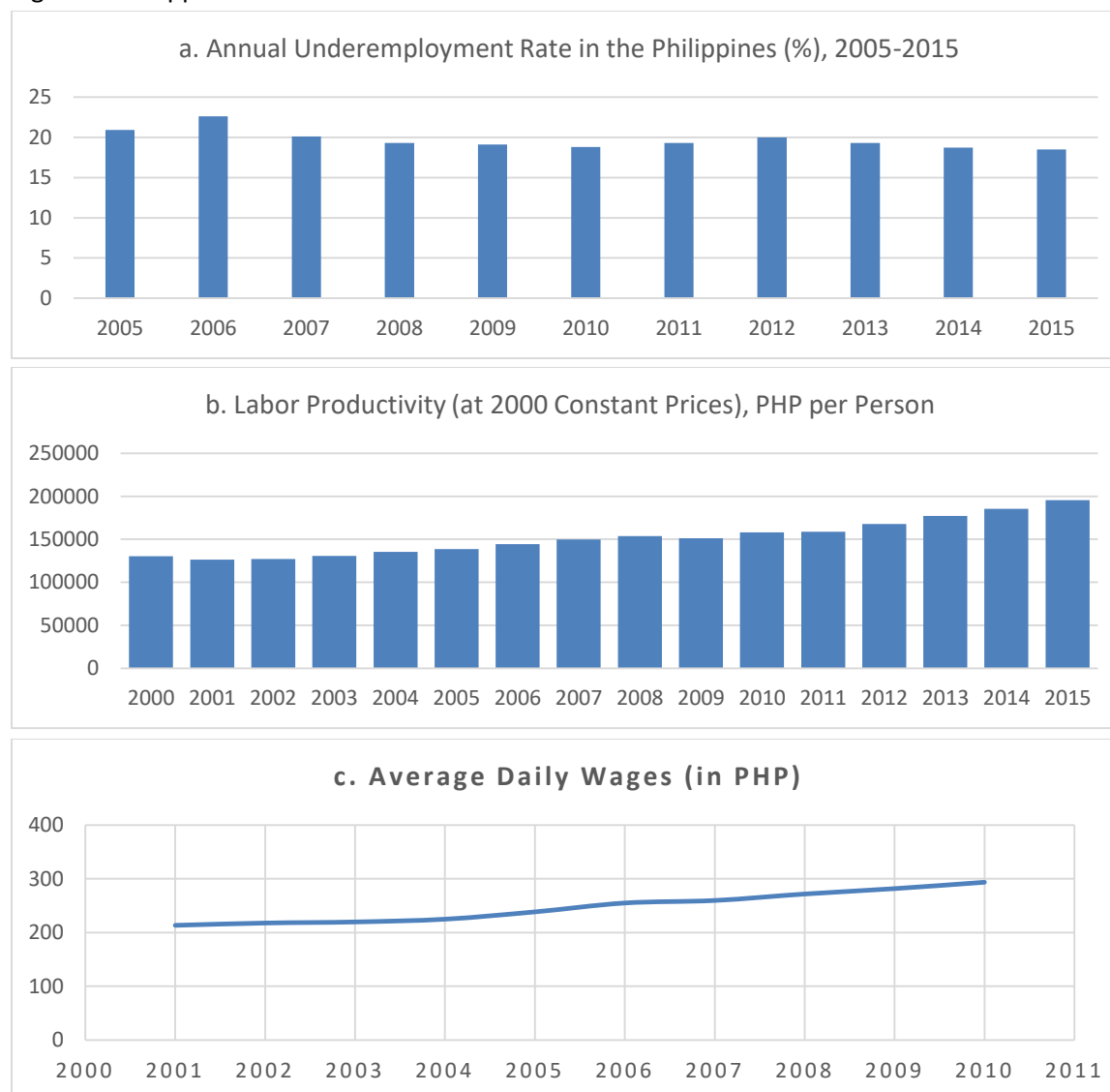
¹ From Philippine Institute for Development Studies (PIDS) database where open unemployment is 5.6% during fourth quarter of 2015 and 13.9% during second quarter of 2002.

² A typical workweek hours is equivalent to 40 hours.

³ Underemployment as of quarter 1 of 2016 is 19.7 percent. Source: PIDS database. Accessed April 7, 2016 from <http://econdb.pids.gov.ph/tablelists/table/803>

occurred in 2015, but with minimal fluctuations. Despite this, there is an increasing labor productivity⁴ (Figure 1b) and increasing average daily wages (Figure 1c). In fact, the Philippine minimum wage is relatively higher (Table 1) as compared to neighboring countries in Asia and the Pacific with low poverty rates like Thailand, Indonesia and Vietnam.

Figure 1. Philippine Labor Context



Sources: For underemployment data: Philippine Institute for Development Studies (PIDS) Database
For labor productivity and average daily wages: Philippine Statistical Authority website

⁴ Labor productivity (at 2000 prices) as of 2015: 195,661.80; Average Hours of Work (per week) as of July 2015: 42.4 hours; and Average wage rate as of 2013Q3: Php 15,772 per month
Source: Philippine Statistics Authority. Accessed April 7, 2016 from <https://psa.gov.ph/content/employment-rate-estimated-935-percent-july-2015>

Table 1. Comparison of Minimum Wages Across Countries

Minimum wage (US\$ at 2005 prices)	
Country	Mean
Fiji	3,132
Philippines	1,860
China	1,728
Papua New Guinea	1,296
Indonesia	1,140
Thailand	852
Lao PDR	684
Cambodia	444
Vietnam	408
East Asia & Pacific (developing)	888

Source: World Bank Development Report 2013

That the Philippines gives a higher minimum wage to its workers as compared to economically advanced country like Thailand is something the World Bank 2013 Report (where table 1 is sourced from) took note of. This begs to rethink the common belief of having massive employment expansion with rapidly rising wages as the key to increase the incomes of poor households and to change their poverty status. Demanding the government to impose higher minimum wages to move the poor out of poverty requires deeper thought. While keeping in mind the persistent appeal for rapid minimum wage increase, this paper looks into current data to see **how effective in reality is minimum wage legislation as a tool for improving the standard of living of the poor and other disadvantaged population groups?**

The minimum wage law and its context

Consistent with the Constitution, the Labor Code of the Philippines (LCP) was enacted forty years ago in 1974. It sets forth the rules for hiring and termination of private employees, the conditions of work, employee benefits, and the guidelines in the organization and membership in labor unions as well as in collective bargaining. The Code seeks to protect the poor against unfair labor practices, strengthen their bargaining power and promote their standard of living.

Under the current labor regulations, employers face these three binding constraints (Lanzona 2014):

- (i) *Article 234, 253A, 260 and 264, which regulate labor relations and protect permanent and unionized workers whose services cannot be terminated except for just and authorized cause subject to the requirement of due process in accordance with Article 278;*
- (ii) *Article 106, which put restrictions to subcontracting arrangements and Article 279, which mandates that an employer should offer permanent employment to a worker after a probationary employment period of six months (Article 281); and*
- (iii) *Article 127, which establishes the minimum wage law prohibiting wages from going below a certain level and disallowing the diminution of benefits once awarded.*

When minimum wage regulation was first set up in the 1950s, there was only one minimum wage set by Congress for the entire country regardless of regional and industrial differences. At the beginning during the early years of tripartite meetings (organized by the government, labor and employers), the agreement was to aim for some form of indexed minimum wage package that would include benefits. In the end, the result was a “bilateral monopoly bargaining process” between the employer and organized workers on the wage package. This process, Lanzona (2014) observes, allowed the monopolists to keep their rents and permitted the organized workers to receive a portion of such rents. Not surprisingly, he further notes, a number of workers who were not part of the bargaining process were left unemployed or employed in marginal occupations⁵.

In July 1989, to appease other employers, protect workers, and spur regional development, the Congress enacted Republic Act (RA) 6727, which delegates Congress’ power to set minimum wages to the newly created Regional Tripartite Wages and Productivity Boards (RTWPBs). The RTWPBs are mandated to prescribe minimum wage rates for their respective regions while taking into account their regional conditions.

Decentralized wage setting was thought to be a more efficient approach for several reasons. In general, a decentralized system allows for minimum wages to be better aligned with local preferences and labor market conditions, which differ by regions. As Lanzona (2014) argues:

.... For example, an underdeveloped region can set lower minimum wages to attract new investments and thus move the region from a bad equilibrium (i.e., low density of economic activity and low employment) to a good equilibrium (i.e., high density of economic activity and high employment). In this case, the short-run efficiency costs of setting minimum wages could be small compared to the potential long-run benefits of moving to a better equilibrium.

At one time, there were over 200 hundred legal minimum wages, depending on type of industry and size of firm. Currently, there are about 51 LMWs (Table 2)⁶. LMWs is applicable to all firms with more than 10 workers. Moreover, enterprises with assets of less than PHP 3.0 million are exempted from LMW, provided they register with the Barangay Micro Business Enterprise.⁷ In consideration of distressed enterprises, they can ask the Secretary of Labor and Employment (DOLE) for a temporary minimum wage waiver. Relatively few firms, however, have enjoyed this waiver.

⁵ Sicut (1986) noted that the timing of the institution of minimum wages coincided with import substitution policies and the state’s bias against export-oriented labor-intensive industries. In time these policies, by Sicut’s reckoning, led to a greater application of mechanized operations at the expense of labor (a development favorable to monopolies during the time).

⁶ National Wages and Productivity Commission (NWPC). Accessed April 7, 2016 from http://www.nwpc.dole.gov.ph/pages/statistics/stat_current_regional.pdf

⁷ RA 9178 exempts barangay micro business enterprises (BMBEs) from the coverage of the minimum wage law. The potential effect of this exemption, however, is diluted by the provision in RA9178 that all employees covered under this Act shall be entitled to the same benefits given to any regular employee such as social security and healthcare benefits.

Table 2. Current Minimum Wages in the Philippines (as of March 2016)

Region	Non-Agriculture	Agriculture	
		Plantation	Non-Plantation
NCR	444.00 - 481.00	444.00	444.00
CAR	265.00 - 285.00	255.00 - 270.00	255.00 - 270.00
I	227.00 - 253.00	233.00	227.00
II	247.00 - 255.00	235.00 - 243.00	235.00 - 243.00
III	306.00 - 357.00	291.00 - 327.00	279.00 - 311.00
IV-A	267.00 - 362.50	267.00 - 337.50	267.00 - 317.50
IV-B	217.00 - 285.00	225.00 - 235.00	225.00 - 235.00
V	248.00 - 265.00	248.00	248.00
VI	256.50 - 298.50	266.50	256.50
VII	295.00 - 353.00	275.00 - 335.00	275.00 - 335.00
VIII	260.00	241.00	235.00
IX	280.00	255.00	235.00
X	303.00 - 318.00	291.00 - 306.00	291.00 - 306.00
XI	317.00	307.00	307.00
XII	275.00	257.00	257.00
XIII	268.00	268.00	268.00
ARMM	265.00	255.00	255.00

Source: National Wages and Productivity Commission website

The question at this point is: **To what extent is the minimum wage legislation being followed?** According to DOLE's data, based on random inspection of firms, the rate of compliance with the minimum wage regulation is about 82 percent. However, critics think that the real compliance rate is much less than this figure. For example, Paqueo et al (2014) estimates that 35 percent of workers earn less than subsistence income. Part of the reason is that 43.5 percent of employed labor are self-employed or informal sector workers.⁸

Conflicting hypotheses about the LMW effects

At first glance, it would appear that workers' household incomes could be increased by mandating large increases in LMWs. Many have, therefore, jumped to the conclusion that raising LMWs is a way to provide workers a family living wage needed to exit poverty. The implicit assumption is that LMWs have little, if any, impact on the total employment rate. It is important to verify this assumption, because if this is wrong and in fact LMWs have significantly large negative impact on employment rate, then a high LMW policy could unintentionally hamper rather than facilitate the movement of households away from poverty.

⁸ 2008 DOLE Statistics. Accessed April 7, 2016 from <http://www.dole.gov.ph/fndr/bong/files/Workers%20in%20the%20Informal%20Economy.pdf>

Standard textbook analysis. Under a perfectly competitive market, textbook analysis predicts, decidedly, **that an increase in LMW will reduce a firm's level of employment.** This is based on the assumption that the market consists of many small firms and that no one firm is able to exercise any significant influence on the wage rate it pays to its workers. To understand this better, imagine each firm under this market situation as an individual price taker -- the price of labor being the market (not minimum) wage rate. The interactions of all employers and workers taken together determine the wage rate in this scenario, that is at what price will an employer "buy" the services of a worker given other "buyers" (employers) and "sellers" (workers).

A typical profit maximizing firm in this situation expands its number of workers for as long as the cost of hiring an additional worker is less than the additional revenue he produces for the firm. That is to say, a firm will hire additional workers for as long as they add to the firm's profit. **It stops hiring when the firm can no longer earn additional profit from hiring more workers.** At this point, the firm no longer has any incentive to expand employment. At break-even, therefore, the wage rate a worker receives from the firm (fixed by the market, not minimum) is equal to the value of his contribution to the firm's total revenue.

Imagine now that Government mandates all firms to pay their workers a minimum wage of at least LMW⁰, set above the market wage. This policy will induce the above firms to lay off some of its workers. This is because continuing to employ them would cost the firms more than the revenues they are expected to bring in.⁹ Therefore, in a perfectly competitive model, a high LMW set at a level above the market wage rate would have a negative (albeit, unintended) consequence on workers' employment.

Consider this scenario. The above textbook analysis assumes that all workers are the same. Let us now assume instead that they differ in their productivity (actual or perceived) and that they can be arranged from lowest to highest level of productivity. Suppose further that at the beginning, a firm has 1,000 workers and that 30 percent of them earn the minimum wage rate of say 100 pesos per day, which is the additional revenue a minimum wage worker brings to the firm's coffers. In this scenario, what would happen if the Government mandates a higher LMW of say 200 pesos? This new mandate arguably would induce a profit maximizing firm to lay off at least 30 percent of the workers, as it would now have to pay the minimum wage workers an amount far greater than what they would add to the firm's total revenue. Laying them off would save the firm some money.

A further implication is that the higher LMW would induce dis-employment effects that are discriminatory against workers with weaker credentials and lower human capital. That is, firms would first lay off workers with no work experience, low education, low training and other characteristics associated with low human capital. The welfare of workers, particularly the poor, the less educated, the young and women, could be seriously hurt. This contradicts the intention of government mandates and regulations, that is to curb presumed employers' abuses, monopsony power, where there is only one buyer and unfair bargaining advantage over individual workers. Moreover, it can be argued that high minimum wages in conjunction with other restrictive laws such as the 6-month regularization rule¹⁰ could result in discouraging firms from investing in on-the-job training. This is because such laws prevent firms

⁹ This result is due to the law of diminishing marginal returns

¹⁰ Further discussed in Chapter 4 of this volume by Paqueo and Orbeta (2016)

from regaining their investments in training the young and inexperienced. As a result, the disadvantaged group experience inadequate skills formation and high unemployment rate.

Alternative views. Many economists question the realism of the above textbook analysis. They argue that in the real world, a firm has some control over the wage rate it pays its workers. There are several hypotheses on this score. One idea is that by giving a higher wage rate, a firm can increase workers' morale and, therefore, work effort and productivity. The firm can also reduce turnover rates, which can be costly. Another idea, especially relevant in poor communities, is that by giving higher wages, a firm can improve workers' health and nutrition and, consequently, their level of energy and work effort.

In both cases, a profit maximizing employer determines not just the level of labor inputs but also the wage rate of its workers (fixed in the standard competitive model). In this alternative model, an employer limits the number of workers to a point where hiring more laborers would no longer contribute any additional profit to the firm. As in the standard textbook analysis, their additional contribution to the firm's total revenue at equilibrium is just equal to the additional cost of employing them.

But here, unlike in the standard model, the wage rate that the employer pays its workers is less than the value of its contribution to the firm's total revenue.¹¹ **Hence, in a situation where the firm has control of its workers' wage rate, it earns excess profit over what it would have realized, if the firms were in a perfectly competitive market.**

What then would be the impact of LMW on employment under this scenario? Imagine again that LMW is set at a level LMW^0 where the employer is compelled to pay its workers a higher wage rate equal to the amount that would have emerged in a perfectly competitive market (a firm is a price taker). This government intervention would induce the firm to employ more workers up to the point where cost of hiring an additional worker at LMW^0 would just equal to his revenue contribution.¹² If, however, the LMW is set at a much higher level than LMW^0 , the firm could be pushed to dis-employ some workers.

Yet another view on the impact of LMW is its so-called "*cleansing effect*". The hypothesis here is that the introduction of a high LMW will cause the weeding out of low productivity firms and push firms to be more efficient, resulting in resources moving from less to more productive enterprises and industries. Eventually, the "*cleansing*" of the economy could result in the expansion of more and better jobs.¹³ Arguably, this positive employment impact is likely to be obtained in the context of a dynamic economy that has a general policy environment favorable to technological change and investments.

To round out the discussion in this section, we agree that worker protection is desirable not only for its social value but also for facilitating skills formation. Ensuring workers of their respective jobs creates incentives for them to learn more firm-specific skills and in the process be more productive. **Protectionism, however, can be overdone and cause deleterious effects on the industry, and hence increase unemployment and eventually reduce skill formation.** Just like medicine, when abused, it can be worse than the disease.

¹¹ Villanueva (1996) estimates that in the Philippines the value of an average worker's contribution to the firm's total revenue is more than the wage rate that the employer pays its workers. He, therefore, concludes that raising the minimum wage should increase rather than decrease employment. Unfortunately, he did not empirically test the impact of LMW on employment.

¹² The textbook case of a monopsony, where the labor market has only buyer, yields a similar analytical result.

¹³ On a discussion of the "*cleansing effect*" of LMW and the empirical evidence in China, see Mayneris et al. (2014)

Empirical evidence on LMW impact

It is clear that theoretically the impact of LMW on employment can be positive, negative or insignificant, depending on the actual situation facing the employer and on the level of LMW. This theoretical result implies that the question about the impact of LMW on employment and, therefore, household income and poverty can be resolved only empirically. This section now presents empirical evidence on the effects of LMW on hours of work, employment and household income and poverty incidence.

International studies reviewed by the World Bank (2013) found that the impact of LMW on employment is mixed. A similar conclusion was reported by Canales (2014), who however noted, in addition, that the LMW employment effects are generally negative in developing countries.

Studying the case in the US, Brown, Gilroy, and Kohen (1983) estimated the elasticity of teenage employment with respect to the minimum wage. They found that a 10% increase in the minimum wage reduced teenage employment by 1-3%. Some authors find positive estimates of employment elasticity with respect to minimum wages. In particular, a 10% increase in the minimum wage increased employment by around 3.5 percent (Card, 1992), 7.3 percent (Card & Krueger, 1994) and even up to 17 to 26.5 percent (Katz and Krueger, 1992). Brown (1999: 2154), in his review of minimum wage literature in the United States concluded that the minimum wage effect was modest.

To illustrate the impact of the LMW in developing countries, several studies in South America and one in Indonesia traced its negative effects on employment. The study of Castillo-Freeman and Freeman (1992) were able to observe large reductions in employment in very small industries in Puerto Rico. LMW found modest effects on employment, that with a 10% increase in minimum wages will reduce only 1 percent of employment. Another study, this time by Montenegro and Pages (2004) in Chile also found detrimental effects of minimum wages, in such a way that instead of a reduction in employment, available employment are shifted from young and unskilled workers to older and female workers.

Gindling & Terrell (2007) found negative impacts of minimum wages on employment in Honduras. Their estimates claim that a 10 percent increase in minimum wages reduces employment by 4.6 percent. According to Sugiyarto and Endriga (2008) doubling of minimum wage in Indonesia could decrease the employment of unskilled workers by 2 percent. In addition, the doubling of minimum wages also decrease the provision of in-house training to unskilled workers by 34 to 39 percent.

What's the story in the Philippines? Hours of work significantly declined, and the probability of gaining/retaining employment fell by about 8% to 22%, following an increase in LMW (Canales 2014). These adverse employment effects are inconsistent with the predictions of models where firms have control over their workers' wage rates. Her conclusion: the Philippine labor market as a whole is better described as competitive rather than monopsonistic.

Another study by Lanzona (2014) showed that the LMW had a "significant" negative impact on labor force participation by all individuals, and notably among the young, inexperienced, less educated, and women. These groups presumably showed lower productivity relative to their older, more educated, experienced and male competitors for jobs. Using the fixed effects model alone, an increase in LMW of 10% would lead to declines in labor participation rate (negative elasticities) by -6.36% (for all workers), by -5.97% and -3.64% (among teenagers and young adults relative to 50 years old and over), and by -2.36% (no schooling relative to college educated).

The average real income of households would have grown faster by about 20%—and household poverty would have been lower—if the LMW had increased more slowly over time (Paqueo, Orbeta, Lanzona and Dulay 2014). The total income of a household with just one minimum-wage earner is likely to be smaller than a household where the wife, and perhaps the older children too, can also work but at lower, market-determined wages. Interestingly, the study finds that a faster rise in LMW significantly increases poverty incidence by 1.7 to 3.0 percentage points.

The LMW had a “significant” adverse impact on employment by smaller firms, those with average assets below PHP 1.1 Billion (Lanzona 2014). (See Table 2). In contrast, larger companies (asset size above PHP 1.1 Billion) showed much smaller negative, and even some positive, elasticities. These might be monopsonists who enjoy greater hiring leeway because of their size and market presence (Lanzona 2014).

Conclusion

The Philippines has learned to grow its aggregate output faster and more sustainably in recent years. But It still has to learn how to achieve sustained reduction in the incidence rate of poverty. On this question, many believe that large increases in minimum wages would significantly reduce poverty by raising workers’ earnings without decreasing employment opportunities.

In theory, the impact of LMW on employment can be positive, negative or zero, depending on one’s assumptions about the market situation and the underlying mechanisms governing wages and employment decisions. Looking at the current empirical evidence, we similarly find that the LMW effects are mixed. On balance, though, the size of the employment impact in developed countries tends to be negligible or slightly positive. Some influential advocates of higher LMWs have used this finding to support calls for large increases in LMWs.

A review of the empirical studies that were rigorously done using Philippines data show, however, **that contrary to the above findings, increases in LMWs have had statistically and quantitatively significant negative impact on employment and hours of work.** Equally worrisome, those LMW increases have had disproportionate unfavorable and discriminatory effects on the employment opportunities of disadvantaged population sub-groups. Further along, larger increases in LMWs tend to reduce average household income and raise the prevalence rate of poverty.

A lesson learned here is the danger of basing policy decisions on empirical results drawn from foreign experience without validating their applicability to local conditions. Such practice often leads to detrimental (albeit, unintended) consequences.

Another lesson is the need to temper the impact of LMW increases. On this score, there is wisdom in the policy view of government to temper demands for large rises in LMW. It is to government’s credit to temper the effects of LMW by decentralizing the setting of minimum wages to regional authorities to take into account differences in regional conditions. It is also laudable that their decisions on LMW adjustments have been based to some extent on productivity growth and price inflation. Arguably, though, there is room for improvement in making those decisions.¹⁴

¹⁴ In her analysis of the determinants of LMWs, Bersales (2014) finds that though productivity growth and inflation are good determinants of minimum wages, other adjustments must still be made. Several criteria used in the “Wage Rationalization Act” or R.A. 6727 have not been included in the formula due to the unavailability of data.

Having said the above, it is important to stress that the government has yet to recognize and address the need to temper the discriminatory impact of LMWs on the employment opportunities of disadvantaged population groups. These are the poor, the young and inexperienced, the less educated, and women – workers that have relatively lower human capital. In this regard, **it would be desirable to develop and test compensatory interventions that would reduce, if not completely reverse, the discriminatory effects of LMWs to promote greater inclusiveness.**

Equally important is the need to study empirically the impact of tightening the design and implementation of the current six-month regularization law and “labor contractualization”.¹⁵ During the recent presidential election season, many influential politicians promised to adopt more stringent measures to ensure that those regulations are effectively implemented and enforced. What is concerning in this regard is the lack of studies on the impact of those regulations. Such studies, using Philippine data, are needed in view of recent findings about the potentially detrimental effects of those regulatory measures on employment opportunities, particularly of disadvantaged workers. A recent study¹⁶ of the experience of developed countries suggests that banning temporary employment or mandating firms to “regularize” or fire workers after only a few months of work can potentially exacerbate the unfavorable employment effects on LMWs.¹⁷ It would be useful to validate the above-mentioned studies to inform public decisions about those issues and avoid unintended consequences.

¹⁵ Further discussed in Chapter of this volume by Paqueo and Orbeta (2016)

¹⁶ Lepage-Saucier (2013) argues that the elimination of temporary contracts decreases total employment by 7 percentage points

¹⁷ Under conditions of high LMW, it can be argued that the cost of hiring and then firing a worker who turns out to be unproductive is greater with higher LMWs. Therefore, a risk-averse firm would be discouraged from trying out and hiring workers with more uncertain qualifications, in particular, workers with little work experience and without credentials from well-known good quality schools – meaning the poor and the young.

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