Pro-poor growth and the realization of common prosperity of socialism with Chinese characteristics

Fan Conglai

School of Economics, Nanjing University, Nanjing, China, and

Xie Chaofeng

Henan Normal University, Xinxiang, China

Abstract

Purpose – As the essential requirement of socialism with Chinese characteristics, common prosperity stands for both the goal of and the approach to economic growth. Shared development is a new stage of the process of common prosperity. From the perspective of economic growth, it requires the low- and middle-income groups to gain more from the growth than high-income groups. The paper aims to discuss these issues.

Design/methodology/approach – Based on provincial panel data, the random effect model and the dynamic panel model are used in this paper to analyze the path to achieve pro-poor growth.

Findings – The keys to achieve pro-poor growth are first to promote new urbanization with people at the center, diversify the forms of employment and improve the income structure of the residents, and second to improve the accuracy in designing redistribution policies.

Originality/value – After the realization of "some get rich first" policy, it is important to swiftly adapt to a new mindset of shared development, which charters a new course to the Marxist common prosperity. There exist few established economic theories or action plans with respect to shared development. Pro-poor growth, however, offers a perspective to achieve both sharing and development.

Keywords Path, Pro-poor growth, Common prosperity, Shared development

Paper type Research paper

As the essential requirement of socialism with Chinese characteristics, common prosperity stands for both the goal and the final result. The former is to follow the path that takes common prosperity as a goal, and the latter is to make common prosperity the principle of distribution. China is still at the primary stage of socialism, and its productivity has not yet been highly developed. At this stage, the mentioning of common prosperity mainly refers to the path toward common prosperity. So how can common prosperity be achieved? From the perspective of economic growth, common prosperity is only possible when the low- and middle-income groups, thanks to economic progress, enjoy higher income growth rate than the average. Such a pro-poor growth is the essential approach to achieve common prosperity.

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1. Common prosperity is the intrinsic requirement of socialism with Chinese characteristics

1.1 The connotation of common prosperity

The idea of common prosperity goes back a long way. Marx and Engels founded the scientific socialism and transformed common prosperity from a utopian concept into science. What essentially distinguishes socialism from other social regimes is that it, through scientific analysis, recognizes that the future society should achieve common prosperity for all its workers and provide them with the best and the happiest lives (Wei, 2012).

China's reform and opening-up has constantly enriched the Marxist concept of common prosperity. For China, common prosperity has become the only way to and the essential requirement of socialism with Chinese characteristics. Comrade Deng (1993) reiterated that "the goal of socialism is to achieve common prosperity for the whole population, and not to polarize them. If our policies lead to polarization, it would mean that we had failed; if a new bourgeoisie emerges, it would mean that we had strayed from the right path". The concept of common prosperity with Chinese characteristics is to encourage everyone to create wealth and strive for prosperity, and to liberate workers to promote common prosperity (Research Center for the Theories of Socialism with Chinese Characteristics of the Chinese Academy of Social Sciences, 2011). Therefore, the common prosperity of socialism with Chinese characteristics is to follow the path toward common prosperity (Fan, 2017).

1.2 Shared development is a new stage on the path toward common prosperity of socialism with Chinese characteristics

Restrained by productivity and relations of production, common prosperity cannot be achieved overnight. In analyzing the fundamental contradiction of capitalism, Marx (1972) pointed out that "then, on one side, necessary labor time will be measured by the needs of the social individual, and, on the other, the development of the power of social production will grow so rapidly that, even though production is now calculated for the wealth of all, disposable time will grow for all". It shows that the continuous development of productivity is an important prerequisite for the realization of common prosperity. Given the dialectical relationship between productivity and relations of production, the continuous development of productivity will accordingly bring about changes to the institutional arrangements for common prosperity.

China's exploration of common prosperity has experienced different stages, including the confiscation and distribution of the landlords' properties during the liberation war, the communal meals and lifelong secured jobs during the planned economy, the policy of "allowing some people to get rich first and then help those legged behind" at the early stage of reform and opening-up, and the goal of ensuring all the people to share the fruits of development proposed at the 16th National Congress of the Communist Party of China in 2002. At the current stage, based on the policy of "allowing some people to get rich first and then help those legged behind," the Party has put forward the concept of shared development, that is, "development for the people, by the people and with the people sharing its fruits." Over the years, China has explored a unique path toward common prosperity.

The notion of shared development has further enriched people's understanding of common prosperity. For a long time, people had regarded common prosperity as a static concept and only a result of the distribution of material wealth (Chen, 2016). However, common prosperity is actually a dynamic process, and the development shall be shared in the process of co-construction. Shared development involves not only the result but also the dynamic process. It is the dialectical unity between "sharing" and "development" – maintaining a rapid and stable economic growth, and at the same time appropriately distributing the economic development results, so as to achieve common

prosperity and sustain the virtuous interaction between distribution and growth. The "objects" to be shared become much broader, including not only economic aspects, but also democratic rights, spiritual culture, ecological environment, etc.

2. Shared development and pro-poor growth

The development concept provides guidance to development actions. Common prosperity can only be a castle in the air without the correct path and methods. As a new stage on the path toward common prosperity, shared development needs to address many problems existing in the current economic and social development. One of the key challenges is to promptly accelerate the income growth of low- and middle-income groups.

This paper uses the calculation of growth elasticity of poverty reduction to illustrate the necessity and urgency for China's path to common prosperity to usher in a new stage. To this end, first the standard of poverty needs to be determined. This paper adopts the extreme poverty standards defined by the World Bank. In 1990, the World Bank set the poverty line standard at \$1.01 per day based on the purchasing power parity of 1985. In 2005, the World Bank raised the standard to \$1.25 per day based on the updated purchasing power parity. Therefore, this paper adopts the poverty line standard of \$1 per person per day for years before 2005, and \$1.25 per person per day for years after 2005. Since the World Bank's poverty line is calculated on purchasing power parity, this paper, limited by data availability, calculates the fixed-base consumer price index from 1985 to 2004 with the 1985 US price index as base value, and then calculates the poverty line in US dollars of each corresponding year. Next, the paper converts the poverty line in RMB for the corresponding years at the actual exchange rate, which was deduced from the change rate of China's general price level, and then adjusts (with) the fixed price index to eliminate the impact of price changes. The poverty lines from 2005 to 2015 are determined in the same way[1]. The annual poverty lines are then calculated by multiplying the daily minimum standards of living by 365 days.

As for the measurement of poverty, Kakwani and Son (2008) adopted the additively decomposable poverty measures, which they considered to be the most universal method. In the case where the sample size of household survey data is n, the household consumption or income per capita is x_i, and the poverty line is z, then there are three ways in measuring poverty of a society. The first measurement is the number of people below the poverty line as a percentage of the total population. This method is intuitive but less accurate, and cannot measure poverty at an individual level. The second measurement is the sum of the "gaps" between the poverty line and the per capita income of the poor. This indicates the average degree of poverty at individual level, but everyone in the calculation is treated as the same, while the reality is that some people are farther from the poverty line than others, and they are poorer and harder to be alleviated from poverty. The third measurement is to give greater weight to those who are further below the poverty line, that is, the weighted sum of "gaps." Poverty is measured through Foster–Greer–Thorbecke, the measurement index of the additively decomposable poverty measures:

$$P_\alpha = \sum_{i=1}^{n} I_i \left[\frac{z - x_i}{z}\right]^\alpha w_i. \tag{1}$$

In the equation, I_i is the characteristic coefficient with a value of either 0 or 1, and it equals 1 when the household income or consumption per capita x_i is below the poverty line z, otherwise it equals 0. w_i is the weight coefficient of the households at the number of i, which can be expressed with the ratio of the household headcounts to the sample size. When $\alpha = 0$, the poverty measurement index stands for the proportion of the population in poverty, that is, the incidence of poverty P_0. When $\alpha = 1$, the poverty measurement index

represents the poverty gap, that is, the depth of poverty P_1. When $\alpha = 2$, the poverty measurement index stands for the square of the poverty gap, that is, the poverty severity P_2. α is the inequality aversion parameter, and the greater the value of α, the greater the weight is given to poverty.

Before 2013, China had been carrying out urban and rural household statistical surveys separately. Since 2013, it has been implementing an integrated sample survey of urban and rural household on their income, expenditure and the living conditions, and at the same time releasing data of disposable incomes in categories of national residents, urban residents and rural residents. For data of and prior to the year 2012, only the disposable income of urban residents and the net income of rural residents are available. The data of net per capita income of rural residents and overall disposable income per capita are released in five evenly divided groups. The data released on the disposable income per capita of urban residents further divided the low-income group into the lowest (10 percent) and the relatively low (10 percent), and the high-income group into the highest (10 percent) and the relatively high (10 percent). Taking this into consideration, this paper divides the urban disposable incomes per capita of each year before 2013 into five even groups, namely, taking the simple average values of the lowest income and the low income, as well as the high income and the highest income. Because of the different distribution of income groups in urban and rural areas, with the data released by the National Bureau of Statistics, this paper calculates $_b$ the gap between the disposable incomes of urban and rural residents in each of the quintile groups in 2013, and c, the gap between the disposable incomes of urban residents and the national average in each of the quintile groups in 2013. In doing so, c/l is the weight coefficient of per capita disposable income of urban residents to that of the whole population in each of the quintile groups[2]. In this way, the average per capita disposable income of the whole population from 2002 to 2012 can be calculated.

Figure 1 shows the changes of poverty indicators from 2002 to 2015 as calculated based on national household disposable income by quintiles. The incidence of poverty is the proportion of the population below the poverty line to the total population. The figure shows that the incidence of poverty has declined rapidly, to the current level of less than 10 percent. The poverty depth and severity are the weighted sum of income gaps between the poverty line and the income of the poor, and they also demonstrate similar trends to the incidence of poverty. It could be inferred that China has achieved great results in poverty reduction.
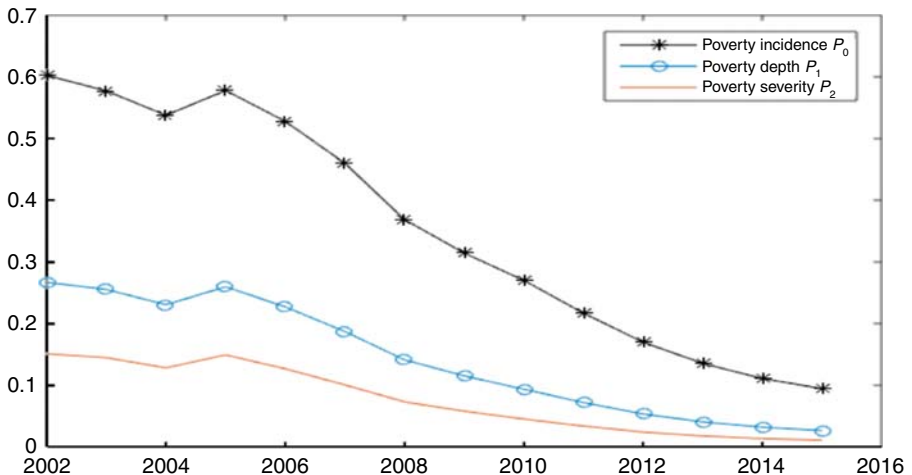

Figure 1.
Poverty indicators

The paper further calculates the growth elasticity of poverty (η), which is defined as the proportional change in poverty when there is a growth rate of 1 percent. If η is negative, it means that economic growth reduces poverty – such alleviation thanks partly to a "bigger pie" as well as enhanced distribution. If η is positive, economic progress comes with greater poverty. The results are shown in Figure 2.

The growth elasticity of poverty in Figure 2 stays negative, indicating that economic growth contributes to poverty reduction. However, the pro-poor effect of economic growth has been moderated since 2012.

To understand the impact of growth and distribution in the growth elasticity of poverty, this paper introduces the notion of poverty equivalent growth rate raised by Kakwani and Son (2008). η can be decomposed into two components, pure growth effect (δ) and distribution effect (ε) such that $\eta = \delta + \varepsilon$. Pure growth effect will always be negative, whereas distribution effect can be either positive or negative. If ε is negative, it means that with improving distribution poverty is further reduced. Thus, the degree of pro-poor growth can be measured by an index:

$$\phi = \frac{\eta}{\delta}. \tag{2}$$

When $\varepsilon < 0$, which means narrowed income disparity and increased income for the poor, ϕ will be greater than 1. Thus, the growth is pro-poor, according to the definition of which the poor benefit proportionally more than the non-poor. When $\varepsilon > 0$, which suggests narrowed income disparity yet decreased income for the poor, growth is not strictly pro-poor even though it still reduces poverty if $0 < \phi < 1$. This situation may be characterized as trickle-down growth (Kakwani and Son, 2008). Economic growth, however, aggregates poverty if $\phi < 0$. This paper calculates pro-poor growth index based on poverty incidence, poverty depth and poverty severity, the results of which are shown in Table I.

As presented in Table I, China's economic growth in the twenty-first century is in general pro-poor. But before 2005, economic growth cannot be considered highly pro-poor because 2002–2003 indices based on poverty depth and severity are less than 1, though the index based on poverty incidence is greater than 1. This shows that the growth is not technically pro-poor. The income of the low-income population, especially those far below the poverty threshold, grows slower than that of their high-income counterparts. For 2004–2005, the
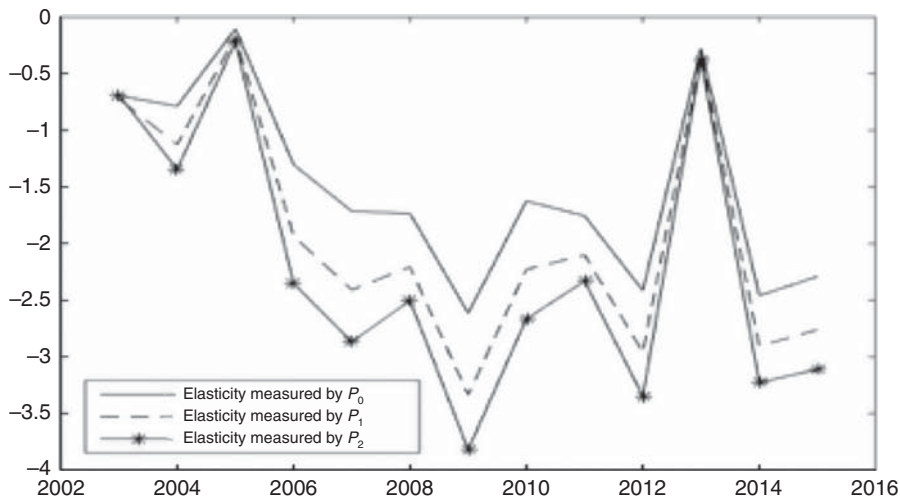
Period	By poverty incidence			By poverty depth			By poverty severity		
	η	δ	ϕ	η	δ	ϕ	η	δ	ϕ
2002–2003	−0.70	−0.58	1.20	−0.72	−0.85	0.85	−0.69	−0.79	0.87
2003–2004	−0.79	−0.81	0.97	−1.13	−1.17	0.97	−1.35	−1.38	0.98
2004–2005	−0.013	0.01	−1.25	−0.02	0.01	−1.63	−0.02	0.01	−1.91
2005–2006	−1.30	−1.06	1.23	−1.93	−1.52	1.27	−2.35	−1.85	1.27
2006–2007	−1.72	−1.26	1.37	−2.41	−1.74	1.38	−2.87	−2.07	1.39
2007–2008	−1.73	−1.30	1.33	−2.20	−1.74	1.27	−2.50	−1.92	1.30
2008–2009	−2.62	−1.75	1.49	−3.34	−2.26	1.48	−3.82	−2.56	1.49
2009–2010	−1.62	−1.15	1.41	−2.23	−1.46	1.53	−2.66	−1.89	1.41
2010–2011	−1.75	−1.30	1.35	−2.10	−1.62	1.30	−2.33	−1.75	1.34
2011–2012	−2.41	−1.70	1.42	−2.96	−2.06	1.43	−3.35	−2.38	1.41
2012–2013	−0.28	−0.20	1.40	−0.34	−0.24	1.42	−0.38	−0.28	1.38
2013–2014	−2.46	−1.88	1.31	−2.90	−2.21	1.31	−3.23	−2.50	1.29
2014–2015	−2.29	−1.76	1.30	−2.76	−2.05	1.34	−3.11	−2.45	1.27

Note: [a]Figures in the table are rounded, and refer to Kakwani and Pernia (2000) for the decomposition methodology of δ and ε

Table I.
Nation-wide pro-poor
growth index[a]

pro-poor growth indices become negative. The growth effect is positive, though small in number, but the economic growth comes with greater poverty. Since 2002, China has undergone a golden period featuring high growth and low inflation. The soaring food price in 2004–2005, however, caused a moderate increase in CPI. Food price went up by over 26 percent in 2004 and cast a deeper impact on the low-income population given the drastic differences in consumption structures of different income groups. That fully justifies the necessity to depart from the "some get rich first" policy adopted at the beginning of the reform and opening-up to shared development, a new phase toward common prosperity.

Referring to Rongxin Cai's (2009) interpretation of the relationship between economic growth and income, the paper applies also the distribution curve of population and income (Figure 3) to analyze the ways how fast economic growth, shared development and common prosperity are interrelated with one another.
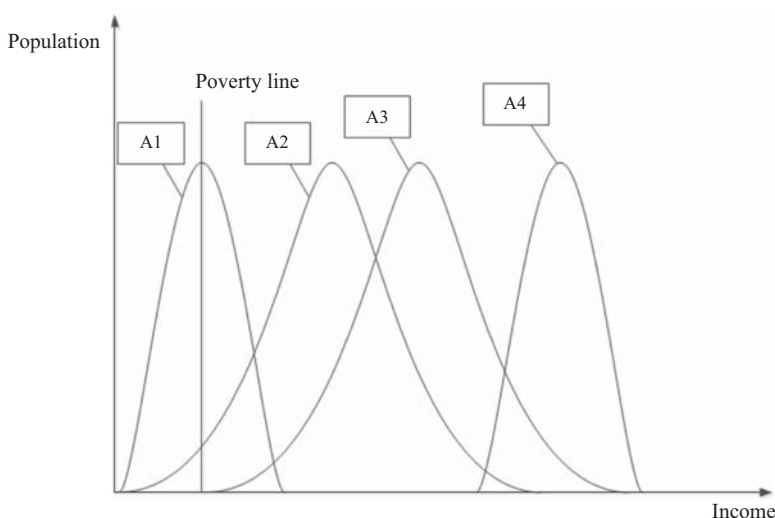

Figure 3.
Distribution curves of
economic growth and
income

The economic performance of a developing country in its early stage could be represented by A1, in which scenario most people live under the poverty line with relatively equal income distribution. By letting some get rich first, rapid economic growth brings about higher average income yet broadened inequality. As the economy prospers, the majority's living standards are enhanced while the effect of poverty reduction is diminished, with some stuck in poverty. At this stage, the income distribution is like A2. Further development might be conducive to increase the income of the poor but with limited impact on inequality as demonstrated by A3 – all are out of absolute poverty but distribution gap remains large. After the eradication of absolute poverty, ensuring the proportional benefit that flows to the poor is higher than that to the average will increase income yet narrow its gap, ultimately forming a positively reinforcing interaction as A4.

The analysis suggests the "some get rich first" policy was meant to unleash productivity and get China out of the "low-income trap" in a quick manner. After its realization, it is important to swiftly adapt to a new mindset of shared development, which charters a new course to the Marxist common prosperity.

3. Pro-poor growth: new insight into common prosperity

As suggested by Figure 1, from 2004 to 2012, the pro-poor effect of China's economic growth was intensified after the notion of shared development was put forward. However, since China's economy entered a New Normal in 2009 with slowing-down growth, its marginal effect on poverty reduction has been weakened progressively, which put in front of us an issue – how to further promote common prosperity in the context of the New Normal? There exist few established economic theories or action plans with respect to shared development. Pro-poor growth, however, offers a perspective to achieve both sharing and development.

The World Bank raised in 1990 the notion of broad-based growth featuring equal benefits, and the Asian Development Bank put forward in 1999 pro-poor growth as one of its three pillars for poverty reduction strategy. Pro-poor growth shares the same merits with concepts such as broad-based growth and inclusive growth and is typically defined as the poor benefitting proportionally more from economic growth than the average. Such growth is apparently conducive to common prosperity.

A basic thinking behind pro-poor growth is allowing the low-income population to receive more benefits. It is further categorized in terms of relative, absolute and broad pro-poor growth. The relative concept arises when the income of the poor increases faster than that of the non-poor (Kakwani and Pernia, 2000); pro-poor growth is absolute if the poor receives more absolute benefits than the non-poor (Grosse *et al.*, 2008); and the broad concept defines growth as pro-poor as long as it reduces poverty (Ravallion and Chen, 2003). The absolute pro-poor growth is clearly the strictest definition, followed by relative and then broad ones. This paper adopts the definition of relative pro-poor growth. It first requires increasingly equal opportunities. Second, it emphasizes a fair amount of attention on the poor, making economic growth favorable and sustainable for the majority. Third, it facilitates full employment. To narrow the distribution gap, the poor needs to be fully employed and the increase of labor income should outpace that of capital return.

Pro-poor growth is defined to be favorable for the low-income population, allowing them to enjoy faster income increase. Primary distribution and redistribution determine directly to what extent the economic growth is pro-poor. From that perspective the paper will explore how can the concept of pro-poor growth be made operational.

With the statistics of urban household per capita disposable income by quintiles[3], this paper first applies aforementioned methodologies to calculate pro-poor growth index by poverty incidence. The reason to take poverty incidence as a dependent variable (y_{it}) is that poverty incidence, poverty depth and poverty severity are consistent in general. Furthermore, as presented in Figure 1, poverty, however, declines with more weight being added to the

poorer, suggesting that after years of development China is above subsistence level and absolute poverty is rare. Existing studies have discussed the approach of pro-poor growth (Xie *et al.*, 2017). Based on that, this paper examines provincial panel data and takes provincial per capita GDP changing rate ($pgdp_{it}$), proportion of the tertiary and secondary industries (ind_{it}) and urban employment rate (urb_{it}) as control variables[4]. The paper includes these control variables because, in the progress of China's dualistic economy, rural labor has embraced increasing job opportunities in non-agricultural sectors, which narrows the urban-rural income gap, thus improving distribution in general (Cai, 2013). For primary distribution, the paper takes into account indicators such as labor market, general commodity price and housing price. For the measurement of labor market, urban registered unemployment rate (ru_{it}) and wage index of urban employees (w_{it}) are listed as proxy variables. Price of general commodities is represented by consumer price index in different provinces (cpi_{it}). And housing price (hp_{it}) is measured by the average price of commercial residential building. Among redistribution factors, expenditures related to well-being are significantly pro-poor for the low-income groups (Lu and Zhang, 2010; Lin, 2005; Zhou *et al*, 2015), this paper therefore represents redistribution factors with the proportion of government spending in local public expenditure as regards education, healthcare and pension (pub_{it})[5]. Minimum wage (mw_{it}), the protection of which benefits the poor, is also taken as a redistribution factor. Above data come from Wind Database and provincial statistical yearbooks.

Limited by data availability, provinces without publishing disposable income by quintiles or only covering a short time span, and those with high data deficiency as regards dependent variables are excluded – in total 15 provinces (autonomous regions) including Tianjin, Shanxi, Jilin, Heilongjiang, Shandong, Hubei, Hunan, Hainan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai and Xinjiang. That leaves a sample pool consisting of 16 provinces and autonomous regions with data from 2006 to 2015. Missing data of a certain year for Hebei, Inner Mongolia, Guangdong, Sichuan and Ningxia are replaced by the average increase rate within the period. Before 2013, a small number of provinces publish household disposable income by septiles, and this paper uses simple average to combine the lowest (10 percent) and the relatively low (10 percent) into the low-income group (20 percent), and similarly the highest (10 percent) and the relatively high (10 percent) into the high-income group (20 percent).

The regression equation can be expressed as follows:

$$y_{it} = \alpha + \beta_1 con_{it} + \beta_2 x_{it}^1 + \beta_3 x_{it}^2 + \beta_4 x_{it}^3 + \varepsilon_{it}, \tag{3}$$

here con_{it} refers to control variables of x_{it}^1, x_{it}^2 and x_{it}^3, x_{it}^1 stands for labor market indicators of registered unemployment in urban areas (ru_{it}) and the wage index of urban employees (w_{it}). x_{it}^2 stands for price indicators of consumer price index (cpi_{it}) and average housing price (hp_{it}). x_{it}^3 represents government-led redistribution, including public spending as a ratio of fiscal expenditure (pub_{it}) and minimum wage (mw_{it}). In particular, hp_{it} and mw_{it} are put in as logarithms. Descriptive statistics of the variables are shown in Table II.

Based on the Hausman test, the paper adopts the random-effects model and panel data analysis to estimate the impact of primary distribution and redistribution on the degree of pro-poor growth[6]. Since the pro-poor index used in the paper is monotonic, regression coefficients serve as signals for potential pro-poor growth policies. The results are shown in Table III.

Panel data can address inherent problems arising from missing variables. However, due to complex relationship between income distribution and economic growth as well as the continuity issue of poverty changes, this paper has cautiously used the dynamic panel data of the preceding time period for estimation[7]. Despite slightly different estimations based on random-effects panel data and dynamic panel data, variable coefficients are of the same sign.

Variable	Mean	SD	Minimum	Maximum	Sample size
y	1.92	5.92	−1.6	4.3	144
pgdp	13.13	7.23	0.08	23.71	144
ind	0.99	0.67	0.50	4.03	144
urb	0.32	0.25	0.10	0.98	144
ru	3.44	0.70	1.21	4.57	144
w	1.19	0.11	1.01	2.00	144
p	1.03	0.02	0.97	1.09	144
lnhp	8.53	0.56	7.58	10.01	144
pub	0.37	0.15	0.26	2.09	144
lnmw	6.67	0.40	5.97	7.61	144

Table II.
Descriptive statistics
of variables in the
regression equation

Independent variables	(1) Random effects	(2) Fixed effects	(3) System GMM
pgdp	0.0245* (0.0121)	0.0200 (0.0158)	0.0132* (0.0074)
ind	1.8686 (1.7635)	2.4100 (6.1803)	6.5632 (5.4078)
urb	2.6155** (0.9420)	7.3590 (9.9521)	1.9331* (1.7243)
ru	−0.1826* (0.1013)	−1.0500 (2.9326)	−0.5411* (0.2742)
w	−1.3013*** (0.3426)	−1.3568** (0.5814)	−1.6152** (0.6230)
p	−1.9345 (9.3325)	7.246 (2.5519)	−1.7825* (0.7208)
lnhp	−0.7801* (0.4207)	−3.0514 (3.0113)	−3.9123** (1.2614)
pub	−2.0678*** (0.6031)	−4.9272*** (0.9136)	−2.1655* (1.1213)
lnmw	2.1610* (1.2150)	2.5194* (1.1459)	1.7021* (0.8801)
L.y			0.0689*** (0.017)
Constant	3.4338 (19.6388)	2.9385 (4.1872)	7.86 (5.34)
n	144	144	112
Wald value	82.72		270.74
p-value of Wald value	0.00		0.00
F-value		4.98	
p-value of F-value		0.003	

Notes: Robust standard errors are shown in the parentheses. To be on the safe side, this paper has also presented fixed-effects estimation. *,**,***Refer to passing the significance test of 10, 5 and 1 percent levels, respectively

Table III.
Regression results
for factors impacting
pro-poor growth

It could be seen from Table III that per capita GDP coefficients are all positive and significant, meaning that a certain level of economic growth is an important precondition for pro-poor growth. As one should make the cake bigger before dividing it, economic growth is essential for raising income. To achieve common prosperity and make growth more pro-poor, policymakers should focus on sustained and stable economic development. With regard to Equation (1), the coefficient of variation of per capita GDP stands at 0.0245. In other words, when per capita GDP growth rate increases by 1 percent, pro-poor index is up by 0.02. The industry coefficients are all positive but insignificant while employment coefficients are all positive and significant, standing at 2.6155 in Equation (1). It suggests that 1 percent increase in urban employment comes with a significant pro-poor index growth of 2.6155.

In terms of economic size and structure, stable economic increase is conducive to pro-poor growth. However, in the current phase, it is outweighed by structural adjustment. The industry coefficient is not significant but regression analysis shows that urban employment plays a bigger role than economic output. It provides clear policy implication

that the new form of urbanization featuring higher population density should be carried out to promote shared development. According to China's National Bureau of Statistics, urbanization measured by the number of permanent urban residents reached 57.4 percent in 2016, marking an increase of 4.8 percentage points compared to the end of 2012. With new people-centered urbanization, those who have left the rural areas should be encouraged to settle and work in cities. Moreover, city clusters with dense population and modern infrastructure need to be built for human resources improvement, economic boost and promotion of collaborative and shared development.

In addition, the coefficient of registered unemployment and that of wage growth are negative and significant, pointing to the fact that the labor market is directly linked with pro-poor growth. First, higher unemployment reduces the pro-poor nature of growth. In Equation (1), the coefficient for registered unemployment stands at −0.1826, meaning that a 1 percent increase in unemployment leads to a decline of pro-poor index by 0.1826. Second, the coefficient of wage growth is also negative. It suggests that more rapid wage increase comes with increasingly weakened pro-poor growth, which may sound counter-intuitive. Given that the sample period is from 2007 to 2015 when China faced downward economic pressure, overemphasis on wage increase could lead to profit erosion, heavier costs and lower productivity. Wage is more inelastic than profit margin and more discussion is needed to address the relationship between the two variables. A comprehensive analysis of the control variables and labor market indicators makes the case for a shift of development mentality. Efforts should be made to build a macro-policy system centered on higher employment and to improve structure of the resident income by enhancing the proportion of business income (Fan and Xie, 2017).

The results also shed light on price factors in primary distribution. Equation (1) studies the impact of price changes on pro-poor growth. In particular, 1 percent increase of CPI comes with a decline of pro-poor index of 1.9345 but the coefficient is not significant in Equation (1). Based on dynamic panel model, Equation (3)'s estimation has significance and the variable sign remains the same. This shows that price changes have a key impact on pro-poor growth and rapid price increase affects low-income groups more than high-income groups (Zhou *et al.*, 2011). Therefore, from the policy perspective, maintaining price stability is an important leverage for pro-poor growth. The government should follow CPI changes, especially the fluctuation of core price level. In Equation (1), the coefficient of housing price is −0.7801, making evident the negative consequence caused by excessively high housing price. Therefore, a pro-poor initiative is to create virtuous interaction between land resources integration/supply and housing price through institutional innovation.

With regard to redistribution factors, the public spending regression coefficients are stable in the three equations and the estimation in Equation (1) is −2.0678. The minimum wage variation coefficient stands at 2.1610, suggesting that 1 percent increase in minimum wage leads to pro-poor index going up by 2.1610. A contrast of the regression coefficients of the two variables shows that not all redistribution factors are pro-poor. As a way of "dividing the cake," public spending is generally considered favorable to the poor. However, different public spending structures generate different pro-poor results (Luo, 2011). Due to traits of high-income groups, they directly benefit more from the government's spending than low-income groups. Since the minimum wage is designed to protect unskilled workers, it produces better pro-poor growth. The contrast also gives a clear policy signal that redistribution policies should be calibrated to take into account traits of unskilled, low-income groups and that improving public spending structure can better serve pro-poor growth.

By controlling per capita GDP and structural variables, the analysis of primary distribution and redistribution reveals two keys to pro-poor growth. One is carrying out new urbanization with people at the center and the other is making redistribution policies more targeted.

4. Conclusion

Shared development enriches the meaning of common prosperity as a goal and approach. On the path toward common prosperity based on shared development, it is important to accelerate income growth of low- and medium-income groups through collaborative and shared growth to balance growth and distribution as well as efficiency and equality. The paper uses provincial-level panel data to discuss ways of achieving pro-poor growth. In the New Normal, China's economy has shifted from high growth to medium to high growth. Focus should be placed on pursuing people-centered new urbanization, creating more job opportunities and enhancing employment as a part of primary distribution, rather than increasing salaries alone. Overly rapid salary growth could lead to erosion of profit and backfire on collaborative and shared growth. In the process of redistribution, traits of low-income groups should be considered for developing accurate policies and systems so as to achieve common prosperity.

Notes

1. The year-on-year US consumer price index is from the Wind Database.

2. The results of calculation are ranked from low- to high-income groups, which are 0.22, 0.32, 0.46, 0.60 and 0.72, respectively.

3. As many provinces do not publish rural household new income by quintiles, this paper takes urban ones to do the math.

4. Among which urban employment rate is represented by the proportion of urban employed population in the entire working population.

5. Only local expenditure is adopted due to the unclear distribution of central expenditure among localities.

6. In the Hausman test, the p-value is 0.99 and the null hypothesis is accepted.

7. The paper uses System GMM two-step estimation for the model. Sargen test p-value stands at 1.0000 and AR(2) test p-value stands at 0.4462, showing that instrumental variables are valid.

References

Cai, F. (2013), "Income distribution in China: completed and unfinished tasks", *China Economic Studies*, No. 5, pp. 3-9.

Cai, R. (2009), "Pro-poor growth: practice and experience from Vietnam", *Around Southeast Asia*, No. 1, pp. 10-13.

Chen, J. (2016), "On the internal relationship between shared development and common prosperity", *Studies in Ideological Education*, Vol. 12 No. 12, pp. 34-38.

Deng, X. (1993), *Selected Works of Deng Xiaoping*, Vol. 3, People's Publishing House, Beijing, pp. 110-111.

Fan, C. (2017), "Exploring the path towards common prosperity under socialism of Chinese characteristics", *Economic Studies*, Vol. 5 No. 5, pp. 23-25.

Fan, C. and Xie, C. (2017), "Pro-poor growth, optimizing distribution relationship and shared development", *Academic Monthly*, Vol. 3 No. 3, pp. 61-67.

Grosse, M., Harttgen, K. and Klasen, S. (2008), "Measuring pro-poor growth in non-income dimensions", *World Development*, Vol. 36 No. 6, pp. 1021-1047.

Kakwani, N. and Pernia, E.M. (2000), "What is pro-poor growth?", *Asian Development Review*, Vol. 18 No. 1, pp. 1-16.

Kakwani, N. and Son, H.H. (2008), "Pro-poor growth: the Asian experience", in Nissanke, M. (Ed.), *Globalization and the Poor in Asia*, Palgrave Macmillan, London, pp. 24-46.

Lin, B. (2005), "Government expenditure and poverty reduction in China", *Economic Studies*, Vol. 1, pp. 27-37.

Lu, Y. and Zhang, K. (2010), "Economic growth, pro-poor spending and national happiness: an empirical study based on China's wellbeing data", *Economist*, Vol. 11 No. 11, pp. 5-14.

Luo, Z. (2011), "Local government's fiscal spending and pro-poor economic growth: an empirical study based on China's provincial data", *Wuhan University Journal (Philosophy & Social Sciences)*, Vol. 3, pp. 75-80.

Marx, K. (1972), *Anthology of Karl Marx and Frederick Engels*, Vol. 3, People's Publishing House, Beijing, p. 114.

Ravallion, M. and Chen, S. (2003), "Measuring pro-poor growth", *Economics Letters*, Vol. 78 No. 1, pp. 93-99.

Research Center for the Theories of Socialism with Chinese Characteristics of the Chinese Academy of Social Sciences (2011), "Common prosperity is the sure path of building socialism with Chinese characteristics", *Journal of the Party School of CPC Ningbo Municipal Committee*, Vol. 6, pp. 11-17.

Wei, X. (2012), "Common prosperity is the fundamental principle of socialism with Chinese characteristics", *On Economic Problems*, Vol. 12 Nos 4-8, p. 114.

Xie, C., Fang, C. and Wang, Z. (2017), "Pro-poor growth in developed regions: taking the example of the Yangtze River Delta", *Journal of Nanjing University (Philosophy, Humanities and Social Sciences)*, Vol. 4, pp. 24-38.

Zhou, H., Li, P. and Cui, Q. (2011), "Multi-dimensional measurement of China's pro-poor growth and breakdown research of its source", *The Journal of Quantitative & Technical Economics*, Vol. 5, pp. 37-50.

Zhou, S., Wang, H. and Su, Y. (2015), "How can Chinese have Higher level of happiness - Based on the survey of China Index of Livelihood", *Management World*, Vol. 6, pp. 8-21.

Further reading

Holt, R.P.F. and Greenwood, D.T. (2012), "Negative trickle-down and the financial crisis of 2008", *Journal of Economic Issues*, Vol. 46 No. 2, pp. 363-370.

Piketty, T. and Saez, E. (2003), "Income inequality in the United States, 1913–1998", *The Quarterly Journal of Economics*, Vol. 118 No. 1, pp. 1-41.

Corresponding author

Fan Conglai can be contacted at: fancl@nju.edu.cn