Income distribution and development

## Introduction

A crucial topic of development economics is whether exacerbation of income distribution is an unavoidable characteristic of a country's economic growth. In Kuznets' pioneering 1955 study, he attempted to test an inverted-U hypothesis, that is to say, worsening of income distribution at the start of modernization and an improvement of distribution after a turning point (p.18). Using data only from the US, UK and Germany, Kuznets repeatedly notes that the limited data set only represents a particular time and, therefore, could not be generalized (1955, pp.27-28). Yet, many economists later tried to test Kuznets's U-curve. Most of the studies are based on cross sectional analyses due to the reason that consistent data are scarce in many developing countries and that time series analysis is infeasible (Ahluwalia et al, 1979; Anand&Kanbur, 1993). Such an argument is often justified by claiming that distribution will improve in later phases of development. Thus, it is important to examine both parts of the argument: whether significant inequality is an unavoidable characteristic of growth and whether improvements in distribution will actually take place in later stages.

The essay will first discuss Kuznets (1955)'s assumptions and his arguments, followed by counterarguments. Problems regarding the empirical tests of Kuzents' model are discussed in the end.

## Gini-coefficient and Lorenz curve

Before delving into the main discussion, it is worth introducing the Gini coefficient: the common measurement of inequality derived from Lorenz curve. UNDP data use this measurement. Lorenz-curve depicts how income is distributed within a population. When the curves do not intersect, the further the curve is from the 45 degree line, the wider the inequality. Referring to figure 1, the Gini-coefficient is the shaded area over the area of triangle OAB. The higher the value of the Gini-coefficient, the more unequal the distribution is. When two curves intersect and possess equal Gini-coefficient values, the relative proportions received by each income groups should be examined for deeper analyses on social structure (Todaro&Smith, 2002, pp.202-3).

## Kuznets' argument

Kuznets (1955)'s primary attempt was to discover how modernisation and industrialisation affect the pattern of income distribution in advanced countries. He showed that there is an increase in the earlier phases of development and a decline in the later phases (p.18). The discussion is based on the modernisation theory of Arthur Lewis with the dual economy premise of inter-sectoral migration from a traditional sector to a modern sector. Kuznets makes two key assumptions. First, on average, the urban population receives a higher per capita income than those in rural areas; and second, inequality is wider in urban areas than in rural ones (1955, pp.7-8). Therefore, in principle, inequality should rise through modernisation. Also, Kuznets assumes the Harrod-Domar model, which supports his argument that the accumulation of capital under the modern sector enables faster growth (1955, p.9). Yet, he argues that after the economy reaches a certain point, other factors ameliorate the distribution of income. He explains that the contributing factor to equality was mainly political forces (pp.8-9). People who doubted the optimism of the trickle-down effect and those who did not sufficiently benefit from the growth urged for more egalitarian policies (Kuznets, 1955, p.9). In addition, other less apparent forces such as technological change also alleviated the degree of inequality (1955, pp. 9-11).

## Role of political institutions

However, as stated above, Kuznets (1955) only uses the data of three western developed countries. Several critiques arise when applying the same explanations to contemporary developing countries, as Kuznets himself acknowledged (1955, p.25).

One of the essential points in Kuznets's argument, overlooked by Ahluwalia et al (1979) and Anand&Kanbur (1993) is the function of political institutions (Kuznets, 1955, p.25). Factors leading to the turning point are heavier taxation on the rich, lower interest and rent rates and the wider opportunity for education, which provides social mobility to the lower classes (Kuznets, 1955, p.9). These policies were implemented as a result of strong political forces. Yet, in many developing countries, bases for building a progressive taxation system may be absent (Kuznets, 1955, p.24); the voices of the people may be silenced (Bigsten, 1987, p.162); and lack of educational opportunities undermine the potential for upward mobility. Therefore, "dynamism" of economy and politics would be absent and turnover or modifications of the status quo will not occur (Kuznets, 1955, p.11). When these offsetting factors to improve the distributions are absent, the changes will not happen, and inequality continues to widen in the presence of economic growth.

### Abundant labour and global economy

Another critique is that the current labour market and production lines are on a global scale compared to the time of industrialisation in western countries. Regarding the transfer of cheap constant wage labour from the traditional to modern sector or from rural to urban, the logic remains constant. Producers always seek low wage labour. If the initial areas' commodity prices start to inflate along economic growth and if subsequently labourers start to demand higher wages, multinationals can move their factories abroad, where the prices of labour are cheaper, or employ rural migrants (Bramall, 2000, p.38). The politics extend beyond the domestic market and are now significantly global as the top of the production line reside outside the LDCs, in advanced countries. It is difficult for workers to achieve meaningful change under such circumstances. Companies and labours in the poor region inevitably accept the low income to maintain international competitiveness given their comparative advantage of cheap labour. For instance, the demand for increase in wages in the south-eastern part of China forced companies to move their production lines further west in China and even to South Asia, i.e. India and Bangladesh. The companies' decisions then forced labourers in the south-east to concede the low wages. Finally, in 2010, after a numerous workers' suicides and wildcat strikes, a 20% wage increase in the cities of Beijing, Shenzhen and Guangzhou was achieved this year through minimum wage legislation (Giles&Jacob, 2011). The trickle-down effect will not naturally occur, and is unlikely especially when abundant labour and production lines exist on a global scale. Bigsten argues that for the trickle-down effect to occur in any substantial way, it would take generations, which raises the question of morality (1987, p.157).

## Relationship between inequality and growth

The question is: To what extent does inequality promote economic growth? Certainly, if the rich have more potential to save larger amounts of money, given the Harrod-Domar model, the more money the rich possess, the higher the growth of an economy, as implied in Kuznets(1955), Ahluwalia et al (1979) and Anand&Kanbur (1993). However, this explanation is only valid when the rich has the will to develop its domestic economy. Failures of import substitution industrial policies, where the rich spent money on imported luxuries and high-value added goods present the limited will of the rich (Baer, 1972, p. 108). Also, the Harrod-Domar model's preconditions do not necessarily exist in developing countries (Todaro&Smith, 2010, pp.114-5). Therefore, the higher saving of the rich does not necessarily generate domestic growth in developing countries.

Moreover, there are cases where inequality has hindered secular growth. For instance, the Middle East and North African uprisings today represent such, where inequality partly contributed to political turmoil rather than sustainable development. The 2011 World Development Report notes that these countries are thrown into conflict despite positive rates of growth in preceding years (Beattie, 2011, p.7). To verify, according to the World databank's indices of annual per capita GDP growth rates, Egypt, Jordan and Tunisia in 2008 recorded 5.2%, 5.1% and 3.6%, respectively. The UNDP Gini indices of above countries in 2000-2010 were, 32.1, 40.8 and 37.7. Compared to some advanced countries where Gini Indices are around 20, they are relatively high, although not as high as Latin American countries where the Gini Indices range from 45 to 60.

It is also equally wrong to argue that a more egalitarian distribution would generate faster growth. Sri Lanka achieved a relatively equal distribution of income in 1990s, but its rate of growth was low since the majority lived in poverty (Todaro&Smith, 2002, p.217).

### Cases inconsistent with inverted-U curve

There are cases where rapid growth was accompanied by relatively equal distribution of income. Conspicuously, many studies on East Asia challenge the mainstream view of the negative relationship between growth and equality (Bramall, 2000, p.30).

Their egalitarian rapid growth is largely owed to the preceded redistributions of land ownership. They were achieved under a particular historical context rather than autonomous domestic policies. Aseniero argues that, for South Korea and Taiwan, land reform was a result of Japanese colonisation. Japan, acting in its own interests, broke down the rigid class relations between landlord classes and government authorities, and making use of brutal force when resisted (1994, p.302). Bigsten argues that policies which pursue redistribution of assets embrace the possibility of destroying the status quo of the political structure (1987, p.155-6). Kuznets also argues that resistance and conflicts are inevitable (1955, p.25) as many of the conflicts in modern Africa have their roots in disputes over land ownership created during colonisation eras (Ryan, 2011, p.10) It is often difficult to impose land reform in LDCs, since landowning classes often possess significant political power (Bigsten, 1987, p.155-6).

Secondly, East Asian countries pursued labour-intensive productions which absorbed the abundant domestic labour, resulting in a robust middle class. This is crucial for an egalitarian pattern of development so that the growth is not solely dependent on the rich and that incomes could be directly earned by the low and middle income groups (Bigsten, 1987, p.158) Yet, what made their development different from that of other developing countries was that they pursued a dynamic pattern of growth, that is to say, they shifted the type of labour-intensive production from low-value added works to more sophisticated ones and simultaneously enhanced the quality of labour through education (Bigsten, 1987, p.160). This enabled companies to remain in their country to use the domestic labour, even as wages increased.

Thirdly, technological advancement might have supported egalitarian distribution. This is because, in theory, if an economy creates inflation through development but the absolute wage is constant, then relative income declines. In this situation, labourers need to work longer hours to compensate for their loss of purchasing power.

Yet, if a higher productivity is achieved, then factories can produce more products in the same amount of work time. And in principle, even with inflation, workers can earn enough to maintain their purchasing power with the same hours of work or even less than before. As Giles&Jacob writes, though in reality, factory owners demand longer hours of work without raising wages until there is an increase in minimum wage legislation (2011). Yet, without technical innovation, the workers' situation could have been worse, leaving them trapped with low wages.

In sum, there has been rapid growth in East Asia without the exacerbation of income distribution. Redistribution of landownership, labour-intensive productions and technological advancement along with enhanced level of education enabled the relatively egalitarian pattern of growth. This is not consistent with Kuznets' hypothesis.

## Methodological issues

Lastly, critiques toward the analytical method used for this area of study are discussed. First of all, it is problematic to substitute time-series analyses with cross-sectional analysis, even with the excuse that data is too scarce for the former. It would be wise not to do any analysis than making the problem more abstruse, as Saith astutely points out (1983, p.382). The problem with Ahluwalia's (1976) analysis, which is a landmark study, is that his conclusion is dependent on the data he uses. His result depends on the samples of middle-income Latin American countries where wide inequality exists. If those samples were excluded, the significance of the model disappears (Saith, 1987, p.367; Todaro&Smith, 2002, p.217-8). By modifying other parts of data such as excluding socialist countries, as was tested by Saith, this changes the results significantly (1987, pp.374-7), raising doubts toward Ahluwalia's argument of calling the inverted-U curve the "stylised facts" (Ahluwalia, 1976, p.308).

Far from being a general 'consequence' of the relationship between inequality and growth, it seems to be a mere 'coincidence' of data. The correlations are apparent, but causality remains elusive. It would have been better if Ahluwalia had explicitly noted the volatility of his analysis, like Kuznets (1955) had done. His proposal needs to be examined with caution since it has the potential to falsely encourage international politicians and multinationals to disregard the problem of inequality.

Another point about the methodological issue is that the measurement of 'growth' is biased toward the rich. It is because the measure of GDP growth is income-weighted, so the growth of the higher income group skews aggregate growth. Todaro&Smith and UNDP propose alternative measurements of growth, which reflect the change of the living level of the poor. Weights are shifted towards the poorer (Todaro&Smith, 2002, pp.255-8). This should bring different results to the analysis of growth and inequality.

## Conclusion

This essay argued that exacerbation of the distribution of income in earlier phases of development is not inevitable and that improvement of income distribution in later phases is not in itself autopoietic. It considered Kuznets hypothesis and argued that his study is about developed countries where political forces functioned for trickle-down effects. Application to contemporary LDCs will not work as the political institutions may be absent and today's global economic structure is rigid. Equal distribution of income also will not bring rapid growth when abject poverty widely persists. In addition, East Asia's relatively egalitarian rapid growth was offered as a counterargument to the inverted-U path. Relatively equal land ownership derived from their history, labour-intensive production, technological advancement, education policies and developmental state strategies enabled such growth. In the end, methodological issues were discussed by questioning the validity of cross-sectional analysis. In summary, the secular relationship between development and inequality depends on the complex combination of geo-political, historical and socioeconomic factors of each country and is not a fixed law.

Bibliography

Ahluwalia, M.S. (1976). “Inequality, poverty and development”, Journal of Development Economics, Vol. 3, No. 4, pp. 307-342.

Ahluwalia, M.S., Carter, N.G. and Chenery, H.B. (1979). Growth and poverty in developing countries. In: H.B. Chenery. 1979. Structural change and development policy. Oxford: Oxford University Press. Ch. 11.

Anand, S. and Kanbur, S. (1993). “The Kuznets process and the inequality-development relationship”, Journal of Development Economics, Vol. 40, No. 1, pp. 25-52.

Aseniero, G. (1994). “South Korean and Taiwanese development: the transnational context”, Review Fernand Braudel Centre, 17:3, pp. 275-336.

Baer, W. (1972). “Import substitution and industrialization in Latin Amercia: experiences and interpretations”, Latin American Research Review, Vol. 7, No. 1, pp. 95-122.

Beattie, A. (2011). Rethink on peacekeeping urged. Financial Times. 11 Apr. p.7.

Bigsten, A. (1987). Inequality and Development. In: N. Gemmell, ed. 1987. Surveys in Development Economics. Oxford: Basil Blackwell. Ch. 2.

Bramall, C. (2000). “Inequality, land reform and agricultural growth in China 1952-1955”, Journal of Peasant Studies, Vol. 27, No. 3, pp. 30-54.

Fields, G.S. (1980). Poverty, inequality and development, Cambridge: Cambridge University Press.

Giles, C. & Jacob, R. (2011). An inflated outlook. Financial Times. 9 Apr.

Kuznets, S. (1955). “Economic growth and income inequality”, American Economic Review, Vol. 45, No. 1, pp. 1-28.

Ryan, O. (2011). Land and farm reforms await Ouattara. Financial Times. 7 Apr. p.10.

Saith, A. (1983). “Development and distribution: a critique of the cross-country U-hypothesis”, Journal of Development Economics, Vol. 13, No. 3, pp. 367-82.

Todaro, M.P. and Smith, S.C. (2003). Economic Development, 8th ed, London: Addison Wesley.

United Nations, 2011, UN data: A World of Information. [http://data.un.org/DocumentData.aspx?id=230]. Accessed 19 April 2011.

World Bank, 2011, World Development Indicators & Global Development Finance. [http://databank.worldbank.org/ddp/home.do?Step=3&id=4]. Accessed 19 April 2011.