

# Micro- and Macroeconomic Impacts of a Place-Based Industrial Policy

Based on BFI Working Paper No. 2023-77, “[Micro- and Macroeconomic Impacts of a Place-Based Industrial Policy](#),” by Enghin Atalay, Federal Reserve Bank of Philadelphia; Ali Hortaçsu, UChicago; Mustafa Runyun, Boston College; Chad Syverson, Chicago Booth; and Mehmet Fatih Ulu, Koç University

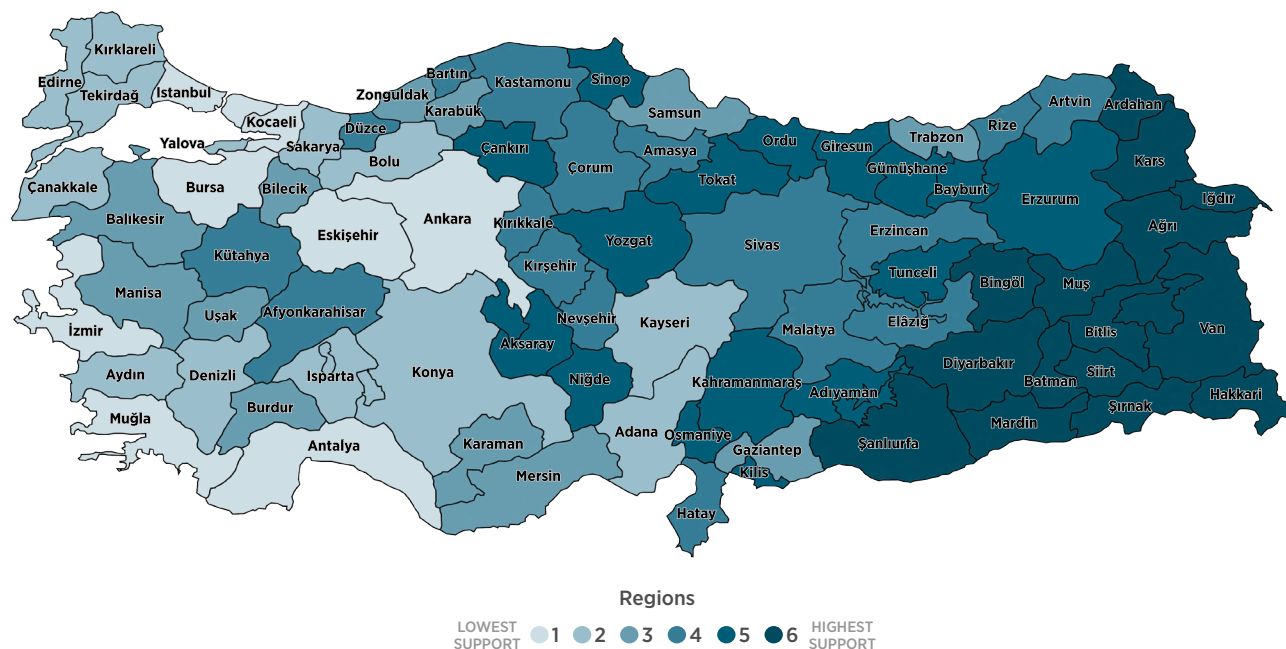
*Turkey’s Law 2012/3305 boosted economic activity among businesses in eligible industries/provinces and led to positive spillovers to the suppliers and customers of subsidized firms. In the long run, the policy reduced income inequality between regions only moderately, due to migration and spillovers.*

Place-based policies, a common tool for combatting spatial inequality, are challenging to evaluate. As a result, many economists (including in a recent [paper](#) in this series) study how best to isolate the impacts of place-based policies on their intended recipients, typically the residents of a given area. This paper joins this literature

with its exploration of the micro- and macroeconomic impacts of a prominent place-based policy in Turkey, Law 2012/3305.

Enacted in 2012, Turkey’s “Decision on State Aid in Investments” promoted investment activity, particularly

**Figure 1 • Level of Subsidy Available to Firms in Turkey**



Note: This map shows Turkey’s 81 provinces, shaded by the level of subsidy available to local firms, with Region 1 receiving the lowest and Region 6 receiving the highest level of support.

in the relatively impoverished southeast of the country, through the introduction of subsidies such as reduced corporate income tax rates, social security payment assistance, and interest rate subsidies on private loans. Firms' eligibility depended on their industry and location, with higher-need areas and sectors subsidized more heavily (see Figure for a map of Subsidy Regions).

The authors evaluate the policy using data on firms' take-up of individual subsidy items, and firm-level outcomes such as revenues, investment, employment, and their customer and supplier relationships, as well as information about migration flows across regions. They find the following:

- Industries located in provinces where they received the largest subsidies experienced exceptionally strong growth in firm entry, employment, and revenues. On average, an increase of 5 percentage points in the investment tax credit subsidy rate in an industry-province pair corresponds to a 16.2% increase in revenues, an 8.7% increase in employment, and a 3.3% decrease in marginal costs.
- Subsidies have moderate spillover effects through firms' production networks. A 5-percentage-point increase in the share of a firm's suppliers and customers receiving a subsidy corresponds to a 0.7% increase in revenues and 0.6% increase in employment for the firm itself.
- The authors use a model that accounts for the flows of workers and products across Turkey's different regions and industries to assess the macroeconomic impacts of Law 2012/3305. They find that the policy had moderate impacts on long-run wage inequality between regions. The authors consider two approaches to measuring the aggregate implications of the policy: Analyzing revenue data from before versus after the policy yields a 3.6% reduction in inequality, and applying the microeconomic results above suggests an even smaller reduction.

- The policy's impacts on wage inequality were stymied by considerable migration and trade flows across Turkey's six subsidy regions. Absent such migration, the long-run impact of the subsidy program on regional inequality would be nearly four times larger, and absent both domestic trade flows and domestic migration, the impact would be nearly seven times larger. Building on this result, the authors show that the short-run impacts of Law 2012/3305 far exceed its long-run impacts.
- From other perspectives the subsidy policy appears somewhat more favorable. Law 2012/3305 likely slowed domestic migration from the poorer eastern parts of the country to the richer (and increasingly congested) Istanbul area. In addition, the policy reduced non-employment, especially in targeted areas.

The upshot is that inter-regional spillovers — migration and input-output linkages — can limit the extent to which place-based policies achieve their intended benefits. In addition, increases in labor supply to more heavily subsidized regions may mute the impact of subsidy programs on inter-regional real wage inequality. While the authors caution against generalizing their results, which focus on a single historical episode, too widely, they also note that because inter-regional trade and migration flows are common features, their insights on the short- and long-run impacts of place-based policies on regional income inequality are likely to be universal.

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