

Wage Effects of Mergers and Acquisitions in Developing Countries: Evidence from Brazil

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Abstract

I use 1.1 billion matched employer-employee records merged with corporate tax filing information to estimate the effects of establishment mergers and acquisitions in Brazil between 2003 and 2017. By means of a staggered, multiple treatment event study design I show that, contrary to the evidence found in developed economies, employer concentration via M&As in Brazil cause an immediate increase in wages. My result shows that despite the increased employer concentration induced by mergers, workers can benefit from having fewer, but nonetheless bigger and more productive, employers.

Keywords: Mergers and Acquisitions, Labor Market Concentration, Monopsony, Local Labor Markets, Informal Labor Markets

JEL Codes: J42, J46, K21, L49

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1 Data

The data required for this paper is comprised of two different administrative releases from the Brazilian federal government. The first one is the *Relação Anual de Informações Sociais* - RAIS, the main source for worker and job characteristics information. The second piece is a business database called *Dados Públicos CNPJ* - DPC, from which I extract the list of establishments that went through a merger or acquisition. More detail about each dataset is provided below.

1.1 RAIS

RAIS is a matched employer-employee administrative record provided by the Brazilian Ministry of Labor on a yearly basis and it covers the entirety of the country's formal labor market, which employs around 70% of the workers (Hallak Neto et al., 2012). In terms of the U.S. Census database, RAIS is similar to the Longitudinal Employer-Household Dynamics - LEHD.

Each observation of RAIS contains separate worker and establishment identifiers. As for the workers, the available characteristics are color/race, gender/sex, age, and educational achievement. About the establishments, it is possible to see their location at city level, and 4 digit industry sector. The data also contains variables related to the job itself, such as average monthly earnings, weekly hours, dates of admission, and date of separation - in case the job was terminated within that year. Differently from the U.S. Census LEHD, RAIS also reports the occupation of the worker in that particular job.

I use the variables of location, industry sector and occupation to delineate local labor markets. More details about the local labor markets are provided below.

For this paper, I use RAIS in years ranging from 2002 up to 2017, totalling more than 1.1 billion observations. Access to the data at individual level is restricted by a confidentiality agreement.

1.2 DPC

The DPC is a business registry made available by *Receita Federal*, the Brazilian tax collection agency. A counterpart to the DPC in the U.S. Census system is the Longitudinal Business Database - LBD. DPC contains information of the universe of establishments ever registered with the agency and is released on a monthly basis at their website with no confidentiality agreements required. There is a total of more than 42 million observations with years dating back to the 1800s.

From the DPC it is possible to see a establishment's identifier - the same one used in RAIS, postal code, industry sector, and partnership roll. Most crucial for this paper, however, is the variable describing the reason for termination of the business. By law, anytime a firm is acquired by or merged with another one, its identifier is retired and a new one is issued for the recently created enterprise. Therefore, merger and acquisition events can be traced, in the DCP, by the reason why a given business identifier was cancelled. Other reasons for business termination include bankruptcy and various forms of tax penalty.

1.3 Data driven identification of Mergers and Acquisitions

References

Hallak Neto, J., K. Namir, and L. Kozovits (2012, April). Setor e emprego informal no Brasil: análise dos resultados da nova série do sistema de contas nacionais - 2000/07. *Economia e Sociedade* 21(1), 93–113.