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Globalization, decentralization and income inequality: The case of China

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ABSTRACT

The current study examines the effect of trade liberalization and expansion of foreign direct investment inflows, together with the pursuit of decentralization, on China's income inequality between 1985 and 2007. As the degrees of integration of the concerned variables are revealed to be different, Stock and Watson (1993) dynamic ordinary least squares method is employed to reveal the cointegrating relationship. The empirical evidence shows that trade liberalization has led to the higher income inequality, discrediting the Stolper–Samuelson theorem in international trade. There is mixed evidence relating to the effect of FDI inflows on income inequality. Decentralization is shown not to influence it.

1. Introduction

For the past thirty years since its economic reform, China has recorded very rapid economic growth. It has pursued globalization by attracting a huge amount of foreign direct investment (FDI) and rapid expansion of international trade values. Due to the lack of infrastructure and capital stock, China started by developing the Special Economic Zones (SEZs) Mah (2008). FDI inflows have been directed to such selected areas as the Shenzhen SEZ and international trade-related production activities have prospered in those selected areas. Rapid economic growth accompanied by FDI inflows and exports has gradually propagated to the neighboring provinces. Together with the progress of globalization, the Chinese government has gradually pursued decentralization. The share of local government expenditure in total government expenditure has risen from about 60 percent in the mid-1980s to over 75 percent in the late 2000s. In the meantime, whatever its primary cause, a significant rise in income inequality has been observed in China.

Since significant deterioration of the income inequality situation can be regarded as a serious social problem, many works have tried to reveal the causes of China's income inequality. Khan et al. (1999), without providing empirical evidence, guessed that substantial expansion of employment due to labor-intensive industrialization promoted by freer trade might have offset, at least in part, China's greater income inequality, although they did not provide empirical evidence. Meanwhile, one can also conjecture that the pursuit of globalization might have led to a rapid deterioration in income inequality in China. Several papers have tried to test whether or not the progress of globalization has been the cause of rising income inequality, including Zhao (2001), Wei and Wu (2001), Kanbur and Zhang (2005), and Ma (2006). Although most of those papers use cross-section data, Kanbur and Zhang (2005) use time series data and analyze the effect of globalization, decentralization and industrialization on China's income inequality. Although Kanbur and Zhang (2005) try to deal with the effect of globalization on income inequality, they actually analyze the effect of international trade on income inequality, ignoring that of FDI inflows. Since China has attracted a huge number of FDI inflows, omitting FDI inflows in analyzing the effect of globalization on China's income inequality may lead to the wrong conclusions.

This paper analyzes the dynamic effect of globalization and decentralization on the wage inequality of China by using annually observed, time series data. It considers the effect of globalization expressed in terms of both international trade and FDI inflows as well as decentralization on China's income inequality over the period 1985–2007. The structure of this paper is as follows. Section 2 shows the overall situation and evolution of the income inequality, globalization and decentralization of China. Section 3 shows the model and empirical evidence. Conclusions are provided in Section 4.

2. Evolution of the inequality, globalization and decentralization of China

Since its market-oriented economic reform in 1978, China's income inequality situation has seemingly deteriorated over the past thirty years. As is shown in Table 1, the decile ratio defined as the average income of the top 10 percent divided by that of the bottom

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Table 1
Changes in income inequality in China during 1985–2007.

Year	Decile ratio	RIPO ratio
1985	2.87	2.24
1986	2.98	2.28
1987	2.91	2.29
1988	3.06	2.38
1989	3.20.	2.46
1990	3.11	2.39
1991	2.94	2.31
1992	3.25	2.50
1993	3.61	2.74
1994	3.94	2.91
1995	3.78	2.82
1996	3.77	2.81
1997	4.19	3.01
1998	4.40	3.13
1999	4.59	3.25
2000	5.00	3.42
2001	5.37	3.65
2002	7.99	4.82
2003	8.50	5.11
2004	8.92	5.33
2005	9.25	5.45
2006	9.00	5.35
2007	8.69	5.21

Source: Calculated from various issues of the State Statistical Bureau, *China Statistics Yearbook*.

10 percent increased from lower than 3.0 before 1987 to 5.0 in 2000 and then to over 8.0 after 2003. The quintile ratio calculated by the average income of the top 20 percent divided by that of the bottom 20 percent increased from 2.3 in 1985 to 2.9 in 1995 and then to 5.5 in 2007. This paper introduces another measure of income inequality, which we shall call the RIPO ratio, defined here as the average income of the top 10 percent divided by that of the bottom 40 percent. It may be regarded as meaningful in a developing country such as China where huge number of poor people can be contrasted with a limited group of rich people. As is shown in Table 1, the RIPO ratio increased from below 2.3 before 1987 to between 3.0 and 3.5 in the late 1990s and then to over 5.0 after 2003.

Yang (1999) suggests that income inequality in China is mainly from urban/rural income disparity, which is due to a restriction on internal migration, government expenditure focusing on the urban sector, and institutional aspects relating to land use in the rural sector. Gustafsson and Shi (2001) show that between 1988 and 1995 income inequality rose substantially in the eastern region, but the increase was less significant in the central and western regions. Although the causes of rising income inequality in China merit research efforts, speculations and assertions had been abundant and there had been few rigorous empirical works before the 1990s Wan and Zhang (2006).

With the accumulation of statistical data, many econometric works have been reported in the past several years. Although much of the literature on income inequality in China has focused primarily on worker characteristics, such analyses are constrained by the fact that a large proportion of wage variations cannot be explained by changes in returns to workers' characteristics (Dong, 2005: 665). For institutional causes of income inequality, Wan (2004) shows township and village enterprises (TVEs) to be the major determinant of China's income inequality. That is, TVEs are more developed in richer areas. A few researchers have focused on the role of the social security system in China's income inequality. For instance, Meng et al. (2005) show that a reduction in housing rental subsidies and health coverage by the government as well as the change in the state pension system can explain the deterioration of income inequality. Hussain (2009) also notices that the recent reduction in budget spending on social security might have contributed to the rising income inequality.

The effect of globalization on income inequality can be analyzed from two aspects: i.e. trade liberalization and FDI expansion. The effect of trade liberalization on income inequality may differ depending on the economic development level or factor abundance of the country concerned. The Stolper and Samuelson (1941) theorem in international trade says that, since people with relatively abundant production factors benefit from expanded international trade opportunities, a labor abundant developing country would show higher returns to laborers and lower returns to capitalists and, consequently, lower income inequality as a result of trade liberalization. However, the opposite may be more valid if more liberal governments pursuing freer trade policies would tend to take policies not in favor of redistribution (Spilimbergo et al., 1999).

There have been many empirical works on the effect of trade liberalization on income inequality, although the results have been mixed. Beyer et al. (1999) showed that the skilled wage premium, i.e. the income gap between skilled and unskilled labor, widened in Chile due to trade liberalization. Barro (2000), based on cross-national data, discovered a positive and significant effect of the trade openness ratio on income inequality. Galiani and Sanguinetti (2003) find a significant positive relationship between import penetration and the skilled wage premium in Argentina during the 1990s. Gonzaga et al. (2006) use disaggregated data for 50 industries and show that the skilled wage premium decreased during the period of trade liberalization in Brazil.

Bigsten and Durevall (2006) apply the Johansen cointegration test and the error correction model in analyzing the changes in wage inequality in Kenya during the period 1964–2000. Their empirical evidence shows that trade liberalization reduces wage inequality. According to Abdi's (2007) estimation results based on the pooled data for developing countries, there is no significant effect of trade liberalization on the skilled wage premium. Verhoogen (2008) shows that only the most efficient firms enter the export market, and the exporters in a developing country produce higher quality goods for export than for the domestic market. Consequently, the higher trade openness ratio raises demand for skilled workers, increasing the within-industry wage gap in Mexico.

For the effect of expansion of FDI inflows on the income inequality of a developing country, the dependency theorists such as Sunkel (1973) argue that the connections of ruling groups in the dependent periphery with the core and multinational companies create a political structure which keeps wages low and concentrates development in the sector relating to international activities. The links between the core and elites in the periphery increase income inequality by raising the incomes of the elites and keeping the wages of workers low in the periphery. Many, if not most, non-governmental organizations also appear to believe that FDI inflows would lead to a widening income gap between the rich and the poor. For instance, according to Madeley (1999: 8–9), since multinational companies are usually ruthlessly efficient, such efficiency can drive small scale companies in developing countries out of business and lead to a widening internal income gap.

The mainstream economists are split with respect to the effect of FDI inflows on income inequality. According to Mundell (1957), capital inflows would increase the marginal productivity of workers in the host country (Mundell (1957)). Consequently, the poor workers' income level would tend to increase, narrowing down the income gap. Feenstra and Hanson (1997) provide a model showing that multinational companies tend to demand highly skilled labor compared with the economic development level of the concerned developing country; therefore, the wage level of the skilled workers would tend to increase compared with that of the unskilled workers. Figini and Gorg (1999) say that FDI inflows would initially increase demand for highly-skilled workers in developing countries; however, as time goes by, less skilled workers would be able to learn the technology due to the learning effect and their income level would tend to increase in the long run, decreasing the income inequality.