



Earned Income Tax Credit Policy with Adequate Income as a Benchmark for Informally Employed Thai Workers

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Abstract

This paper aims to review the current labour market situation and related public policies concerning informally employed Thai workers and investigate the effects of the adequate income (AI) and earned income tax credit (EITC) schemes on informally employed, low-income workers in Thailand. Although various national schemes are provided, both targeting informally employed workers and the ability to consistently co-pay, the prevailing social welfare schemes for informally employed workers in the Thai labour market remains problematic. By concretely analysing the data, we found that EITC can alleviate the problem by incorporating available governmental schemes with AI as a benchmark. This scheme could affect approximately more than 12 million workers, most of whom are informally employed workers who will benefit if the EITC is implemented. Despite the tremendous coverage costs, we still conclude that the programme is likely to be feasible from the financial and political aspects even at the first stage of implementation.

Keywords: Informally employed workers, Thai economy, earned income tax credit, adequate income

JEL Classifications: E26, H24, J48, O17

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1. Introduction

Several studies have observed with empirical support that the informal economy in Thailand is large and has been expanding over the last two decades. During periods of economic crisis and volatility, workers are dissociated or removed from employment in the formal sector (Lim, 2000; Endo, 2014). These workers are unlikely to be protected by labour laws and are left to work with high levels of risk and uncertainty. Despite the efforts of the Thai government in providing equal rights and benefits for all workers regardless of working status, access to welfare and social security for these workers is currently limited in comparison with those who hold contracted employment status in the formal sector. The difficulties commonly faced by these workers concern low- or uncertain-earning contracts, limited occupational choices and sometimes working conditions which are unpleasant or even hazardous to their health.

The work of Wannarat (2014) on the informal Thai economy showed that despite the predicament having been intermittently debated by scholars since the 1980s, studies on the informal Thai economy are scattered and many of the fundamental issues not explicitly discussed. In 1988, the National Economic and Social Development Board reported many articles related to the informal economy and employment therein. However, those articles defined terminologies related to the informal economy differently and likened them to private business or freelance workers. Thus, such studies as a whole remain underdeveloped and incomplete as they currently lack in-depth investigations based on essential worker characteristics.

Until the late 1990s, the term ‘informal economy’ was widely used in this field. An informal economy comprises activities and businesses with unprotected and unregulated employed workers¹ (WIEGO, 2017). After the crisis in 1997, hundreds of thousands of workers were removed from jobs in urban and factory settings. After the recovery in 2004, most of these workers decided not to return to the agricultural sector, thereby significantly and permanently expanding the informal economy in the country and increasing concerns about social protection for informally employed workers from the government. Under the Shinawatra regime from 2001 to 2006, details of informally employed workers in the Thai economy were publicly documented². Subsequently, the People’s Bank established a credit programme for issuing low-interest-rate loans to self-employed workers. However, Thai statistics show that many workers in the informal sector³ still lack access to welfare and many social benefits due to certain financial obstacles and current policy designs that have yet to be improved.

This study aims to (1) clarify the situation and survey the current policies concerning informally employed workers in Thailand and (2) outline and compare the effects of the adequate income (AI) and earned income tax credit (EITC) schemes on informally employed, low-income workers within the market. Lastly, the political

¹ See <http://www.wiego.org/informal-economy/about-informal-economy>

² Various publicly issued registrations for informally employed workers covering motorbike taxi and taxi drivers in 2003 and street vendors in 2005

³ “The informal sector is broadly characterised as consisting of units engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned. These units typically operate at a low level of organisation, with little or no division between labour and capital as factors of production and on a small scale. Labour relations - where they exist - are based mostly on casual employment, kinship or personal and social relations rather than contractual arrangements with formal guarantees”, obtained from Resolutions Concerning Statistics of Employment in the Informal Sector, adopted by the 15th International Conference of Labour Statisticians, January 1993, para. 5.

feasibility and effects of our proposed model and suggestions for further studies are discussed in the last section.

Our two main contributions to the literature are as follows. Firstly, we extend the policy analysis of the works of Ananapibutr et al. (2014) and Muthitacharoen (2014) by introducing AI as the benchmark for suggesting the level of EITC for informally employed, low-income workers. Secondly, we offer a definition of informally employed workers in Thailand in addition to that proposed by the Thai National Statistics Office (NSO). This new definition allows us to provide in-depth estimates of coverage rates and costs before and after policy implementation.

The primary data used in this study is from the 2013 Socio-Economic Survey (SES), an annual survey collected by the Thai NSO. The national data is usually released two quarters after the end of the reporting year. We aim to compare our budget estimations for EITC with those in other works, such as the Fiscal Policy Office (FPO) and Muthitacharoen (2014), which utilised the SES 2013 by assuming that AI is the level of income that workers must be paid to achieve a median level of living standard in society. This assumption is in line with the works of Hatfield et al. (2010) and the Greater London Authority (2015). We estimate that the weighted average AI of Thai workers should be approximately 8,972 baht per head per month or 408 baht per head per day. Therefore, this transfer, which we name ‘generous transfer’ and is benchmarked by AI, should be higher than what the FPO proposed initially.

Our results show that the estimated number of informally employed workers and their vulnerability in the Thailand labour market are underestimated. EITC, with AI as the benchmark, will potentially affect 12 million workers, most of whom are informally employed. Moreover, approximately 80 percent of informally employed beneficiaries can join and be covered by the current Thai social protection platforms, including (1) the first choice of Article 40 of social security, (2) the second choice of Article 40, (3) National Savings Fund, and (4) combination of the first choice of Article 40 and the National Savings Fund.

The rest of the paper is organised as follows. The second section explains the definitions used and the vulnerability of informally employed workers in Thailand using SES 2013. Next, a review of current Thai public policies regarding informally employed workers is provided in the third section. The fourth section discusses the definitions, mechanisms and feasibility of implementing the AI–EITC policy for informally employed Thai workers. The last section provides conclusions and suggestions for further studies. Moreover, the underlying assumptions and limitations of the data, which apply to all sections, are listed in the last part of the paper.

2. Informally Employed Workers in Thailand

2.1 Defining the Informally Employed Workers in Thailand

According to statistics collected by the Thai NSO, two data sets can be used to identify and study informally employed workers in the Thai economy. They are the SES and the Labour Force Survey (LFS) with an ‘Informal Employed Workers’ module attached. These national surveys have several significant differences. SES is collected annually and mostly based on households and their characteristics. Conversely, LFS attempts to capture the state of the labour force quarterly and covers working conditions, status and workers’ compensations. Hence, the number of informally employed workers must be estimated from each survey using different approaches. This research utilises only SES data for capturing the complete picture regarding this

incident because the earned income surveyed by LFS is limited only to wage earners and ignores income data from agricultural workers and business owners.

Regarding the definition of NSO, formality is categorised by the insurance of workers granted from work. Mandatory schemes, such as the Civil Servant Medical Benefit (for civil servants) or state enterprise benefits (for state employees), are straightforward. However, the Social Security Act legitimately grants three sets of benefits for different co-payments. Mandatory social security is stated by Article 33 and involves collecting tripartite payments from the employer, the employee and the government. Articles 39 and Articles 40 state that informally employed workers voluntarily register themselves to receive social security benefits⁴. Workers who follow these two Articles are automatically classified as formally employed persons by definition of the NSO. We are reluctant to agree with this official definition because the acquired benefits are limited and lower than those of formally employed workers⁵. Therefore, in this study, workers who work without the required contributions to the social security fund and its working benefits are still considered informally employed.

Therefore, the modified definition of informally employed workers pertains to workers who do not have any state compulsory employment welfare. From the SES database, only one variable refers to mandatory welfare from employment: ‘what is the type of medical welfare you received?’ Therefore, the term “informally employed workers” is defined by the SES database as one who does not receive any state medical welfare from employment. This classification comprises own-account workers, contributing family helpers, and groups of employers and employees who do not receive any civil servant medical benefits from the government⁶(Table 1).

Table 1: Types of informally employed workers estimated from the SES

Working status ⁷	Types of informally employed workers in the SES database
Employer	Employers, including those in general and vocational educational businesses (pre-primary to upper secondary levels) ⁸ , who do not receive medical welfare from any social security scheme
Own-account worker	Own-account workers
Contributing family worker	Contributing family workers
Employee	(1) Government and state enterprise employees who do not receive medical welfare from the government or state enterprises (2) Private employees who do not receive any medical welfare from any social security scheme (3) Employees in general and vocational education businesses (pre-primary to upper secondary levels) who do not receive any medical welfare from employers ⁹
Producers’ cooperative	Producer cooperatives

Source: Authors.

⁴ Article 39 is designed for a formally employed workers who move into the informal sector. By contrast, Article 40 is designed for workers who have been informally employed persons since the beginning of their career in Thailand.

⁵ Moreover, our interview with trade union leaders of informally employed workers reveal that they still perceive themselves as informally employed workers, despite voluntarily paying for public benefits, as per Articles 39 and 40 of the Social Security Act.

⁶ Civil Servant Medical Benefits from the government refers to the Civil Servant Medical Benefits Scheme, which is provided for civil servants only. The scheme is not relevant to the Universal Health Care, which is accessible to all Thai citizens.

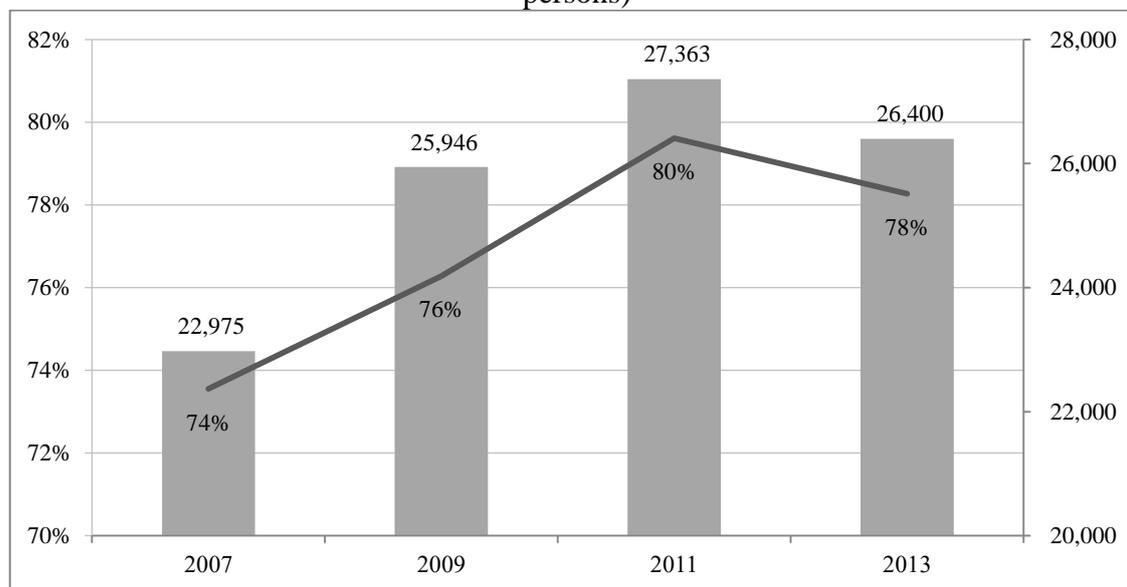
⁷ The definitions are from ILO’s 2013 publication.

⁸ These are assumed to be private school administrators who do not receive any medical welfare from the Thai Private Teacher Aid Fund.

⁹ These are assumed to be teachers and other educational staff in private schools who do not receive medical welfare from the Thai Private Teacher Aid Fund.

On the basis of our definition, we find that the proportion of informally employed workers to total workers in this country increased from 2007 to 2013 (Figure 1). The number peaked at 80 per cent in 2011, during a natural disaster in the country, which caused many workers to become own-account workers temporarily in the agricultural sector in rural areas.

Figure 1: Number of informally employed workers in 2007–2013 (Unit: thousand persons)



Source: Authors' calculation from the SES (2007–2013)¹⁰

Table 2 presents various labour force characteristics of informally employed workers. The proportions of male and female informally employed workers to the total number of informally employed workers are insignificantly different. Over 70 per cent of workers are more than 35 years old and obtained secondary-level education or lower. Moreover, 90 per cent are engaged in the agricultural and service sectors. Approximately 67 per cent of the workers are own-account and contributing family workers. These groups of workers are likely to face a high level of uncertainty concerning their daily consumption as those who receive monthly income are assumed likely to have stabilised consumption.

¹⁰ Although the SES is conducted annually, data collection in odd and even years differs. Expenditure and income are collected in odd years, but only expenditure is collected in even years. Therefore, we use only the odd year database in our calculations.

Table 2: Labour force characteristics of informally employed workers

Characteristics	Group	Percentage of total informally employed workers
Gender	Male	51.19
	Female	48.81
Age	15–24	8.66
	25–34	16.47
	35–44	24.53
	45–54	29.58
	55–64	20.76
Level of education	Lower than primary	38.93
	Primary	26.20
	Secondary	14.34
	Upper secondary	12.01
	Higher than upper secondary	8.52
Working status	Employer	3.71
	Own-account worker	41.93
	Contributing family worker	25.43
	Government and state enterprise employee	5.04
	Private company employee	23.85
	Member of producers' cooperative	0.04

Source: Authors' calculation from the SES (2013)

2.2 Vulnerability and Inequality of the Informally Employed Thai Workers

By comparing the income and working hours of informally and formally employed workers, Table 3

Regardless of their work status, formally employed workers earn a significantly higher average income than informally employed workers (Table 3). This finding is particularly true when comparing the income level of informally employed workers, most of whom have own-account and contributing family jobs, with that of formally employed workers. Table 4 shows that the proportion of informally employed, low-income workers to the total number of informally employed workers (46.7 per cent) is larger than that of formally employed workers (3.84 per cent). As expected, most of them are own-account and contributing family workers.

Table 3: Average monthly income by employment status (Unit: Thai baht)

Employment Status	Jobs by employment status					
	Overall	Own-account workers/ self-employed	Employers	Contributing family workers	Employees	Producers' cooperatives
Formal	20,710.10	-	88,392.27	-	20,172.07	-
Informal	8,086.79	7,404.17	21,302.82	6,946.74	8,375.54	14,315.77

Source: Authors' calculation from the SES (2013)

Table 4: Proportion of low-income workers who earn less than 5,000 Thai baht per month to total workers in each group (Unit: percentage)¹¹

Employment Status	Jobs by employment status					
	Overall	Own-account workers/self-employed	Employers	Contributing family workers	Employees	Producers' cooperatives
Formal	3.84	-	11.41	-	3.78	-
Informal	46.66	53.18	28.53	59.10	28.62	29.62

Source: Authors' calculation from the SES (2013)

Table 5 shows that most of the informally employed workers work more than 50 hours a week. However, the proportion of informally employed low-income workers who work more than 50 hours a week is higher than that of formally employed workers. The figures are approximately the same for the formally and informally employed worker groups. These results show that poverty might not correlate with inactivity. By contrast, low-income workers tend to work harder than those who are above the low-paid threshold. Crucial current government policies are discussed in the next section.

Table 5: Weekly working hours of employees¹² (Unit: percentage)

Employment Status	Weekly working hours			Weekly working hours (low-income)		
	Less than 30 hours	30–50 hours	More than 50 hours	Less than 30 hours	30–50 hours	More than 50 hours
Formal	1.81	32.41	65.78	8.06	12.07	79.87
Informal	4.35	14.09	81.56	5.81	9.45	84.74

Source: Authors' calculation from the SES (2013)

3. Review of Current Thai Public Policies on Informally Employed Workers

The Thai government uses various channels to deliver help and social protection to informally employed workers. There are three types of policies reviewed in this paper: pecuniary policies with co-payment, allowances for specific groups of people, and non-pecuniary social protection. Each type contains policies that have unique characteristics.

Pecuniary Policies with Co-payment aim to protect workers from occasional economic volatility and uncertainty. The state and the employed workers contribute to these policies. The current policy provided directly for informally employed workers is Voluntary Social Security: Social Security Articles 39 and 40. In addition, the National Savings Fund¹³ offers a voluntary pension scheme.

The main benefit of this policy is the creation of an efficient financial protection scheme for informally employed workers who can make monthly payments to the social security fund. Those who are unable to pay due to low and inconsistent income

¹¹ Rani and Belser (2012) proposed that low-income workers are those whose income is lower than 2/3 of the median income of total workers. When this definition is applied to the SES database, the low-income level for Thai workers in 2013 is found to be approximately 5,000 Thai baht per month.

¹² The SES database contains only the working hours of workers with employee status.

¹³ Details of these policies are shown in Table A.1 and Table A.2 in the appendix.

are left out. Although a contract is not eliminated if a beneficiary ceases their co-payment, provisions cannot be gained until the co-payment is re-activated.

Non-pecuniary Social Protection is a set of policies that aim to strengthen the living conditions of workers without requiring payment contributions. Current primary policies are the UHC, National Village and Urban Community Fund, skills development programmes and free public transport¹⁴.

Informally employed workers, especially those of low-income, have access to benefits from these policies. For example, the UHC allows all workers to receive medical treatment in public hospitals without any charge. Amartya Sen comments that 'Thailand's experience in universal healthcare is exemplary, both in advancing health achievements across the board and in reducing inequalities between classes and regions' (Sen, 2015). Moreover, workers who want to develop their skills can join development programmes that are entirely supported by the government.

Allowance for Specific Groups of People pertains to policies that provide conditional cash transfers or loans from the government to specific individuals. Only informally employed workers who meet specific state criteria can receive conditional cash transfers or loans. For example, the old-age monthly allowance subsidy pays at least 600 baht monthly for those who aged 60 or over.

Policies in this category initially aim to alleviate the vulnerability of informally employed workers. For example, registered informally employed, old-age workers receive monthly payments from the government to help satisfy their daily needs and consumption. Also, informally employed workers who want to start small businesses may apply for credit from government banks or offices of the National Village and Urban Community Fund across the nation. However, these policies limit their benefits to groups that meet specific government requirements; not all informally employed workers are entitled to such assistance.

In the past decade, the Thai government has attempted to implement various policies to help informally employed workers. These workers can benefit from the Social Security and Saving Scheme and take advantage of healthcare, skills development and public transportation supported by the government by directly contributing part of their money. Certain informally employed workers can also apply for conditional cash transfers and loans from the government. These benefits are summarised in Table 6.

However, certain informally employed workers encounter difficulties in accessing these benefits. For instance, some cannot receive benefits from pecuniary policies with co-payment as they are unable to pay the monthly contribution. Moreover, workers who do not satisfy government conditions cannot receive an allowance from the government. These are the gaps that should be addressed in the future.

On the basis of our review, we recommend that the government focus on eliminating barriers to gaining access to these policies. Pecuniary policies with co-payment should be made directly beneficial to all informally employed workers in the country. Policies that can increase the ability of informally employed workers to make co-payments regularly should be developed¹⁵. Barriers to gaining access to the

¹⁴ Details about these policies are shown in Table A.3 to Table A.4 Table A.5.

¹⁵ Political economists may see a third solution, which is the promotion of trade unions or other forms of coordination among groups of informally employed workers. This approach is founded on the belief that collective action is the foundation of bargaining power for workers. However, this choice may face some difficulties due to different working locations and group characteristics. Moreover, the methodology and framework of this study are focused on mainstream economics. We will cover this issue in our next study, which will focus on the use of a political-economic approach.

allowance for specific groups of workers ought to be studied in the future. A proper solution needs to be formulated because this policy group is not designed explicitly for informally employed workers. Therefore, supporting plans that allow informally employed workers access to the benefits of pecuniary policies with co-payment should be explored and must satisfy three properties: i) inclusivity, ii) non-overlap and iii) feasibility¹⁶.

Table 6: Summary of current policies for informally employed workers¹⁷

	Pecuniary policies with co-payment	Non-pecuniary social protections	Allowance for specific groups of people
Type of benefit	Social security Savings	Healthcare Skill development Transportation	Cash transfer Loan
The target group of policies	Informally employed workers	General people	Specific groups of people
Difficulties/Gap	Some informally employed workers cannot afford the monthly contributions.	-	Informally employed workers who do not satisfy the conditions of the policies cannot receive the benefits from the policies.

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¹⁶ Inclusivity means that as many informally employed workers should be covered as possible by the policy. Non-overlap means that the new policy instrument should not duplicate the role of current policies. If such is the case, overlapping policies should be merged or synchronised. Lastly, feasibility entails that the policy should pass financial and political feasibility testing.

¹⁷ See additional information in the Appendix.

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4. Adequate Income and Earned Income Tax Credit

On the basis of the criteria mentioned in the previous section, we select two possible tools to explore, AI and EITC, due to their widespread acceptance and successful implementation elsewhere around the world.

According to Anker (2011)²⁰, AI represents the minimum work pay that can allow workers and their families to achieve a median standard of living. This minimum work pay should provide more than the necessities of life (food, shelter and clothing). In other words, expenditure for healthcare, education, transportation, recreation or savings should be covered by this amount. Therefore, AI is applied to justify how much, as a benchmark in monetary value, one should earn in order to reach a proper standard of living.

The EITC is a programme for workers who earn less than a certain amount. In EITC, such workers are directly subsidised by conditional cash transfers instead of paying tax. Set conditions vary across countries, but the transfer is most likely only for those who work to prevent disincentives. Therefore, EITC partially helps workers not to slip out of an acceptable standard of living or serves as a safety net when the earned income of these workers is insufficient. The focal point is using the EITC programme to allow workers to achieve AI.

We have several reasons to advocate such programmes for informally employed workers. Firstly, the FPO under the Thai Ministry of Finance conducted a study and submitted a proposal in 2013 and 2014 that cover lessons learned from other countries concerning cost estimation and legal modification and suggested offices to be responsible for the possible implementation of the programme. If initiated by a Thai authority office, the proposal might show promising signs and potentially lead to actual implementation. The FPO proposal and its structure serve as the basis for our analysis since they have already taken the particular Thailand context into account.

The solid line in Figure 2 represents the amounts of transfers under the FPO scheme. Any employed workers whose earned incomes are lower than 30,000 baht per year fall under the 'phase-in' range and receive cash transfer at 20 per cent of their earned income. For example, if one earns 20,000 baht per year, one will receive an additional 20% of that 20,000 baht or 4,000 baht of cash transfer. Employed workers who earn 30,000–80,000 baht per year are classified into the 'phase-out' range and receive cash transfer of 6,000 baht deducted by 12% of the amount that exceeds 30,000. For instance, if one earns 50,000 baht per year, then 12% of the exceeding amount is $12\% \times (50,000 \text{ minus } 30,000) = 2,400$ baht. The final amount of transfer one receives will then be 6,000 minus 2,400 = 3,600 baht (solid line and boldfaced rates in Figure 2)²¹.

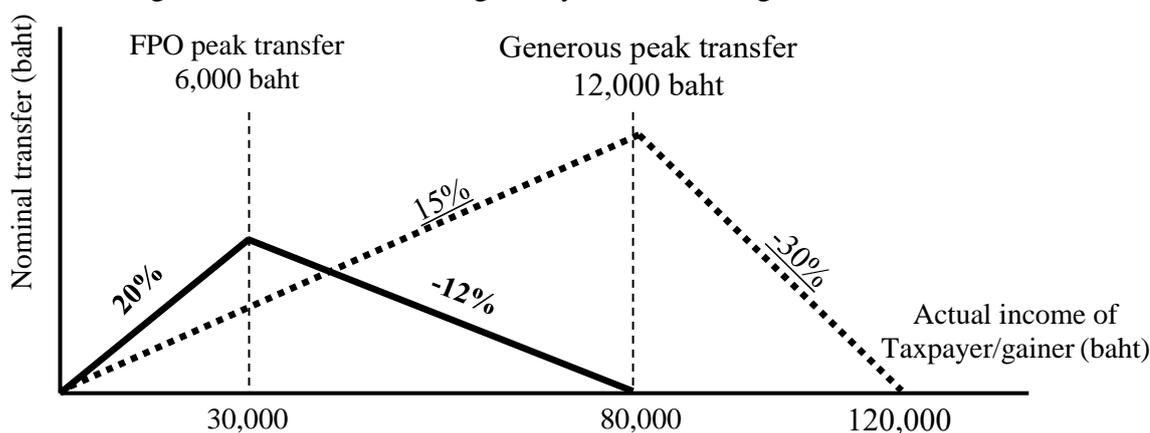
Our generous scheme, which is denoted by the dotted line in the figure, bases each point of phase-in and phase-out differently because AI is utilised as a benchmark. In the FPO scheme, the poverty line level (30,000 baht per year) ends the phase-in

²⁰ We use 'adequate income' to refer to the term 'living wage,' which appears in Anker (2011).

²¹ Other conditions are that beneficiaries must be Thai, part of a labour force (aged 15–60 years old) and have unearned income of 2,400 baht per year at most. Unearned income includes 1) pension annuities or welfare, 2) work compensation or terminated payment, 3) assistance from persons outside the household, 4) social pensions for the elderly and disabled from the government or other agencies, 5) private or government-sponsored scholarship, 6) income from accommodation rental, 7) license and copying, 8) interest earned from banks, government bonds and the like, 9) interest earned from private loans, 10) inheritances, bequeathals and gifts, 11) proceeds from health or life insurance and 12) other income, lottery winnings, commission and the like. All items included on this list are in cash terms only and do not involve remuneration in kind.

range; in the generous scheme, the line is pushed to 80,000 baht per year or the annual minimum wage. Moreover, the end of the phase-out range is moved to be 120,000 baht per year, or at a roughly estimated AI level on the basis of the AI level of 470 baht per head per day, which is calculated from the average rates in Bangkok and the central region. The peak transfer increases to 12,000 baht per year as we assume that workers can use this transfer for co-payment in voluntary social security and the National Savings Fund.

Figure 2: Transfer rate designed by FPO and our generous scheme



Source: Adapted from Ananapibutr et al. (2014)

Second, although working disincentives may be ambiguous because empirical evidence cannot be conducted ex-ante, the literature finds trivial disincentive effects. Conversely, some studies even find strong attracting effects for the out-of-labour force to re-enter the workforce because EITC is only provided to those who work²². From the Friedman advocacy of the collecting transfer effects of interest study which was conducted in the United States and Canada in the 1970s, there is no evidence showing withdrawal from a whole segment of the labour force. Hours worked may have significantly dropped, but the effect is not likely to make the programme unaffordable (Mofitt, 1981; Widerquist, 2005). The literature is replete with consistent results. Eissa and Liebman (1996) examined the first expansion of EITC in the States and found that the participation of single women in the labour force increased up to 2.8 per cent, but the relative hours worked by the labour force remained unchanged. Eissa and Hoynes (2011) used 2001 data and concluded that cash transfers relatively encourage participation more than hours worked slightly discourages it. Also, Trampe (2007) and Athreya, Reilly and Simpson (2015) confirmed that a small reduction of hours worked significantly affects participation.

Finally, EITC has been successfully implemented around the world, reducing inequality in Singapore, narrowing the poverty gap in Israel, increasing purchasing power in Australia and encouraging married women in particular to rejoin the labour force in the United States and the United Kingdom (Ananapibutr et al., 2013). Cash transfers also cause positive externalities, such as a decreased rate of low-birth-weight, newborn children through the improved nutritional intake of mothers and a reduced drop-out rate in schools (Widerquist et al., 2005). Therefore, we intend to see

²² According to the NSO report on LFS in 2013, approximately 15.8 million persons or 28 percent of the working-age population are not in the labour force.

informally employed workers invest their cash transfers into pecuniary policies with continuous co-payment as the side effect of such transfers

4.1 EITC with AI as a Benchmark

According to Hatfield et al. (2010) and the Greater London Authority (2015), an AI level should be high enough to enable workers to achieve a median level of living standard. Hence, the method for AI calculation in this paper involves applying household expenditure from SES 2013 under four assumptions. Firstly, the authors separate the data into five calculated regions: Bangkok Metropolis and the provinces around it and the Central, Northern, North-Eastern and Southern regions. Secondly, data includes only the municipal areas and excludes rural households. Thirdly, each AI component is summated from the median value of cash spending and non-pecuniary consumption of scoped households. Lastly, workers in this calculation are those who are 15–64 years old. Our results are shown in Table 7. In brief, the AI weighted average of Thai workers should be approximately 8,972 baht per head per month or 408 baht per day.

FPO proposed that the phase-in range stop at the poverty line (approximately 30,000 baht per year) and the phase-out range stop at the minimum wage of 300 baht per day (approximately 80,000 baht per year). However, to reach AI (Table), we step further and let the transfer phase-out stop roughly at AI (approximately 106,280 baht per year), thereby raising peak transfer to 12,000 baht per year (Figure 2). We do not have any justification for the amount, and nor does the FPO for their rate. This rate is deemed acceptable through trial-and-error.

Table 7: Estimates of adequate income in Thailand in 2013–2014
(Unit: Baht per adult-head)

	Bangkok and its peripherals	Central	Northern	Northeastern	Southern
Food and drinks	4,773	3,728	2,704	2,810	3,473
Housing and related issues	2,785	1,720	1,283	1,127	1,675
Clothes	200	150	100	80	175
Private spending	375	283	195	183	270
Medical care	16	6	0	0	0
Transportation	1,688	1,193	704	667	1,055
Communication (via mobile or online devices)	567	300	200	150	300
Leisure and religious acts	473	278	122	125	175
Preliminary cost (PC)	10,877	7,658	5,308	5,142	7,123
Saving money (15%*PC)	1,632	1,149	796	771.3	1,068
Monthly adequate income (MAI) in 2013	12,509	8,807	6,104	5,913	8,191
Populations	3,336,722	3,050,964	1,613,522	2,282,823	1,311,816
Daily adequate income (DAI) in 2013 ²³	569	400	277	269	372
DAI in 2014 ²⁴	576	406	281	272	377
Weighted average of MAI and DAI in 2014	8,972 baht/head/month or 408 baht/head/day				

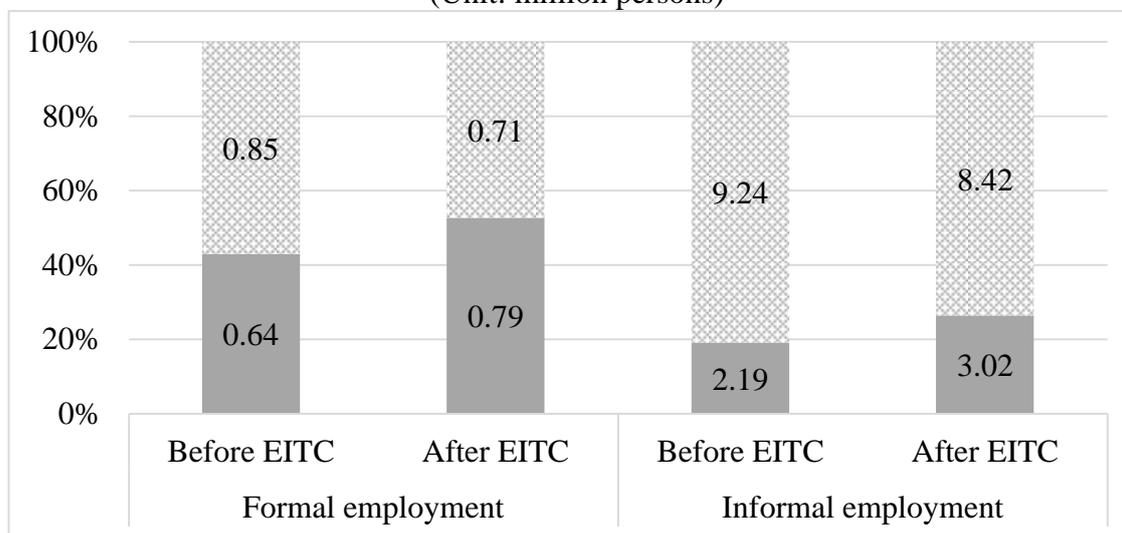
Source: Authors' calculation from SES 2013

²³ We presume that workers work 5.5 days per week, 22 days per month. This presumption means that workers should obtain AI without working overtime to allow them to spend time for family, childcare, religious activities or individual hobbies or pastimes.

²⁴ Data in this row is extrapolated from 2013 using the actual inflation rate as of 2014 at 1.3%.

The estimations of beneficiaries from our generous scheme are displayed in Figure 3, which shows that approximately 12.9 million people will be included, 1.5 million (11.6 per cent) of whom are formally employed, and 11.4 million (88.4 per cent) of whom are informally employed. The figure shows that EITC favours informally employed workers in achieving an AI of approximately 0.82 million, in comparison with only 0.15 million for formally employed workers (visible as differences in the solid bar before and after EITC). Although 43 per cent of total informally employed workers will be covered by the scheme, only 26 per cent can reach AI. Some cannot reach AI because they receive a low amount of transfer and are at either the first part of the phase-in range or the last part of the phase-out range. Additionally, some of the remaining 57 per cent of informally employed workers who are left out of the programme might have already reached AI as their earned income has been increased.

Figure 3: Number of beneficiaries who reached AI before and after receiving EITC (Unit: million persons)



Note: The solid bars indicate the number of beneficiaries who earned at least AI, and the dotted bars indicate those who earned more than AI.

Source: Authors' calculation from the SES (2013)

Subsequently, beneficiaries are suggested to join four supportive types of social protection scheme: (1) Article 40 of Social Security as the first choice, (2) Article 40 as second choice, (3) the National Savings Fund, and (4) a combination of Article 40 as first choice and the National Savings Fund²⁵. By relying solely on cash transfers, we find that 86.5, 83.8, 88.8 and 82.4 per cent of the beneficiaries who are informally employed workers can join the four supportive programmes, respectively. The government bears a high cost from these co-payment pecuniary policies.

4.2 Public Expenditure for First Implementation

Although the FPO estimates annual fiscal expenditure for EITC at approximately 55.6 billion baht (0.47 per cent of GDP or 2.32 per cent of fiscal revenue in 2013)²⁶, the calculation in Muthitachoen (2014) calculation is at only

²⁵ The second choice of Article 40 combined with the National Savings Fund is legally prohibited.

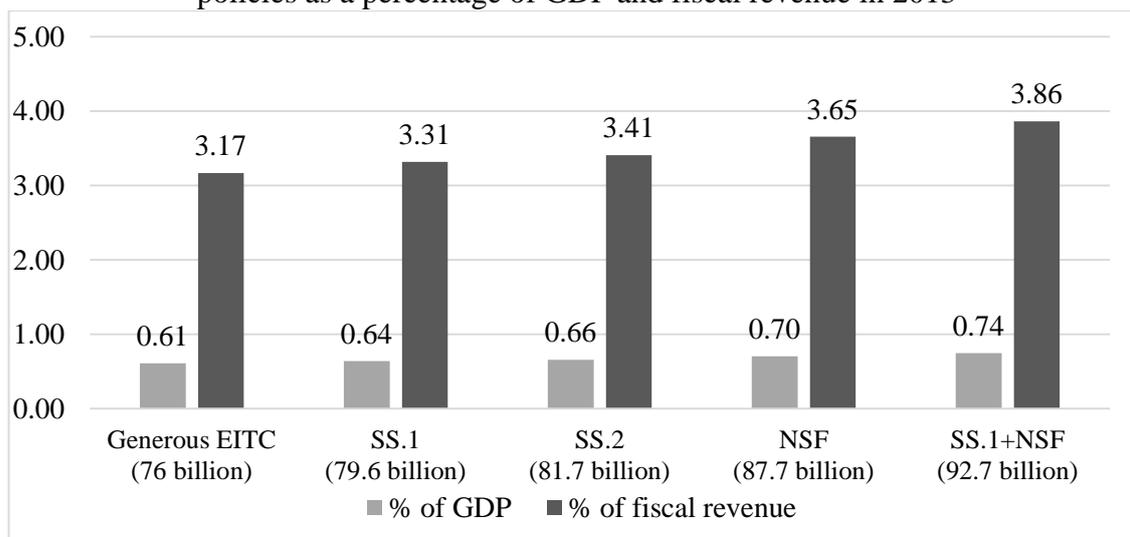
²⁶ FPO claims that the actual cost will be considerably low, but cannot provide a precise estimate due to a 'data management problem.'

approximately 27 million (0.22 per cent of GDP, or 1.13 per cent of fiscal revenue in 2013). Both estimations utilise the SES (2013) data sets, but with different and unrevealed approaches. So far, no consensus has been reached on the actual expenditure resulting from each author’s judgment. Our estimated expenditure for the FPO scheme is the lowest at approximately 21 billion baht (0.17 per cent of GDP, or 0.88 per cent of fiscal revenue in 2013). Although the causes of these variations cannot be unequivocally known (The calculation is highly sensitive.), we believe that each estimation has its inherent and sound argument.

We then step further to estimate the annual expenditure of our generous EITC scheme, which imposes a government cost of approximately 75,993 million baht per year and is mostly concentrated on informally employed workers who stay within the middle-income group (40,000–100,000 baht per year). Regarding the four supportive types of social protection that we expect informally employed workers to join, we assume that all informally employed workers will co-pay if their transfer is sufficient for annual payment. The assumption then portrays the worst-case scenario for government expenditure (Figure 4) as some informally employed workers might want to keep their transfer as disposable income or alternative private savings.

The current welfare scheme in Thailand is allocated after budgetary procedures, which means that we cannot explicitly pinpoint which source of fiscal revenue is explicitly funding which scheme. Therefore, justifying the feasibility or sustainability of the present scheme, or our proposed generous EITC is difficult. However, the work of Ananapibutr et al. (2014) attempted to accomplish this task by suggesting that EITC should replace particular overlapping welfare schemes that cost approximately 100,000–200,000 million baht per year. Ananapibutr et al. (2014) further explained that although such schemes should be gradually removed, other sources of tax should also be considered to support EITC, such as initiating capital gains tax. Considering all the possibilities mentioned, EITC, even generous EITC with additional costs for government co-payment pecuniary policies, should be feasible in short to medium term.

Figure 4: Estimated annual fiscal expenditure for generous EITC and other pecuniary policies as a percentage of GDP and fiscal revenue in 2013



Source: Authors’ calculation from the SES (2013)

4.3 Political Feasibility

For this section, in order to tackle the problem of policy feasibility in the political dimension, the basic concept of the median voter is involved. Assuming that all adults aged 18 and above are part of this population, all voters are sorted into those who benefit most and least from this policy. The earned income variable is used to determine the interest. Although earned income is not linearly correlated with the number of benefits, its use in determining interest is still safe because the beneficiaries are the poor and the disadvantaged and the rich who pay individual taxes.

A few hurdles exist in this study. Firstly, people older than 60 are not eligible but can vote even though most of them are at dependency age and may have neutral feelings towards the programme. However, EITC can favour their family members. Earned income distribution in Thailand is right-skewed (Table 8); thus, many of them can benefit from the programme. One contradiction to this argument lies in whether the EITC scheme can diminish or even replace the allowances of the elderly. In that case, the scheme may cause friction. Therefore, we leave the elderly out of our estimations for now as their political points of view are difficult to determine.

Secondly, earned income is either missing or at zero in many observations. If the income of workers is 0, they are not eligible to receive EITC. Some workers are not working. Therefore, determining the income of those who work is impossible. The data are cross-sectional. Hence, tracking the past income of workers is not possible.

Thus, we consider both scenarios where zero-income observations are included and excluded. The generous model is accepted in both cases because the median earned income falls within the EITC-eligible range. We may be able to draw a loose conclusion that this generous scheme is likely to be politically acceptable, but those whom we leave out of the consideration should be kept in mind.

Table 8: Median-voter earned income

Voters	Observation	Annual median earned income	Annual mean earned income
All voters	98,183	-	-
Aged 18–60	77,378	<u>71,700</u>	112,646
Aged 18–60 (zero earned income excluded)	62,693	<u>93,000</u>	140,686

Source: Authors' calculation from SES (2013)

5. Conclusion and Suggestions for Further Studies

We attempt to explore several grey areas in the Thai economy further and dig deeper to understand better the current circumstances of informally employed workers and the hardships and instability they face. Most informally employed workers, especially those who are own-account and contributing family workers, earn far less than an adequate, liveable amount. The situation of such workers is fragile as many of them are uninsured. In an emergency, they rely mostly on their payments or personal savings, which can lead to a financial breakdown. Although many national schemes are provided, both targeting informally employed workers and their ability to consistently co-pay remains problematic. By concretely analysing the data, we find that EITC, with AI as a benchmark, is one possible method for harmonising available government schemes. EITC with AI as a benchmark will affect a large number of people. Approximately 12 million people, most of whom are informally employed workers, will benefit from generous EITC if implemented. Despite the tremendous coverage rate, we

still draw the conclusion that the programme is likely to be feasible financially and politically at the first stage of implementation.

We humbly suggest an important consideration when discussing our limitations. First of all, this study imposes a strong assumption when incorporating the sampling unit of SES, initially a household survey, as an individual weight. The reason behind this is to identify definition, form criteria from a set of questions for informally employed workers and incorporate unearned income data, which are all measures inappropriate within LFS. Second, we also found probably small random errors in data input, such as working for 24 hours for seven days in some observations. Data collection and cleaning can be improved to ensure desirable statistical properties and accurate calculations. We only restrict ourselves to sensible, circumspect observations and try to clean the data in as straightforward a manner as possible.

This study offers much room for improvement and brainstorming. For example, if EITC is implemented, systematic data collection in such situations should be considered. Data collection design should be performed ahead of implementation to prevent tax misreporting and promote efficient transfer. Moreover, studies and analyses concerning estimating tax gaps are still insufficient and incomplete in Thailand. Such studies require a specific type of data collection system to address the issue and see how far we are from the full capacity of taxability. The tax gap analysis will also encourage long-term transparency. The government can then turn such marginal gains into policies promoting the well-being of the people.

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Appendix: Supplement Tables

Pecuniary Policies with Co-payment

Table A.1: Pecuniary benefits with co-payment of informally employed workers, in 2015

Policy	Benefits	Coverage	Management unit
Social security - article 39	Emergency sickness or injury, Maternity benefit, Invalidity benefit, Dead benefit, Child allowance benefit, Old age benefits	This scheme covers informally employed workers who satisfy all of these conditions: (1) contribute 432 baht per month to social security, (2) used to be a continuous contributor through article 33 (formally employed workers) for at least 12 months, (3) be an unemployed person for six months or less, and (4) do not get invalidity benefits when unemployed.	Social Security Office
Social security - article 40	Emergency sickness or injury, Invalidity benefit, Dead benefit, Old age benefits	There are two choices for benefit-holders. <i>Option1:</i> informally employed workers aged between 15 and 60 years old and contributing their income to social security at a figure of least 70 baht per month (government additionally co-contribute 30 baht per month), <i>Option2:</i> informal employed workers aged between 15 and 60 years old and contributing their income to social security at a figure of at least 100 baht/month (government additionally co-contribute 50 baht/month), One who chooses the first option will get three benefits including Emergency Sickness or Injury, Invalidity Benefit, and Death Benefit. However, the second option will give old-age benefits, additionally.	Social Security Office

Source: Social Security Office (2015)

Table A.2: Pension and saving benefits of informally employed workers, in 2015

Policy	Benefits	Coverage	Management unit
National saving fund	A voluntary pension scheme aims to promote saving for retirement, the pension's benefits are restricted to monthly pension payments only.	This scheme covers informally employed workers who contribute between 50 and 1,100 baht per month to the national saving fund. However, they cannot simultaneously contribute to social security, except in the case of the first option of article 40.	National Savings Fund Office

Source: National Savings Fund and Savings and Investment Policy Office (2015)

Non-pecuniary Social Protections

Table A.3: Healthcare benefits of informally employed workers, in 2015

Policy	Benefits	Coverage	Management unit
Universal healthcare	Many medical care costs are subsidized by the government.	All informally employed workers	National Health Security Office (NHSO)

Source: Health Systems Research Institute (HSRI) (2012) and the National Health Security Office (NHSO) (2015)

Table A.4: Training and skill development of informally employed workers, in 2015

Policy	Benefits	Coverage	Management unit
Skills development	The government provides skills training for workers including informal ones.	All voluntary registered participants including informally employed workers.	Department of Skill Development, Ministry of Workers

Source: Department of Skill Development (2014)

Table A.5: Free Fares for Bus and Train Transportation

Policy	Benefits	Coverage	Management unit
The free fare for Bus and Train Transportation	The government provides free fares for some public buses within Bangkok and some 3 rd class trains for people around the country.	All people including informally employed workers.	Ministry of Transport

Source: The Secretariat of the Cabinet (2014) The Secretariat of the Cabinet (2015)

Allowance for specific groups of people

Table A.6: Allowance for those who are in need of informally employed workers, in 2015

Policy	Benefits	Coverage	Management unit
Child support grant	In 2015, the programme provided informal workers benefits (400 baht per month for one year only)	Newborns whose birthdate falls during 1 October 2015 - 30 September 2016 under some conditions.	Social Security Office
Elder allowance	The monthly allowance varies by the age of recipients: 600 THB (USD 18.75) for those aged 60-69 years old, 700 THB (USD 21.87) for 70-79 years old, 800 THB (USD 25) for 80-89, and those 90 years of age and older receive 1,000 THB (USD 31.25).	Informally employed workers who are older than 59 years old.	Ministry of Social Development and Human Security

Source: Aiadpoung (2011), ThaiPublica (2011), Bureau of Children Affair (2015) and Office of the National Economic and Social Development Board (2015)

Table A.7: Credit access of informally employed workers, in 2015

Policy	Benefits	Coverage	Management unit
Lending for have-nots	Governmental banks provide low-interest rate loans or low requirements on collateral for some groups of people. For example, one credit for occupation support of Government Saving Bank (<i>Sarn Fun Su Ar Cheep</i>) is credit lent to individuals who want to start independent jobs. The maximum lending rate is not more than 50,000 baht; the lending rate is 12 per cent per year (1 per cent per month) ²⁷ , no collateral requirement and	Informally employed workers (employer) who are older than 20 years old and satisfy the specific criteria of the loan providers.	Government Housing Bank, Government Savings Bank, Bank for Agriculture and Agricultural Co-operatives,

²⁷ It is the rate which is below the market lending rate of business loan which does not require collaterals. In other words, this rate of Bangkok Bank, one of largely commercial bank in Thailand, since the 16th November 2015 is approximately 15.875 percent per year (http://www.bangkokbank.com/Documents/Loan/LoanRates_16Nov2015.pdf). These rate of Kasikornbank and Siam Commercial Bank, other two of largely commercial bank in Thailand, in the same period time are 18.87 and 19.82 respectively

	no requirement about the minimum monthly revenue of borrower.		
National village and urban community fund	Initial loan for creating jobs and enhancing social and economic development within villages. This programme also indirectly supports collective activities in various communes.	Those including informally employed workers that satisfy conditions which are set by the local board of village funds.	National Village and Urban Community Fund Office

Source: Government Housing Bank (2015), Government Savings Bank (2015), Thai Parliamentary Budget Office (ThaiPBO) (2015) and Bank for Agriculture and Agricultural Co-Operatives