Can Dynamic Targeting Mechanisms Improve the Social Value of Safety Nets?

Authors: Diether Beuermann, Bridget Hoffmann, Marco Stampini, David Vargas, and Diego A. Vera-Cossín

➡️ Traditional proxy-means tests approaches to selecting beneficiaries of social programs can exhibit higher levels of exclusion errors when income fluctuates. These errors can erode the social value of a safety net.

➡️ Expanding the coverage of the safety net reduces exclusion errors but entails either larger budgets or substantial reduction of benefits.

➡️ A dynamic targeting approach that includes updated information on labor market and other shocks can reduce targeting errors and increase the social value of the safety net at a substantially lower cost, relative to an expansion of the safety net.

CONTEXT

More than 120 low- and middle-income countries invest in cash transfer programs to support poor households, but the social returns to these investments crucially depend on accurately targeting beneficiaries. However, income fluctuations may not be reflected in traditional targeting approaches such as proxy-means tests (PMT) because they mostly focus on assessing the permanent component of income. Considering the 1.3 billion households globally that are vulnerable to sliding into poverty, the key policy challenge is how to design methods for selecting beneficiaries of social programs when income is volatile and the target population for social protection is dynamic.

PROJECT

Using a unique panel dataset following a random sample of households registered in Colombia's social registry, we study the social value of the safety net under different targeting regimes. First, we assess the performance of a traditional static PMT before and during an episode of severe economic decline, when the permanent component of income is likely to be a worse approximation for families' economic well-being. Second, we evaluate policy-relevant alternative targeting methods. Third, we consider how budget and political constraints that governments face—in tandem with their preferences for redistribution—affect the choice of targeting method.

RESULTS

We find that the exclusion error increases from 30% in 2019 to 35% in 2020 under the benchmark static PMT approach. As the benchmark PMT approach uses information to predict the permanent component of income, this approach misses substantial changes in income and fails to include newly poor households in the safety net. The results suggest that, as households suffer severe labor market shocks, the accuracy of the traditional PMT approach quickly declines.

Next, we analyze a second approach that expands the safety net using the static benchmark PMT to predict incomes. Relative to the benchmark scenario, the expansion of the safety net reduces the exclusion error by almost 50%. This reduction comes at the cost of larger inclusion errors. Given the fixed budget, the inclusion of additional households implies a decline in the average per-household transfer size. For social welfare functions that place a higher weight on the poorest households, the reduction in the exclusion error makes up for the decline in transfer size, achieving levels of social welfare higher than those under the benchmark scenario. These gains in welfare disappear for more neutral social welfare functions. We do not find substantial improvements in targeting errors and welfare when we compared the benchmark PMT approach to an approach that allows for on-demand asset ownership updates during economic downturns.

SOCIAL SAFETY NET

Non-contributory support provided to vulnerable families and individuals experiencing poverty and destitution.

Finally, we evaluate a dynamic targeting approach that predicts changes in income based on labor market changes and other shocks to complement the benchmark PMT. This approach reduces exclusion errors and increases welfare (by 12%) relative to the benchmark scenario. We also show that the welfare gains from a dynamic approach can be larger when more flexible econometric models are used.

POLICY IMPLICATIONS

Governments often target beneficiaries for social programs based on proxies of the permanent component of income. As income fluctuates, prediction errors increase, and so do the targeting errors, as well as the social value of the safety net. Governments have several options to improve targeting when income fluctuates. While no option is a panacea, the choice of the targeting tool depends on the preferences for redistribution of governments, as well as budgetary and political constraints. Expanding the safety net to include newly poor households will guarantee a basic income for the poor at the cost of reducing the average transfer size for all beneficiaries. If governments prioritize ensuring a minimum income to the poorest households, this approach is appealing. However, this approach entails high levels of leakage to non-poor households. A more budget-conscious government or a government without the political capital to reduce the size of the transfers may prefer investing in a dynamic targeting approach that periodically updates information on economic and labor-market shocks. While the choice of alternative targeting tool depends on the context, what is clear is that relying only on static approaches to target beneficiaries can erode the social value of the safety net when income fluctuates.

PROXY-MEANS TEST

The use of information on household or individual characteristics correlated with welfare levels in a formal algorithm to proxy household income, welfare or need.

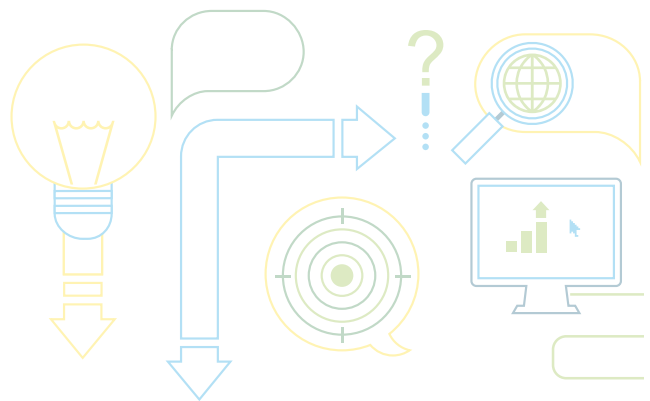**FIGURE 1. Exclusion Error Using Proxy-Means Tests and Alternative Approaches, 2019-2021**
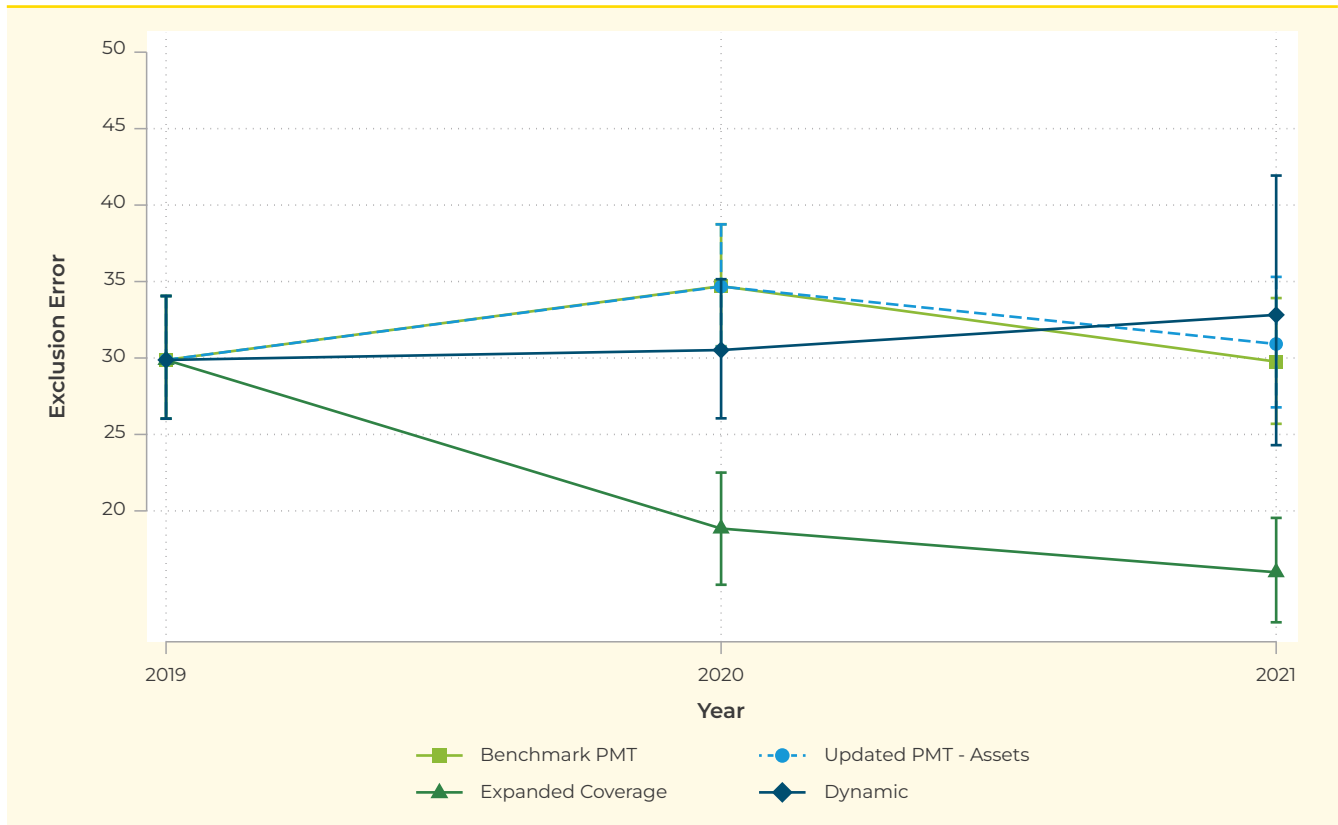
Key Concept

EXCLUSION ERROR

The percentage of target beneficiaries of a safety net who do not receive benefits from the safety net.
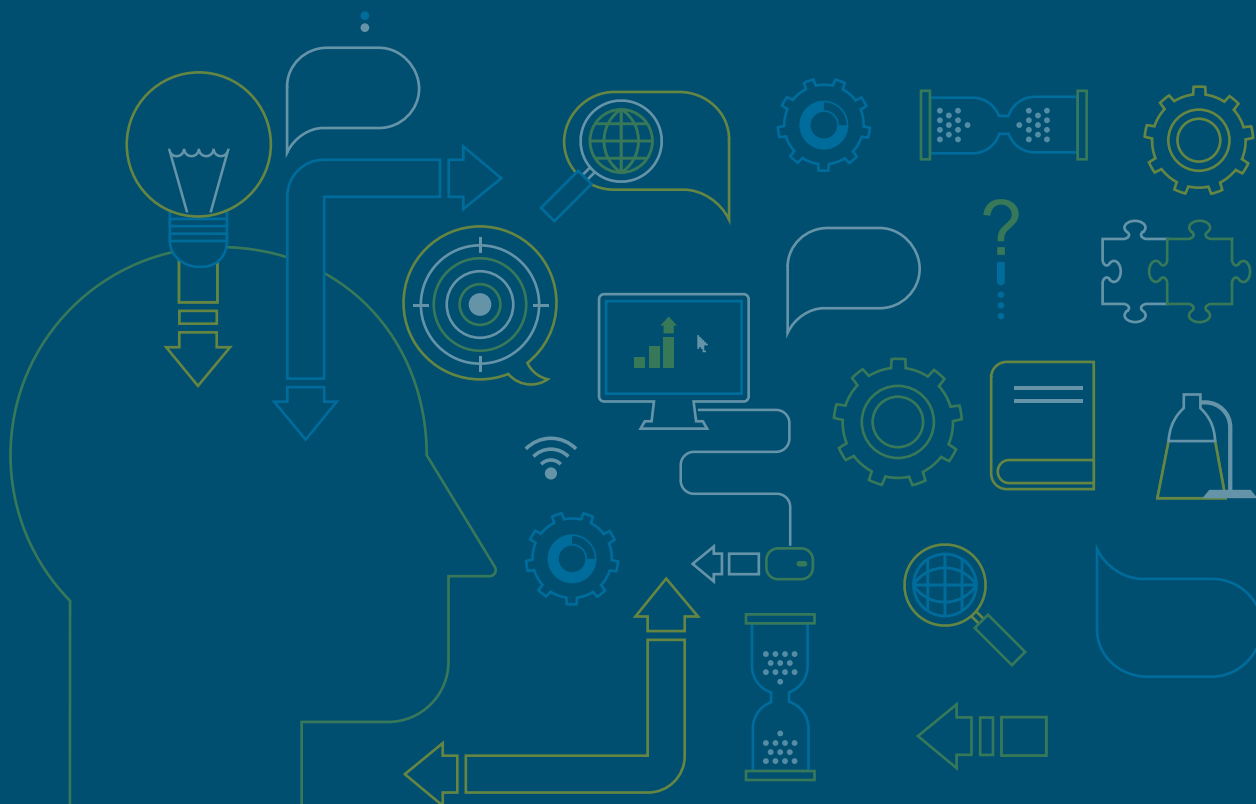
FULL STUDY

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