A Critique of Precision Poverty Alleviation: Does China Approach Adequate Policy Tools?

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Abstract

China has achieved laudable progress in poverty reduction since its reform and opening in 1978 Its current precision poverty alleviation program may however encounter challenges and possibly even fail, if the intrinsic weaknesses in its design and difficulties in its implementation re not addressed soon enough. It is pointed out that perfect targeting is not impossible, personalized interventions will not solve structural problems and rapid interventions have little effects on chronic poverty or poverty trap. It is argued that extreme poverty in China cannot be eradicated once and for all by the end of 2020. As with many great goals, time overrun may occur. Some effective countermeasures must be in place to fend off the unfavorable consequences of that policy and to prevent the poor people from getting worse after 2020.

1. Introduction

Poverty as a mass phenomenon has been with us as long as the mankind itself. It most abundantly manifested itself with the emergence of early capitalism. Even the most advanced capitalism of the early 21c. has not been able to eliminate and/or eradicate it. Poverty has been and may remain with us for quite some time, in various forms and degrees. Organized interventions have been introduced at large scale since early sixteen century (Geremek, 1994). However, most of these interventions failed to achieve the expected results. One of the more dramatic examples of these interventions is the War on Poverty launched in the mid-1960s, in the United States.

In the 50 years since that time, U.S. taxpayers have spent over $22 trillion[1] on anti-poverty programs. Adjusted for inflation, this spending (which does not include Social Security or Medicare) is three times the cost of all U.S. military wars since the American Revolution. Yet progress against poverty, as measured by the U.S. Census Bureau, has been minimal, and in terms of President Johnson's main goal of reducing the "causes" rather than the mere "consequences" of poverty, the War on Poverty has failed completely. In fact, a significant portion of the population is now less capable of self-sufficiency than it was when the War on Poverty began. (Rector,Sheffield,2014)

According to the statistics given by Rector and Sheffield, although the failure of the United States in the War on Poverty might well be exaggerated considering the real living conditions of the poor in the United States, and despite of the problematic methods used by the U.S. Census Bureau in counting the poor, there were indeed a non-ignorable number of Americans who did still live in abject poverty by 2014 [2](Rector, Sheffield, 2014). Wealthy and highly developed as the United States is, it is still not capable of eradicating extreme poverty after a half century long bitter war against it. It is fairly safe to foretell the bleak prospects of most other battles aimed at eradicating poverty in other countries. However, there is one large-scale poverty intervention worthy of our close examination, the one that has been implemented in China since 2014 and is about to finish by 2020.

Having made spectacular progress in reducing absolute poverty since its economic reform dated back to 1978, China's achievement in poverty reduction has been generally well-received by the international community. China is regarded to have set an example for developing countries which are still wrestling with poverty. As Jefferson noticed in his e-primer *Poverty: A Very Short Introduc*tion: "In 1981, China's poverty rate was 88.3 per cent based on the headcount ratio at $1.90 a day (2011 PPP$). In 2010, this poverty rate was 11.2 per cent. This remarkable accomplishment was due in large part to rapid economic growth over this period. Thirty years of economic growth lifted over 700 million people out of extreme poverty in China" (Jefferson, 2018, p.103).

Chandy was also very impressed by China's achievement, "What the world achieved in the space of 200 years—the reversal from fewer than one in five people living above $1.25 to fewer than one in five living below that threshold—China managed in little more than twenty years" (Chandy, 2015).

While the key contributing factor to China's achievement is its continuous rapid economic growth since the reform and opening, China's success in poverty reduction may partially be attributed to the geographically targeted poverty reduction program first introduced in 1986, when 331 counties were identified as the key targets in the national development-oriented poverty-reduction programs (Zhang et al, 2003). In 2001, with the decrease of the rural poor, it was judged that the county was no longer the appropriate targeting unit; thereafter, the village took the place of the county as the basic unit of targeting, making the targeting more precise.

When General Secretary Xi took his office in 2014, almost all the available data indicated that the targeted poverty reduction programs in China had achieved brilliant

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[1] This is over $ 440 billion per year on average. Considering the war on poverty was brought to an end in the 1970s, we can have an idea about the intensity of financial investment in that program.

[2] In 2014, the official poverty rate in the U.S. is about 14%, and 1 in 70 of the officially poor is homeless at any given point during the year, and 4 percent of the officially poor are temporarily homeless during the year.

success. As an ambitious politician, Xi decided to go one step further to eradicate the absolute poverty in China completely by enforcing a radical form of targeted poverty reduction program, the so-called Precision Poverty Alleviation Program (PPA), in which the individual household or person is the targeting unit. In terms of the degree of precision, this program is undoubtedly the final version of poverty targeting. However, is this radical policy a brilliant move or just a trillion RMB blunder? There are different opinions. While most domestic institutions and academics in China seem to believe that Xi's policy drive to eradicate absolute poverty by 2020 is likely to succeed considering its heavy political and financial capital investment, there are many different voices, especially from outside China. For example, Taha Kehar expressed his skepticism about the prospect of China's current poverty eradication policy.

China's President has set 2020 as the deadline to iron out the challenges posed by poverty in the country. It is part of the country's centennial goals and eight main strategies have been adopted to put poverty alleviation into effect. Most of these measures are, at best, idealistic and there is a strong likelihood that they will not reap the desired results. (Kehar, 2018)

However, Kehar's attacks focus mainly on the technical aspects of the measures that China plans to take to fight poverty; it seems for him that China might be able to achieve its goal if it could take correct measures. While the deadline to eradicate the poverty in China is coming near, can Xi achieve his goal to make China the first major country free of extreme poverty? Although the answer may seem quite clear for most serious development economists, we need to work out solid reasoning to show why the newest and ultimate version of targeted poverty reduction program will not work in spite of China's so many years of successful experiences and unprecedented commitment from the top. If PPA fails to achieve its goal at last, what are the implications of this failure theoretically and practically? What shall we do to neutralize the negative effects of PPA's failure? We will tackle these problems from both the theoretical side and the practical side; but before we conduct our analysis, we need to take a close look at the various configurations of this precision poverty eradication program.

2. The Basics of China's Poverty Reduction Program

China's current poverty reduction program is termed in Mandarin as "Jingzhun Fu Pin (精准扶口)", which means literally "Precision Poverty Aid[3]". PPA was used publicly first by Xi in 2013 and it took shape as the umbrella term for the national poverty reduction strategy including a series of poverty reduction policies in China from 2015 on.

PPA is very special because it has many outstanding features.

▪ All the absolutely poor people in China will be identified and their information will be registered in a database (Poverty-Household Registry), and not a single impoverished person would be forgotten. This requirement defines the scale of the program. When PPA was launched in 2014, over 89.6 million impoverished people were registered.

▪ Poverty reduction resources will be targeted precisely to those who are officially identified as the poor and whose information is registered into the database. While the total sum of money put into poverty reduction has been increased sharply since 2015, some old poverty reduction programs which were thought not consistent with PPA were ended.

▪ The measures to be taken to help each impoverished person (or household) to graduate from poverty would be customized or personalized according to the specific situation of that person (or household). PPA is a comprehensive program including a series of measures which can be used to help the poor to escape poverty. At the national level, 8 categories of measures have been devised, including developing industries such as tourism or e-commerce, to help villagers find a job or sell their products to larger markets after occupational training. People who live in geologically hazardous areas prone to earthquakes or landslides, or are based in remote areas, will be relocated. The elderly and infirm are entitled to get social security payments.

▪ The responsibilities of the people who are assigned to help some poor to graduate from poverty and the accounting procedures are precisely defined. To realize the goal, China has established a 5-level responsibility pattern that covers provinces, cities, counties, townships and villages.

▪ The commitment from the top leadership to PPA is extremely high. In 2017, Xi made the following remark on behalf of the newly elected top leadership of the Communist Party of China (CPC): "In 2020, we will establish a moderately prosperous society across all metrics. This is the society to be enjoyed by each and every one of us. On the march towards common prosperity, no one must be left behind. We will mobilize the whole Party and the whole country in a resolute push to deliver on our pledge and eradicate poverty in China"[4]. In his 2018 New Year speech, Xi vowed again to all the Chinese people "It is our solemn commitment to lift all rural residents living below the current poverty line out of poverty by 2020. Once made, a promise is as weighty as a thousand ounces of gold"[5]. The intensity of the support is unprecedented in terms of both money and people. With regard to financial investment, in 2016, the special funds for poverty alleviation allocated by the central and local governments exceeded 100 billion RMB for the first time, including 66.7 billion RMB from the central government, an increase of 43.4% year on year and

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[3] In the newspapers, magazines and academic literatures, we can see different wordings for this targeted poverty intervention policy, such as "targeted poverty alleviation", "precision poverty relief", and "precision poverty alleviation" among others. It seems Chinese official media such as China Global Television Network prefers to use the term "precision poverty alleviation", which can also be shortened to PPA.

[4] The full text of this speech is accessible at https://news.cgtn.com/news/30516a4d32597a6333566d54/share_p.html, retrieved on 12th February, 2019.

[5] The full text of this speech is accessible at http://www.china.org.cn/china/2017-12/31/content_50181054.htm, retrieved on 12th February, 2019.

49.3 billion RMB from local governments, a year-on-year rise of 56.1%. The central government requires that there should be a resident task force in every poor village and person-in-charge for every poor household to achieve full coverage. China has dispatched a total of 775,000 officials to station in villages for a period of 1 to 3 years. The Organization Department of the CPC Central Committee has carried out Party building to promote poverty alleviation by dispatching 188,000 officials to serve as "the first secretary" in poor villages and villages with weak and lax grassroots Party organizations. The government has also motivated businesses, individuals, NGOs and even the military to carry out PPA relief plans. Wealthier provinces are being designated one or several less-developed provinces for special guidance and assistance. (Tan, 2018).

▪ All those officially identified as poor and got registered in the database will be lifted from poverty by 2020 and the absolute poverty will be eradicated in China by then.

The first and foremost feature of PPA is its targeting precision. In the literatures of poverty alleviation, the concept of targeted poverty alleviation is not new; however, "target" is usually used in the context of "geographical targeting" or "group targeting (categorical targeting)" and rarely used at individual level. In contrast, PPA pulls targeted poverty alleviation to its extreme by aiming at each and every poor at individual level and thus can be viewed as the most radical form of targeted poverty reduction. As a bodacious social experiment with blanket coverage in a huge country, is PPA superior or inferior to the previous versions of targeted poverty alleviation programs in theory or in practice? Why?

Another outstanding characteristic of PPA is that it has a clear and precise deadline to eradicate extreme poverty in China thoroughly and completely. It is true that almost every poverty intervention program is related to a definite time frame. But, for such an ambitious program like PPA, five years are extremely short in comparison with, for example, the first Millennium Development Goal of the UN, which aimed to halve, between 1990 and 2015, the proportion of people whose income is less than $1.25 a day. Considering the commitment is very high but the time is very limited, what is the prospect of this program? If this program is bound to fail, what can be done to contain the possible social cost of the failure of this program? All these questions are worth our most serious studying.

It is also interesting to compare PPA with the War on Poverty in the US launched half century ago. We notice that these two programs share a host of commonalities.

▪ Both programs are targeted.

▪ Both programs are high-profile. The State Council of China has set October 17 as the Poverty Alleviation Day of China and set up national poverty alleviation awards, including progress award, contribution award, dedication award and innovation award, to honor poverty-relief models while increasing publicity to win public support.

▪ Both programs are implemented in a campaign-like way.

▪ Both programs take customized approach to poverty due to different causes.

▪ Both programs aim to eradicate absolute poverty once for all in several years.

▪ Both programs are sophisticatedly designed and have similar rationales behind them, as both intended to help the poor to help themselves, as the propaganda of the War on Poverty put it: "(provide) doors, not floors".

▪ Both programs take some labor-intensive measures at the community level in implementation, for instance, both dispatched professionals to go into communities to help the poor on an individual basis.

▪ Both programs use the same rhetoric. In 1964, President Lyndon Johnson declared unconditional War on Poverty with a vision of a "Great Society"; in 2015, the State Council of China issued the Decision on Winning the Fight against Poverty in order to "finish building a moderately prosperous society in all respects".

While we all know the ending of the War on Poverty is that the poverty won. Can we anticipate a different result of PPA? After all, PPA has its own special features as we have discussed above.

3. Theoretical Flaws of the PPA

The prerequisite of the PPA is that each and every impoverished individual can be identified (zero exclusion error) at reasonable cost and without including many non-poor (low, possibly zero inclusion error; otherwise, it is not precise.). However, this prerequisite simply does not exist.

While there is worldwide agreement on poverty reduction as an overriding goal of development policy, there is little agreement on the definition and measurement of poverty. There are at least four different approaches to the definition and measurement of poverty - the monetary, capability, social exclusion and participatory approaches. These approaches have different theoretical underpinnings and involve various judgments. Different methods based on these approaches will point to different people as being poor for targeting. Empirical work in Peru and India shows that there is significant lack of overlap between the methods with, for example, nearly half the population identified as in poverty according to monetary poverty not in capability poverty, and conversely. This conclusion is consistent with previous studies. Obviously, the definition of poverty matters a lot for poverty eradication strategies (Laderchi et al, 2003). In practice, much more definitions of poverty have been used. Aldi Hagenaars and Klass de Vos (1988) used eight different definitions of poverty to determine who is poor, using a 1983 Dutch sample of 12,000 households. They found that the percentages of poverty based on these various definitions varied widely, and the choice of poverty definition had far reaching effects on social policy. Lu (2012) used four approaches to poverty assessment, namely, the Monetary Approach, the Participatory Poverty Assessment, the Multidimensional Poverty Indicators and China's Official Poverty Identification method, to identify the poor from 473 households in rural Yunnan and found that the overlap and correlation coefficients between approaches was very low.

Qizilbash (2003) distinguished between two types of vagueness concerning the definition and measurement of poverty, namely, horizontal and vertical, with the former

describing the set of admissible dimensions and the latter describing the critical level in a particular dimension. Clarke and Hulme (2010) established time and in particular duration as the third analytical component besides depth (severity) and breadth (multidimensionality) for understanding poverty. They named this aspect the temporal vagueness of the concept of poverty.

The debates around the concept of poverty and the vagueness nature of the definition and measurement of poverty mean that the precision that has been boasted by PPA can never be reached. Any effort aiming to identify the poor precisely is bound to come to a regrettable failure. What makes things worse is that poverty as a concept is not only vague but also complex in terms of the requirements of its operationalisation. This complexity lies in the fact that poverty is a multi-dimensional and social phenomenon (Neff, 2013). Trying to reduce different aspects of poverty to money alone will lead to a big loss in our understanding of the nature of the concept. Besley and Kanbur (1991) posited that perfect targeting was unrealizable because of three factors:

▪ The cost of administration and data collection.
▪ Individual responses and incentive effects.
▪ Considerations of political economy.

The first factor is especially relevant to developing countries like China, where most required data are simply not available and the program administrators and potential benefits claimants are not experienced to acquire the very limited available data. The second factor can be a big concern when the interests at stake are high. The potential claimants might well be motivated to manipulate the information they report in order to be eligible for the poverty alleviation programs, this is especially true when it is not easy to check the accuracy of the information. The political economy of a public policy in a socialist country like China reveals itself in a way different from that in a typical capitalist country. In China even when many people do not support a policy, chances are that this policy can still be approved by the government and get implemented as long as it is the will of the CPC. However, as is the case as anywhere else, if a policy is not supported by the majority of the people, the barriers will be huge in the process of its implementation. Fine targeting risks losing the support of the majority who are excluded from the benefits programs.

PPA takes a monetary approach and sets the poverty line at 1.9 dollar (in 2011 PPP dollars) income per day per person. The central government of China ruled in 2015 that rural residents with an annual income of less than 2,800 RMB [6] were living in absolute poverty. This artificial designation seems to have sidestepped the horizontal vagueness and vertical vagueness problem, but only superficially, since this ostensible solution will cause a series of troubles at later stages of implementation, which we will detail in next section. For now, it is suitable to add that, just as well-

being is multifaceted, poverty is a multidimensional phenomenon which is beyond the summarizing capacity of a single monetary indicator. Money-centric approach to the measurement of poverty is especially problematic when there is a market failure or the specific market for some goods or services simply does not exist. This happens to be the case in China when the pricing mechanisms in many markets are disputable and many public services such as quality education, hospital, or even clean water are simply not accessible in some remote rural areas.

The Nobel laureate Amartya Sen made the following comments about pursuing precision in order to be precise.

A formal expression can be extremely precise without being at all a precise representation of the underlying concept to be captured. In fact, if that underlying concept is ambiguous, then the demands for precise representation call for capturing that ambiguity rather than replacing it by some different idea – precise in form but imprecise in representing what is to be represented. (Sen 1989: 317)

Moreover, the temporal vagueness of poverty can not be tackled as easily as in the case of horizontal and vertical vagueness by artificially designating some observation time points or periods. It is difficult to determine how often and for how long we must observe so that we can get enough data to distinguish the poor from the non-poor, and to distinguish the chronic poor from the transient poor. One may tend to think that transient poverty is not as serious as chronic poverty, but transient poverty can also cause irreversible effects on the physical stature and cognitive ability of people like chronic poverty, especially for those vulnerable groups of people such as pregnant women or children. The real problem is that the identification of the transient poor is much more evasive than that of the chronic poor, since sporadic measurements are likely to fail to identify those transient poor, who happen to be non-poor at the moment or in the period when the measurement is taken. Clarke and Hulme (2010) made the following comments on the increasing use of panel data to examine whether poverty is a transient or persistent experience.

▪ To operationalise time they assume that a household that is poor at t_1 and t_2 has been poor for all of the intervening period: for many households this may be an invalid assumption.

▪ As both income and consumption are measures that can fluctuate greatly over short periods of time, studies based on these indicators are likely to make poverty appear to be a relatively transient experience. Measures based on a more holistic concept—literacy, nutritional status, housing quality—would produce a quite different picture.

▪ The considerable measurement error associated with income and consumption, at both t_1 and t_2, amplifies the degree to which poverty appears to be a transient and stochastic phenomena rather than a chronic and structural phenomena.

Clarke and Hulme's comments are highly relevant in China, since even panel data is a luxury which a poverty reduction practitioner can only dream of. Since the vast majority of the absolutely poor people in China live in the

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[6] According to purchasing power parities (PPP) data published on the website of OECD, this is equal to 2.21 dollar in 2015. The PPP data can be accessed at https://data.oecd.org/conversion/purchasing-power-parities-ppp.htm.

rural areas[7], where subsistence production is an important part of their income resources, evaluating their incomes requires imputing the values of their produces. This imputation cannot be done precisely because the price of the produces fluctuate frequently, and a trivial error may be of vital importance to the person in question, given the fact that the task is about identifying the poorest among the poor.

With all those problems discussed above, if we want to target the poor at individual level (to achieve perfect targeting) at all cost, is it doable? From an instrumental point of view, this is still impossible. In general, there are several different mechanisms we can use to target the poor, but none of them can ensure perfect targeting. A report (Devereux et al, 2015) classifies and analyses targeting mechanisms under six "pure" categories and one "hybrid" category:

1. Means testing (including unverified means-testing): based on an assessment of income, assets or wealth of applicants.

2. Proxy means testing: based on a weighted combination of characteristics that are believed to be highly correlated with wellbeing or deprivation.

3. Categorical targeting: based on characteristics of interest to policy-makers, which might or might not be correlated with wellbeing or deprivation.

4. Geographic targeting: based on location or residence (e.g. an area affected by a hazard, or a district with high poverty prevalence).

5. Community-based targeting: based on an eligibility assessment performed by the community where a program is implemented.

6. Self-targeting: based on voluntary participation or self-selection.

7. Multiple mechanisms: where more than one mechanism is used to identify program participants, either simultaneously, sequential or in parallel.

Means testing is the most straightforward and most promising mechanism to target the poor precisely. However, assessing and verifying income is virtually impossible, especially in developing countries where employment (especially that of the poor) is irregular, where there is a substantial part of the income comes in the form of subsistence production and where the definition of a household is problematic. Evaluating the assets or wealth owned by a household is possible to some precision but the cost can rise exponentially in order to be more precise.

Proxy means testing is based on the correlation between observable and identifiable variables and poverty. Since correlation is based on statistics, it generally does not apply to individual analysis. As Rachel Sebates-Wheeler put it, *"Even in cases in which a proxy, such as a disability or asset ownership, does correlate with income or consumption poverty, the blueprint implementation of a social protection program for the identified population still does not account for heterogeneity within that population, and this*

shortcoming can strongly undermine the achievement of program objectives." (Rachel Sabates-Wheeler, 2018)

While categorical targeting and geographical targeting do not target the individual, community-based targeting and self-targeting focus mainly on the process rather than on the cutoff criterion of the targeting. Both mechanisms have their own drawbacks and can not achieve the precision that PPA requires. For example, in community-based targeting, the social aspects of the poverty often come to the fore. If somebody is unpopular in the community, she or he might be excluded from the list of candidates at first round discussion. Sometimes the community would rather to distribute the benefits of the targeting program equally to everyone in the community in some way. The rationale of self-targeting is the poor people behave differently from the non-poor in some aspects, and this behavioral difference can be used to recruit the real poor into the program while filtering out the non-poor. Generally speaking, a well-designed self-targeting works, sometimes even satisfactorily, but of course, it does not identify the poor precisely. Using multiple mechanisms in one program can enhance the precision of the targeting with higher administrative costs, but it can not achieve perfect targeting as well. As such, even the strongest supporters and advocates of targeting recognize that its accuracy will never be perfect. Due to information gaps and insufficient data to define the poor, precise targeting cannot be achieved. Misreporting may also lead to exclusion and inclusion errors (Dutrey, 2007).

What is more, precise targeting by monetary measure is actually meaningless. Sen (1987) discusses the relations between various approaches of wellbeing which Muellbauer (1987) visually presents in the following graph (figure 1).
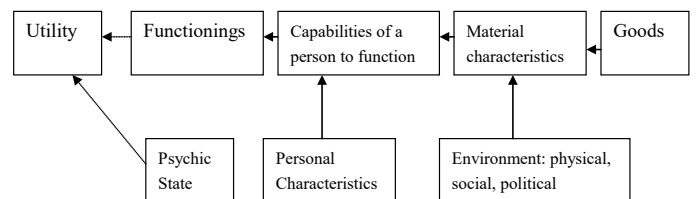

Figure 1: Utility, functionings, capabilities and their sources
Source: Muellbauer 1987.

While the final determinant of poverty (or wellbeing) lies far on the left, i.e., the utility, the monetary factors are simply missing in the graph. The dotted lines are used to denote Sen's preference for functionings and capabilities than utility as a measurement of wellbeing. Gunewardena (2004) explains that if one were to include income in that figure, it would be to the right of commodities, and a corresponding box in the lower row would include prices (income, together with prevailing prices, determine the amount of commodities that can be consumed). An expanded graph based on Sen's original idea and Gunewardena's explanation is given below (figure 2). This figure clearly explains the nature of poverty.

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7   The urban poor have been eradicated officially by the introduction of Dibao in urban areas.
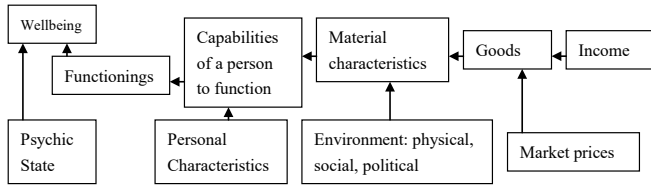
Figure 2: The determinants of wellbeing

Figure 2 systematically demonstrates the nature of poverty. In Sen's opinion (Sen, 1992), the relevant concept of poverty in income space has to be inadequacy (for generating minimally acceptable capabilities and functionings) rather than lowness (independently of characteristics). One can not measure inadequacy with a clear-cut poverty line which is designed to measure lowness. To be fair, although there are always debates about how to count the poor, such as the debate between Reddy, Pogge on one side against Ravallion on the other side (Anand et al, 2010), the introduction of the poverty line is meaningful in that this criterion helps us to count the poor in any given region in any given period. In some sense, the poverty line is more of macro economy indicator than micro economy indicator, where a large population can level off multiple fluctuations of various moderator variables in figure 2 to make it useful. Of course, even when the poverty line is used at macroeconomic level to estimate global poverty, results may vary substantially (Anand et al, 2010, p 4). Of course, some differences between different sources are tolerable for most purposes. However, each tool has its limitations. One obvious limitation of the poverty line is that it cannot be used to distinguish the poor on an individual basis. With a critical judgment like to be or not to be, errors are completely unacceptable for the involved subjects in the case of precise poverty alleviation.

It is now almost a common sense that poverty is not equal to lack of money. In essence, lack of money is neither the basic feature nor the final cause of poverty. Instead, lack of money is only a frequently used proxy of poverty. The reason why monetary approach is the most popular approach in poverty studies is nothing but money is the most convenient (but not the most precise) measurement to study poverty. Since a constraint in income or consumption by a given poverty line is only an imprecise proxy of poverty, it makes little sense to target poverty precisely defined by a monetary indicator.

Because of the intrinsic vagueness and complexity of the concept of poverty, the effort to identify the poor precisely can result in nothing but false precision. Hence, the precision which characterizes PPA can be nothing more than a political rhetoric which cannot stand scientific examination. If precision is taken to be the overriding feature of China's current poverty reduction policy, that policy must be ill-designed.

What is more, even if a perfect targeting could be achieved, it is not desirable. In theory, there is a critical point of targeting precision beyond which targeting will result in the loss of efficiency. There is always a tradeoff between leakage (inclusion error) and undercoverage (exclusion error) in poverty targeting. While estimates of optimal degree of targeting are rarely available, it seems that the optimal point should be closer to no targeting at all (a universalistic approach) than to a perfect targeting (degree of targeting=1).One rationale behind targeting is to give the poor more help with given resources by controlling the leakage to the non-poor. However, control of the leakage will inevitably leads to the rise of undercoverage, which is morally a big evil even less desirable than larger leakage, especially in the case of absolute poverty with very low poverty line. This is why a coarse targeting like geographical or categorical targeting is usually more desirable than a fine targeting based on means test not only economically but also morally. Some empirical evidences support this statement. Studies showed that, once administrative costs allowed for, relatively simple forms of targeting such as geographical targeting or categorical targeting dominate the alternatives in performance (Ravallion, 2007, Coady et al, 2004). Moreover, some poverty reduction measures are economically efficient only when they are taken at large scale. Remarkable economy of scale exists in many poverty reduction projects, for example, the improvement of infrastructures like introduction or expansion of irrigation systems. The granularity of the use the poverty alleviation funds would crowd out the spending on large projects so that the economy of scale will suffer and the loss of efficiency will result.

Furthermore, the monetary approach of PPA does not serve the general purpose of building "a moderately prosperous society in all respects (MPSAR)" best. MPSAR is a concept bearing distinctive Chinese characteristics, which refers to a society with a stronger economy, greater democracy, more advanced science and education, thriving culture, greater social harmony, and a better quality of life. Generally speaking, MPSAR is a Chinese version of human development ideal. Although MPSAR is somewhat different from some more popular human development ideals, it is also multidimensional and involving many aspects of multidimensional poverty. Xu (2009) set up the "Statistical Indicator System of Building a Moderately Prosperous Society in all Aspects" also known as "System of Xiaokang (a Moderately Prosperous Society) Indications" to measure China's progress and monitor the advancement of building a Moderately Prosperous Society. This system covers six areas including economic development, social harmony, quality of life, democracy and law, culture and education, resources and environment with 23 indicators in total, among which indicators concerning health and education are highly relevant to poverty. It is strange that PPA concentrates only on the monetary aspect of poverty and fully ignores other aspects of poverty which are also parts of the indicator system of MPSAR. Precision in this manner is a waste of resources if not ridiculous.

Finally, the globalization of poverty as a social phenomenon makes eradicating poverty in one country even more difficult. The success in eradicating extreme poverty within

only some countries is unstable at most. Extreme poverty can move across the borders through migration as well as industry relocation in the process of globalization. Eradicating poverty first in a developing country like China once and for all is naïve both economically and politically.

By the way, the timing of PPA is also dubious. One consideration of targeted poverty alleviation is making more efficient use of limited poverty-fighting resources, but this is not the case of PPA. PPA was first proposed and got started in 2013. At that time, China's economic growth is still very strong, and resources were not a big concern for the newly formed central government. In fact, the introduction of PPA is in parallel of a remarkable increase in the input of governmental poverty fighting resources. In 2016, the special funds for poverty alleviation allocated by the central and local governments exceeded 100 billion RMB for the first time, including 66.7 billion RMB from the central government, an increase of 43.4% year on year and 49.3 billion RBM from local governments, a year-on-year rise of 56.1%[8] (Tan, 2018). It is quite obvious that the design of the policy prioritizes short-term effectiveness than long-term efficiency. What Xi wants is a quick-win, to end the absolute poverty in China with one single strike within his term as the leader of the Communist Party of China[9] (CPC). The new government needs a remarkable achievement to show its superb leadership art as well as its smooth governance mechanism. It is clear that the start point does not justify the choice of targeted poverty reduction program to fight poverty, let alone the use of its most radical form.

4. Conclusion

China might not eradicate absolute poverty as defined by US$ 1.90 a day by 2020, but it could nonetheless declare a victory of PPA. It will state absolute poverty has been eradicated in China for the first time in its history and the victory is a glorious achievement in the history of mankind. The poor people left behind by PPA whose scale will be a secret would well be worse off, as many poverty reduction funds are withdrawn. The appearance of a large number of new precariat will be a new threat to the security of the society.

As the finish of PPA comes near, it is too late to take any corrective measures to lead the program to a better result. However, it is advisable that China begin to devise some well-grounded strategies to handle the problems after PPA is finished, so that the social cost and unfavorable consequences of the ill-designed policy could be minimized and the poor, the precariat and the society as a whole will suffer least.

From a practical perspective, China should update its poverty line and initiate new poverty reduction programs as soon as the victory of PPA is declared rather than leaving a blank for poverty reduction initiatives. It is politically

wiser to replace the old policy with new policy as soon as possible than debating over the goods and bads of the old program. It is hard for the politicians to admit their (not their forerunners') blunders publicly, but they are likely to embrace a new initiative in the same field which is helpful to make up their unwise decisions in the past. As China is already an "upper-middle-income" country, it will face minimal obstacle to adopt a new poverty line at $5.50 (expressed in 2011 PPP U.S. dollars) a day set by the World Bank as additional poverty line for "upper-middle-income" countries in 2017. Fighting the poor with a threshold at $5.50 will surely pose a big challenge for China, while the poverty scale must be very large and the geographic distribution of the poor will no longer concentrate in rural areas.

Truly independent organizations should be formed in China to take some responsibilities in poverty reduction programs as soon as possible. Up to now the poverty reduction has been monopolized by CPC. Although some academic institutions, philanthropic foundations, brain banks take the form of NGOs or not-for-profit organizations, they all operate under the leadership of CPC. When the formulation, implementation and evaluation of the strategies are all performed by one party, the real effectiveness and efficiency of the strategies are hard to materialize. Nowadays, some grassroots independent organizations in the field of poverty reduction are emerging, but there is still a long way to go before these organizations can get legal status and adequate financial funds to prosper[10].

Structural reform should be initiated as an ultimate weapon to eradicate poverty. The inequality in China's distribution system has long been a big issue. Without a structural reform in its distribution system, no poverty alleviation effort can eradicate poverty completely, as the distribution system will continue to produce poverty. Minsky (1965) pointed out that without tight full employment, any poverty fighting program can only redistribute poverty rather than eradicate it. However, over half a century after, it seems more and more difficult to create a full employment society. As such, a universal basic income proposal seems more realistic than the creation of full employment. As the economy slows down and the rise of AI would make many white-collar workers redundant, it might be a viable solution for China to introduce a universal basic income program as an updated version of Dibao[11] that has been in place for many years in China. The targeting precision of Dibao is notorious partly because of corruption and bureaucratic failings. Dibao fails to reach 71% of poor households, while 40% of recipients have incomes above the income threshold for eligibility (Ravallion 2007).A survey conducted by the World Bank and a study conducted by Ben Westmore of the OECD both found that the inclusion error and the exclusion error of dibao were could be terri-

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[8] According to the data from the Ministry of Finance of China, the central government has allocated over 106 billion RMB to subsidize poverty reduction in 2018, an increase of 20 billion RMB, or 23.2% over 2017.

[9] CPC is also known as CCP, the Chinese Communist Party.

[10] One of our authors is working to organize an independent association of academics who work in related fields of poverty reduction, which will be affiliated with Academics Stand Against Poverty (academicsstand.org) as an independent chapter.

[11] Dibao was first introduced in urban Shanghai in 1993, and by 1997 a nationwide Dibao system has been established.

bly high[12] as 90% and 75% (*The Economist*, 29 Apr. 2017). Meanwhile, China's spending in dibao in terms of a percentage of its GDP is a mere 0.2%, far below comparable programs elsewhere, for example, Indonesia's 0.5%. If China takes a universalistic approach, all these flaws can be corrected.

Desai (2015) infers that the last mile in poverty reduction is more likely to be achieved and sustained through universal social policies that garner broader political support by including the non-poor as beneficiaries. That is especially true in fragile states, where targeting may exacerbate social tensions, whereas universality can support the goals of nation building and social cohesion.

From a theoretical perspective, the huge spending of PPA can and should become a valuable heritage for the international society to study from various disciplines such as poverty reduction, public policy, development economics, and political economy, among others.

A more balanced way to evaluate poverty reduction program need to be developed which may take the many trade-offs in poverty-fighting into consideration, such as the trade-off between current welfare and vulnerability to various risks in poverty intervention and the trade-off between under-coverage and leakage in targeting. In order to help the poor to escape poverty, financial institutions lend them money to encourage them to raise farm animals or plant cash crops. While these production activities offer the rural poor opportunities to earn extra money, they expose them to high risks simultaneously and make them more vulnerable to adverse environments. Since it is immoral to encourage the poor to take risks, an indicator needs to be worked out to reflect risk-free return of an intervention. While there is no controversy that under-coverage and leakage should both be taken into consideration in evaluating a targeting program, how to integrate these two indicators into one is worth studying. Intuitively, the complex indicator might be in the form of the product of the leakage rate and under-coverage rate to the power α ($\alpha>1$). The question to be answered is how large should α be?

It would be extremely interesting to compare PPA with America's War on Poverty in 1960s. Plenty of studies have been done on America's War on Poverty since 1960s. The same will happen to PPA in several years. For now, it is important to record genuine data in relation with PPA. To conclude, PPA may not eradicate extreme poverty entirely in China by 2020; and if extreme poverty can be eradicated in China one day, precise targeting may not be the most optimal approach or way to handle it as shown above.

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[12] The inclusion error and the exclusion error can both reach as high as 90% as recorded from 2007 to 2014 in different regions. Targeting (or, more precisely, mistargeting) with errors so high is worse than no targeting at all considering the administrative costs.

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