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SHORT NOTE

TOLERANCE FOR INEQUALITY: HIRSCHMAN'S TUNNEL EFFECT REVISITED

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Abstract: Along the path of economic development, advancement of some groups naturally generates economic disparity in society. The concurrent presence of both winners and losers invariably give rise to the psychologically economic question of how the losers perceive and respond to the benefits of development. The 'tunnel effect' proposed by Hirschman provides valuable insights for understanding the changing tolerance of economic inequality in the process of economic development. This paper critically discusses this proposition, reviews the related literature, and provides possible extensions. © 2018 John Wiley & Sons, Ltd.

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1 INTRODUCTION

The process of economic development creates both winner and loser. In a seminal paper published in 1973, Albert Otto Hirschman discusses, in the early stage of development, when income inequality among the different classes, sectors, and regions tends to rise, why society continues to tolerate inequality. Even though this paper has not received due attention in recent years, it provided valuable insights for the contemporary debate on increasing inequality both in and among countries as a result of the ongoing process of economic globalization. The purpose of this note is to summarize the key insights of the paper and to suggest some extensions.

The key proposition of Hirschman's paper is that people become tolerant of inequality provided they anticipate that the income gap will fall later, and otherwise will no longer stand

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for inequality. Hirschman uses a situation of a traffic jam in a two-lane tunnel to explain how people respond to inequality. Suppose, in a traffic jam, people are stuck in the left-lane and realise that no one cannot move for a while. Soon, they see that the car in the right lane starts moving gradually. They are optimistic about this traffic jam because they know that they can move soon. Although they cannot move now, they are still happy because of the positive attitude towards the future movement. This initial gratification is known as the tunnel effect.

However, at the end, if it is only the car on the right lane that can move, people on the right lane feel discontent. They start being furious and feeling it is unfair, and they want to do something to correct this injustice. This can lead to a social movement through either march or mob. The government then may need to use its coercive powers to restrict participation and cease this social upheaval. Additionally, Hirschman portrays the scenario when people see other people are worse off. If one's friends or neighbours get unemployed instantly, Hirschman suggests that people will not be happy but anxious instead. It is 'the tunnel effect in reverse'. When people see others fail, they are worried that they will be the next victim.

Hirschman also figures out several factors affecting the tunnel effect. He states that the tunnel effect will be strong if the group that does not advance (left-lane car) can empathise with (understand the situation well of) the group that advances. Thus, two groups (people in the left-lane car and right-lane car) must not be divided by impassable barriers. In this case, class matters. If several different classes get involved in the same growth process, the tunnel effect will still operate from unevenly economic growth. In a segmented society, economic advance with one particular ethnic or language group/one member of a particular religion is not likely to bring the tunnel effect to those who are left behind. They will be convinced at the beginning that this growth is unfair, and some certain groups of people exploit them. They expect to get worse off, since the beginning, in terms of relative income. Consequently, a high degree of coercion to control political instability is relatively high, compared to a fairly unitary society. In a homogenous society where resources are owned domestically, tolerance for income inequality tends to be large because there is no language, ethnic or other systematic barriers that can keep people with a stagnated growth from understanding the situation of better-off people. However, Hirschman suggests that this leaves a fearful statement 'The greater the tolerance, the greater is the scope for the reversal that comes once the tunnel effect wears off' when inequality is not corrected in time. National homogeneity is defined regarding static characteristics, for example, the unity of race, language and religion.

Lastly, Hirschman comments that in the society without the experience of sustained growth, when one group advances while another group remains constant, there are two possible results. If available resources have not increased, group A will suffer as B rises. If some windfall gains have expanded the total resources, group A will get a proper share of this windfall soon. Thus, the result of the utility among people also depends on how resources grow and distribute.

2 THE LITERATURE ON THE TUNNEL EFFECT

In this section, the literature related to Hirschman's tunnel effect are discussed. The studies range widely from economics to psychology. I divide this section into two parts based on types of the data used: cross-country analysis and country-specific study. Among the studies using cross-country data, several studies find that people are less satisfied when income inequality is high (Alesina, Di Rella, & MacCulloch, 2004; Easterlin, 1995; Ferrer-i-Carbonell & Ramos, 2014; Graham & Felton, 2006; Oishi & Kesebir, 2015;

Verme, 2011). Powdthavee, Burkhauser, and De Neve (2017) use top income share as an alternative to the traditional measure of income inequality, Gini index, and find the consistent results with previous studies. Thus, these studies show that the beginning part of Hirschman's idea does not exist. However, some studies suggest that high income inequality is positively associated with life satisfaction (Cheung, 2016; Rozer & Kraaykamp, 2013).

The tunnel effect is specially studied in the context of Russia and China. I will present both cases in the following paragraph. As Russia transformed its economy from the communist system to free market in the 1990s, this provides an exciting setting for Hirschman's hypothesis because inequality in Russia increases dramatically after economic reform. Ravallion and Lokshin (2000) used a household survey in 1996, which included both socio-economic data and subjective questions on perceptions of welfare to analyse the desire of redistribution. The key question is 'Do you agree or disagree that the government must restrict the income of the rich?'. The results reveal that almost 50 per cent of people who expect welfare to rise in the next 12 months support for redistribution, while 84.5 per cent of people who expect welfare to fall want the government to restrict incomes of the rich. On average, 72.3 per cent of the respondents were in favour of restricting incomes of the rich. Thus, this paper is well consistent with Hirschman's idea that attitude to redistribution relies on how people think and expect about their future. Another relevant work in Russia is conducted by Senik (2004) using Russian longitudinal monitoring survey between 1994 and 2000. Reference income is constructed to test empirically against life satisfaction. The results find the positive effect of reference income on personal satisfaction. Also, it is suggested that the Gini index is not statistically correlated with life satisfaction. This means inequality indices are not likely to affect people. It is concluded that people may be optimistic about their opportunity to be better off from development process that leads them to neutral to inequality. Moreover, Senik (2008) conducted cross-country analysis using individual-level data from several countries to examine how subjective well-being relies on own income and reference income. It is found that there is a negative relationship between reference income and individual subjective well-being in old European countries (Western European countries), while the relationship is positive in post-transition economies (Eastern European countries).

In addition, several studies of China found a positive relationship between Gini coefficient and happiness (Jiang, Lu, & Sato, 2012; Knight, Song, & Gunatilaka, 2009). Cheung (2016) tests the link between inequality and happiness using a large sample of 30 255 Chinese respondents. It is found that higher inequality is associated with higher life satisfaction in a rural area but not in the urban area. Hope for higher income due to policy to urbanise rural area may help people tolerate income inequality. This result is consistent with Whyte and Im (2014) using China national survey in 2004 and 2009 to examine people's attitude on income inequality. Their fundamental questions are 'Did the continued rise in income gaps and the impact within China of the global financial crisis lead to rising popular anger about the unfairness of current inequality patterns in 2009?' and 'Did the social contours of attitudes toward current inequalities shift over the five years between surveys?'. They find that 2009 respondents are significantly more likely to view current inequality as fair, despite the increases in the income gap in this period. It also suggests that 2009 respondents do not rise anger against the rich and successful, but they express a stronger desire for a government-provided social safety net. Another example from Wang, Pan, and Luo (2015) investigating an inverted U-shaped association between

Gini coefficient and individual happiness. They find that appropriate income inequality is beneficial individual happiness, while excessive income inequality yields the opposite effect.

However, economic models used to analyse inequality are criticised by Cramer (2003) because there are two opposite results of the relationship between inequality and conflict using close dataset. It is stated that an arbitrary selection of assumptions and capability of supporting the argument that is entirely contrast by changes in model specification give uncertainty in the effect of inequality on conflict. This can make inequality misconceived. Data are seen to be another obvious problem among researchers in the study of inequality using empirical methodology. It is noted that it is not only availability and consistency of data but also quality and coverage of data (Cramer, 2004; Fearon & Laitin, 2003; Fields, 1994; Szekely & Hilgert, 2007).

3 DISCUSSIONS

The Tunnel effect proposed by Hirschman illustrates how people understand and respond to income inequality along the path of development. Characteristics of society that make his arguments valid are well discussed. However, I find that his seminal contribution can be extended in a number of ways in order to broaden our understanding of societal tolerance to inequality in the process of economic development.

Firstly, there are only two groups of people engaged in the Hirschman's explanation : people who are apparently better off and those who are stagnant. Alternatively, there can be an interaction among three groups of people. This case is drawn from the studies highlighting winners and losers from globalization (Williamson, 2005; Milanovic, 2016). The first group is the winner when the country experiences high growth rate. They will find that they have an improved purchasing power. If they are seeking for jobs, they will get employed soon. If they are employed, their job position will be promoted. If they are a producer, even large or small firm, they may receive a huge order from the foreign consumer. All fortunate things are possible. With this increased income, they are better off. In essence, they then feel that they are a vital part of this rigorous economy. The second group is people who are worse off during the phase of development. They can be viewed as a loser. Examples are the firm realising that they are no longer competitive in the market due to an inflow of relatively cheap imported product, employers are being laid off or at least job positions are closed for a while. A fall in their output is unavoidable, which at the end affects the suppliers. A vicious cycle begins. It can be the case that people in this group are negatively affected by environmental degradation due to the construction of industrial site releasing pollution to air, water and soil. This is a negative externality that local people bear the burdensome cost. These people then feel that they are left behind. The last group is people who see themselves unaffected. They do not even know how impressive the economic performance is because they are too busy with their tough daily life. They may question about a high growth rate of the economy overall exaggerated by the Minister of Finance in the newspaper. They may indirectly benefit from a lower price of the commodity, but it is not that noticeably cheap. Their lifestyle and practice are not significantly changed.

Thus, when development exists, the ways people see inequality vary based on the position they are at that time. Firstly, people in the first group are deprived of sight by their fulfilled life. They do not care much about how big the difference between their position

and their poor fellows is. As they have no need to tolerate anything, their tolerance for inequality should not be changed. However, it may be possible that they know what current inequality is and feel sympathetic with people whose lives are affected negatively. But the important is whether they want their wealth to be redistributed? Secondly, people in this group are worse off suddenly. It is not likely that people facing inevitable lousy luck can still be optimistic at the early stage of development. Life has changed already. They are expected to have the high degree of tolerance not for income inequality but the terrible situation. Lastly, people in this group are likely to be explained by the Hirschman's idea. They see other people better off while they still pursue their own defined happiness. The degree of tolerance is supposed to be less substantial compared to the second group. In conclusion, in addition to Hirschman's path of tolerance is that the magnitude of tolerance at the early stage of development depends on how people, directly and indirectly, are being affected by development.

Additionally, Hirschman, at the beginning, sees a rising inequality as a result of development and argues further that people can tolerate this disparity of income as long as they still believe that this disparity will vanish some time in the future. Thus, Hirschman thinks that people are fully aware of inequality. However, it is ambiguous to conclude that this disparity is so influential that people take it seriously and cause them to take an action. It is logical to assume that material prosperity is an apex dream of people in the era of capitalism. However, people have a different set of goals. Some people want to be a millionaire. Some people do everything to be a doctor. Some people dream of being healthy. Money sometimes does not matter for some groups of people. Imagine that we are in the same tunnel and getting stuck in the same traffic jam. Nevertheless, our destinations are different. One may want to go to the shopping mall, while another one wants to go to the church. The place where one would like to go does not matter to another one and vice versa. It is true that we take a movement of each other as an indication, but it is limited merely to this tunnel. Also, how long people take to their own goal is not an essential point. Thus, the essence is whether a person can move after realising that other people have already moved and advanced. Nevertheless, the gap between two people may not matter. This is another channel on how inequality affects people. If the poor see the rich get more luxurious by any means, the poor can have several feelings, for example love, hate, envy and disappointment, but they might not care of the gap between themselves and the rich man.

Another extension is about the previous experience about economic development. People have different perspectives on country's development path. This attitude can affect the duration of tolerance for income inequality. There are two cases to be considered. For the first case, if the expectation has been reached for the previous development, they will be more tolerable for this current development. They can keep themselves optimistic about the disparity, because they know that sooner or later they will be better off. The second case is that if people have ever disappointed before as they gain nothing from the last development, the duration of tolerance for this current development will be short-lived and quickly decayed. The reason behind this argument is straightforward. People adapt and navigate themselves from their experiences. Thus, we should have concerns over the past different previous development.

A further issue is how a gratified person is holding a positive hope turn to the indignant one. Hirschman believes that a nonrealization of expectation will result in trouble at some points. It means that people no longer empathise with another group. In this case, time matters—not a specific event. However, it is possible that another sign of development can deteriorate tolerance. For example, supposed my mom is waiting for a good news from

me about getting the job after seeing that her friend's daughter gets a new job, the tunnel effect exists. Afterwards, my mom knows that her sister's son wins the lottery. How does my mom feel? It is likely that my mom now feels jealous that all fortunes go to relatives. She starts blaming on injustice in society. The plot thickens when there is still no definite sign for my future. Thus, another argument here is that time is not the only thing that matters. It is difficult to predict when people become furious about their luck, but it is not too difficult to predict if the same thing is reintroduced. When people expect something to happen, literally, they are happy to wait for a specified period but not forever. Whenever they know that the next chance goes to the same people, tolerance can decline.

The last point is the problem arising from several empirical studies investigating whether an increase in income inequality, positively or negatively, associates with either life satisfaction or happiness. However, the Gini coefficient used in these studies should be assumed to increase as a result of economic development. Otherwise, it will not represent the case of Hirschman's tunnel effect. However, in fact, income inequality represented by the Gini coefficient can increase or decrease by an allocation of resources even though the economy experiences no growth. For instance, the distribution of income is less unequal through a progressive tax without well-designed social welfare because government faces budget constraint. This will reduce inequality but the poor, who are waiting for their improvement in well-being, will realise soon that they get nothing and start being disappointed and furious.

4 CONCLUSION

Income inequality is a contemporary and interdisciplinary issue. It can be viewed and analysed using the different perspectives and tools. This paper tries to summarise Hirschman's idea on a changing tolerance for inequality and to suggest some extensions to this idea. Based on the Hirschman's proposition, inequality is viewed as a result of development, especially in the early stage. Even though people can tolerate this disparity at the beginning, the magnitude and duration of such endurance are different among a different kind of society, and these are difficult to predict. Several studies empirically examine and find Hirschman's idea in many ways, especially a causal relationship between inequality and life satisfaction. Still, there is a broad research avenue on how people perceive and respond to income inequality during the path of development. The natural experiment can be another methodology to assess this idea. Also, in the developing countries, a set of subjective questions should be included in the national household's socio-economic survey so that we can see and figure out the pattern of different perceptions towards income disparity among sex, education, income and other household characteristics. As the world today has dramatically changed from 45 years ago, the day that Hirschman proposed this fascinating tunnel effect, we need new lens to view how people understand this challenging issue.

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