New Imported Inputs, Wages and Worker Mobility

Paolo Naticchioni (Roma Tre University and IZA)

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The recent globalization wave has been characterized by an upsurge of trade in intermediate inputs (Feenstra, 1998). This has been associated with a sizable increase in the number of new imported intermediates worldwide (Broda et al., 2006; Goldberg et al., 2009; Colantone and Crin`o, 2014). A large literature has focused on the effects of the arrival of new imported inputs in a country. In particular, several studies have shown that imported inputs lead to productivity gains (e.g. Amiti and Konings, 2007, and Halpern et al., forthcoming), and foster the introduction of new domestic products (Globderg et al., 2010, and Colantone and Crinò, 2014). Much less attention has instead been paid to the labor market effects of new imported inputs, with the notable exception of Amiti and Davis (2011), who have found lower input tariffs to determine wage increases at importing firms.

In this paper, we provide the first extensive assessment of the effect of new imported inputs on wage dynamics, on the skill composition of the labor force, and on the reallocation of workers across firms and industries. We employ matched employer-employee data for Italy. These data are sourced from INPS, the Italian Social Security Institute. We have information on more than one million manufacturing workers, spanning the period 1995-2007. The dataset includes a rich set of information at the individual level: age, gender, occupational status (e.g. production worker, non-production, manager), region of work, wage, tenure within the firm. Furthermore, for each firm we know the size in terms of employment, the average wage paid to the different categories of employees, and the industry of activity.

We complement these data with a large set of industry-level variables, at the NACE 2-digit level. Most importantly, we exploit information on the arrival of new imported inputs in each industry (i.e. an entry rate), as retrieved by Colantone and Crin`o (2014). The identification of new inputs is based on Eurostat-COMEXT data, at the 8-digit level of disaggregation.

In particular, a new imported input is identified as a new imported *variety*, i.e. a product code-trading partner combination. In order to isolate the exogenous variation in the arrival of new imported inputs in Italy, we employ as an instrument the average entry rate of new imported inputs in all the other countries of the European Union, at the industry level. This instrument is meant to capture the variation in the arrival

of new imported inputs which is due to supply shocks in partner countries, rather than to domestic shocks in Italy, in the spirit of Autor et al. (2013, 2014). Several robustness checks on the identification strategy are provided in the paper.

In the first step of our analysis, we investigate the impact of new imported inputs on firm-level outcomes. We find new imported inputs to have a positive impact on the average wage paid by firms. Such a positive effect is driven by two factors: (1) an increase in the white collar/blue collar ratio, and (2) an increase in the average wage of blue collar workers, while that of white collars is not affected. In the second step of the analysis, we focus on individual-level outcomes. We find that the increase in the average wage of blue collar workers at the firm level is driven by the displacement of the lowest paid workers. In fact, we do not find any impact of new imported inputs on the wages of continuously employed workers, both for blue collars and for white collars. Instead, when focusing on switchers, we find that the probability of a job-to-job switch in response to the arrival of new imported inputs is higher for low paid blue-collar workers.

Overall, our findings provide evidence of an upgrading of the skill composition of the workforce by firms in response to the arrival of new imported inputs. In the last part of the paper, we investigate the relation between new imported inputs and several measures of assortative matching at the industry level, based on Abowd, Kramarz and Margolis (1999).

The results suggest that the arrival of new imported inputs improves the matching between firms and workers.

Authors: Italo Colantone (Bocconi University), Alessia Matanoy (University of Barcelona), Paolo Naticchioniz (Roma Tre University and IZA)