OPTIMAL POLICY: WHICH, WHERE, AND WHY

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The paper exploits a simulation environment and its output indicators to compare the performance of "ex-ante" policy instruments across housing and social welfare domains. The simulation environment refers to a modified version of PolicySpace2. PolicySpace2 is a spatial economic agent-based model platform that includes four markets: labor, real estate, goods and services and credits, and depicts the interactions among workers, households, firms, bank and municipalities in the context of metropolitan regions. The model runs from 2010 to 2020.

Whereas the original model explores three alternative policy instruments, we added three mixed policy instruments to compare against a no-policy baseline. The policy instruments include the original proposal: i) municipalities buy houses at the market and give them to the poorest households; ii) municipalities pay a rental voucher for 24 months for poorest households; and iii) the available municipal funds to invest is distributed equally in cash for the lowest quintile of poorest households. Additionally, we propose three mixtures of percentage of investments of instruments: in equal parts; one, named focused, in which half goes to house purchase and a quarter to the other two instruments; and one in which the percentage among the instruments varies randomly for each simulation.

We then create a progressive score to contrast these six single and mixed policy instruments against a no-policy baseline. We use principal component analysis and ad-hoc socially better choices to construct our optimality score. We assume that society prefers, for example, lower inequality and higher production. We make a test of robustness.

The advantages of using a simulation include multiple indicators for distinct cities, policy instruments, and goals. Moreover, the exercise provides a counterfactual arena where we explore public investment trade-offs quantitatively and empirically – which constitutes a rare (usually impossible) policy practice. That is, we have a chance to see results that include policy and no-policy at the same time, the same environment, with the same recipients. In practice, we observe the same patient having the treatment and not having it at the same time.

Making the connection with the literature, we demonstrate with data that policymakers may avoid incongruities by defining: i) which policy instrument; ii) to apply where; and iii) towards which goal (why). This analysis uses empirical data for 46 metropolitan regions in Brazil. Thus, bringing fundaments to the theoretical debate.

Results show that scores – or success of a specific single or mixed policy instrument – depend on the rationales used to evaluate this success. Clearly, policy effects depend on what society considers their driven goals, their rationales. Such results suggest that the more factors or dimensions one takes into consideration, the harder it becomes to assess any object of study. However, optimal policy classification changes when considering different places or goals.

The analysis also demonstrates that the more inclusive in terms of results the policymaker is, the interests of more groups of citizens need to be included in the results. That is, all parties are contemplated when evaluation includes indicators from different areas. All in all, it is not trivial to decide

which policy instrument is the best, as it depends on the metric used to evaluate. Some patterns seem clear, though. When policymakers are interested in general results, mixed instruments perform better. When having clear goals, such as to reduce inequality or to boost production, single instruments prove more adequate.