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Wage inequality dynamics and trade exposure in South Korea☆

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ABSTRACT

South Korea has experienced a great U-turn in its inequality trends during the past few decades. In this paper, we explore the role of international trade in its wage inequality dynamics over the 1998–2012 period, using a unique household panel survey. Our analysis reveals that most of the overall wage inequality occurs within sectors and educational groups rather than between them. However, the share in total inequality of the "between" variation across sectors and educational groups has moderately increased over time. Furthermore, we document that almost the entire aggregate wage inequality in both manufacturing and services occurs within different trade-exposure categories rather than between them, and this pattern is persistent through time. These results suggest that international trade might not be the main driving force behind the rising wage dispersion in South Korea in the last two decades.

1. Introduction

Economic inequality has taken center stage in the public policy debate in recent years. From the Occupy Wall Street movement that started out in New York on September 17, 2011 to the anti-austerity protests in Europe, there has been mounting pressure on politicians and policymakers around the globe to decisively address economic inequality. Against this backdrop, the World Bank lately diverted its focus from per capita gross domestic product (GDP) growth rates to promoting "shared prosperity" by fostering the income growth of the poorest 40% of the population in every country (World Bank, 2013).

In this paper, we focus on South Korea and explore the role of international trade in its wage inequality dynamics over the 1998–2012 period (i.e., right after the 1997 Asian financial crisis). This is an important endeavor as there has been a great U-turn in the inequality trends in South Korea during the past few decades, with the downward trend of inequality in the late

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1980s and early 1990s being reversed in the mid-1990s (GINI, 2013). As a result, the middle class has shrunk from 75.4% of the population in 1990 to 67.5% in 2010 (OECD, 2014).[1] It is not surprising then that President Geun-hye Park pledged to rebuild the middle class as part of her (successful) 2012 campaign (Samy, 2014). At the same time, total trade (i.e., imports + exports) as a percentage of GDP dramatically increased from 72.9% in 1998 to 109.9% in 2012, suggesting that international trade might have contributed to raising inequality during the period in question. And our focus on wage inequality is particularly relevant for South Korea as although its overall level of income inequality is close to the average of the OECD economies, its wage inequality is severe, making South Korea one of the worst performers among the OECD countries (GINI, 2013).

We exploit a unique household panel survey, Korean Labor and Income Panel Study (KLIPS), containing detailed information on workers' personal and employment characteristics. We conduct our analysis in several steps. We first document that aggregate wage inequality initially increased sharply and then modestly decreased in South Korea over the 1998–2012 period, reaching its peak around the mid-2000s. We subsequently attempt to quantify the relative importance of alternative possible sources of wage inequality. Our analysis reveals that cross-sectoral wage variation and inter-educational wage dispersion both increased substantially between 1998 and the mid-2000s, and moderately decreased thereafter. However, we also find that most of the overall wage inequality occurs *within* sectors and educational groups rather than *between* sectors and educational groups, which is in contrast with the neoclassical theories of international trade (Heckscher–Ohlin and specific factors models).

Next, we restrict our attention to manufacturing industries' and service sectors' trade exposure, as measured by the relative size of their imports and exports. We demonstrate that wage inequality unambiguously increased over our sample period in manufacturing industries characterized by either high exposure to international trade (i.e., having both high import and high export activity) or low trade exposure (i.e., having neither high import nor high export activity). Wage inequality also increased substantially in high-import industries (i.e., industries characterized by high-import only activity) over 1998–2008, but sharply declined thereafter, whereas it remained relatively constant in high-export manufacturing industries (i.e., manufacturing industries having high-export only activity) during the entire 1998–2012 period. Regarding services, we find that wage inequality initially increased sharply within both high- and low-trade-exposure service sectors, but then decreased within the latter, whereas it remained relatively stable within the former. Moreover, we show that almost the entire aggregate wage inequality in South Korea in both manufacturing and services during the 1998–2012 period occurs *within* different trade-exposure categories rather than *between* them, and this pattern is persistent through time, suggesting that international trade might not be the main driving force behind the rising wage dispersion in South Korea in recent years. Finally, we perform numerous robustness checks. It turns out that the conclusions on the contribution of the "within" component to total wage inequality in both manufacturing and services are very robust.

An extensive literature has looked at wage inequality dynamics around the globe. A number of these papers have provided empirical findings suggesting that the neoclassical trade theory can provide at best a partial explanation for the observed wage inequality patterns, which is in line with our findings. For example, many papers have documented that a significant part of the aggregate wage inequality (or the change thereof) can be explained by within-group wage inequality—i.e., wage inequality among workers with the same observable characteristics (for instance, education and labor market experience)—or wage inequality within occupations, sectors, and sector-occupations (see, for example, Akerman, Helpman, Itskhoki, Muendler, & Redding, 2013; Autor, Katz, & Kearney, 2008; Helpman, Itskhoki, Muendler, & Redding, 2017; Juhn, Murphy, & Pierce, 1993; Lemieux, 2006). Moreover, there is ample evidence that wage inequality increases in both developed and developing countries in the aftermath of trade liberalization (see, for instance, Goldberg & Pavcnik, 2007). This contradicts the Stolper–Samuelson theorem, which predicts that the skilled–unskilled wage ratio should rise in skill-abundant countries but fall in unskilled-abundant countries following trade liberalization.

There is also a limited literature on inequality dynamics in South Korea. For example, Mah (2003) provides evidence that neither changes in the openness ratio nor those in FDI inflows have a significant influence on income distribution in South Korea over 1975–1995. On the other hand, Sato and Fukushige (2009) demonstrate that during the same period (i.e., 1975–1995), the opening of goods markets reduces income inequality in South Korea in both the short run and the long run. We differ from the past literature on inequality dynamics in South Korea in two important respects. First, our focus lies in highlighting that most of the aggregate wage inequality in South Korea occurs within sectors, educational/skill groups, and trade-exposure categories rather than between them. Second, to the best of our knowledge, this is the first paper to exploit the KLIPS dataset.

The remainder of the paper is organized as follows. In Section 2, we introduce our data. In Section 3, we initially present an overview of wage inequality in South Korea over 1998–2012, and then systematically quantify the relative significance of alternative possible sources of wage inequality. Finally, Section 4 concludes.

2. Data

The principal source of the data used in this paper is the KLIPS dataset, Waves 1–15, which is a panel survey of Korean households and individual members of the households living in urban areas. The survey is conducted annually under the

[1] The middle class is defined as those with an income between 50% and 150% of the national median.