

Tackling vulnerable households through a working tax credit scheme: a feasible alternative to cash transfers

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Referee report on

“Working Tax Credit Schemes in Developing Countries: A Feasible Alternative to Cash Transfers”

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1. Overall view and recommendation to the editor

The purpose of this paper is to discuss the effects on inequality, poverty, and employment of implementing a tax credit versus a conditional cash transfer to increase the income of the neediest families. The paper simulates the application of a work-income tax credit, like the US EITC, using Chilean data. In addition, they take advantage of an existing ex- ante evaluation of a CCT program recently implemented in the country to compare the costs and benefits between these two alternatives for implementing this social policy. Also, the paper discusses potential spillovers and analyzes the sensitivity of the findings to different assumptions about the elasticity of participation, informality and unemployment, parameters that may vary across developing countries.

As a main conclusion, the authors find that a tax credit would increase labour participation while poverty and inequality are decreasing. Additionally, the results shows that the tax credit is much more effective at reducing poverty in urban than in rural areas, and in the north than in the south of the country. Finally, the results also show that an income tax credit is much more cost-effective than a CCT program to increase family income at the bottom of the income distribution.

Regarding to contribution, I find the results relevant, to the extent that they provide an interesting complement to the literature on in-work benefits. In particular, the reviewed paper contributes to a growing line of research, paying attention to a topic of undoubted relevance such as the quantification of the indirect effects and the redistributive capacity of this type of social policy programmes. The underlying debate is the use of the tax credit versus conditional cash transfer, taking into account the collateral effects especially in aspects related to welfare, basically measured as improvements in education and health, as well as aspects related to labour supply incentives and disincentives.

In my opinion, it is a good paper, which is produced to rigorous scientific standards. In general terms the paper is well structured and clearly written. The research aim is clear and well defined. Consistently with the above explanations, this paper can fit in the HPE- RPE's editorial guidelines. However, I will explain below, I find some shortcomings in the current version of the manuscript that would require a major revision of the paper before publication.

Main Comments

a) My first main objection is related to the fact that both the abstract and the introduction do not mention the target group of the WTC simulation. This target population is women between 18 and 60 years of age, included in the first six income deciles, without a partner and with or without children under 18 or between 19 and 23 years of age who are studying and who live with the mother.

I think that this is not a minor issue, because it does not simulate a generic alternative to the CCT but is focused on a group with certain characteristics. This issue should be included in both sections. In this sense, the title of the paper may also be misleading.

Answer

Thanks for pointing out this issue. We have now added this information both in the abstract (in a condensed form) and in the introduction. As you point out, our target population is 18-60 years old women, from the first six income deciles, who report that they are not married or living with a partner, with and without eligible children (under 18 years old; between 19 and 23 years old if they are studying; disabled children living with the beneficiary). We choose to target the policy on this population because single mothers have traditionally been the main beneficiaries of EITC programs and because in Chile all social programs target the first six income deciles of the income distribution.

*We have slightly changed the paper title to address your concern. Our new title is: **Tackling vulnerable households through a working tax credit scheme: a feasible alternative to cash transfers**. But we are more than willing to accept any other suggestion regarding this matter if the referee or editor is not satisfied with this new title.*

b) In the text it is stated quite categorically that “developed economies have been using the tax system as the main infrastructure for implementing social policies as well as redistributing income for the last four decades” (pg 3). In relation to this issue, I miss some prior discussion on the use of budgetary expenditure programs as a way of implementing social policies, also assessing their redistributive capacity, which in many cases is important.

Answer

Thanks for this observation. We have changed this paragraph to accommodate your suggestion. We agree with you that developed economies have a long history of implementing social protection policies through cash transfer programs and policies aimed at establishing social safety nets for increasing access to information and services, protecting the elderly, and supporting people while they look for work. And it is also true that in high-income countries, conditional monetary transfers have been more frequently related to unemployment benefits, with conditions attached to active labor market behavior. And only recently some developed economies (the US and some European countries) have been implementing some CCT policies aimed at giving families incentives to invest in both health and education for their children (Medgyesi and Temesváry, 2013), like what most underdeveloped countries have been doing

since the '90s. The point we wanted to make here was that despite these other program infrastructures, developed economies have been pioneered at using the tax system as the main infrastructure for implementing social policies as well as redistributing income. And there are some advantages of doing so, that are highlighted in the text.

c) In the text or in a footnote, the programs to which the following statement refers should be specified: “For instance, some of these countries are currently implementing tax credits for other types of income or expenditures e.g. Chile, Mexico, Cyprus, Slovenia, and South Africa” (pg 5).

Answer

This is a good suggestion. In the new version of the article there is now a footnote with some examples for each country (see footnote 5 in page 3).

d) Regarding the working tax credit proposal presented for Chile, the authors design an EITC aimed at women, especially single-parent families. My comment on this choice is that by ignoring the household, a household can consist of several families, it does not consider the aggregate income of the household. Both modalities have, a priori, advantages and disadvantages: individual programs are a priori more efficient since they do not penalize the labor participation of a possible second income earner in the household. However, family schemes have advantages if the principle of horizontal equity is considered: with an individual EITC, income can be transferred unequally to households with the same economic capacity but with a different number of members working. Perhaps a comment on this aspect should be included.

Answer

Thanks for this comment. By design we are targeting individuals, so eligibility requirements will ignore the aggregate income of the household and its composition (we care about how many children each woman has and her income). Although it is true that ignoring this possibility might compromise the principle of horizontal equity, as two households with similar economic capacities might receive different amounts of income transfers, we believe this is the right way to perform our simulation as the program targets individuals and aims at improving income while inducing labor market attachment. It might not be feasible to implement a program based on households, as it might be more difficult for the tax system to have this information in place. On the contrary, the tax authorities can merge tax data with birth data to assess how many children each woman has. We are in any case, addressing this issue in footnote 16 in page 8.

e) Another issue concerns the form of EITC financing considered to be less distortionary, or rather suggested, as it is not specified in the manuscript. On page 8 the following comments are made: “to fully assess the implementation of the income tax credit, one must also consider the program’s funding policy (Mirrlees et al., 2010) ... Therefore, among the available financing

alternatives, those that should be favored are progressive taxation, which would even further improve inequality, or, even better, replacement of social programs with bad impact evaluation or only achieving short-term changes without affecting families' permanent capacity to generate higher independent income". In my opinion, the proposal should be made more concrete.

Answer

There are several options to finance the proposed EITC and it is beyond the scope of the article to propose a specific one. For example, the income tax could be made more progressive through many alternatives: increasing the tax rates in all brackets, creating new tax brackets for the top 3%-1% incomes, reducing the income thresholds for all brackets, or using any combination of these alternatives. The tax system could be made more progressive also changing the mix of taxes, for example, reducing the VAT rate and increasing income taxes (corporate and/or personal). The EITC could also be financed by reducing government expenditures, for example, in defense or eliminating specific programs that have a poor impact evaluation. It could also be financed with a mix of reducing expenditures and increasing taxes. This issue is now discussed in the paper (see footnote 34 in page 17).

In future research, it would be interesting to evaluate different options and design a specific proposal, which is something that is mentioned in the conclusions.

f) The EITC proposal in the paper includes an annual periodicity. However, a greater periodicity of payments seems likely to improve the financial situation of families (Maag et al., 2021) (even though in the US they are implemented with a one-time annual payment). If it is feasible, it would be interesting to incorporate it in the simulation. If it is not possible, at least in a simple way, this possibility should be mentioned in the text.

Answer

We agree that it would be interesting to observe how a month-to-month schedule could smooth consumption and likely improve the financial situation of families. Unfortunately, labor income is observed for the month prior to the survey only and we do not have the information needed for this type of analysis.

In page 9 (fifth paragraph in section 4), we explain the data and assumptions that we use to calculate the annual taxable income. We also comment on this issue in footnote 21 in page 9.

If needed, we can further elaborate on this issue.

g) The results in terms of poverty and inequality reduction turn out to be better in the northern than in the southern regions of Chile, and in urban versus rural areas (pg 14). Have the reasons for these results been investigated? The paper should try to shed light on what factors may be driving these results, and comment on them. If no evidence is found, it should be commented on in the text.

Answer

Note that our simulation parameters do not change by region or type of zone (rural or urban areas). Given this, any heterogeneity of the results by region or zone might be related to the regional/urban/rural differences in coverage and intensity of the policy, which depends on income levels, preexistent labor force attachment of women, and/or how prevalent the different beneficiary types are across regions/zone. Our results are consistent with the literature for the US, but as you point out, multiple factors may be driving these results. We have commented on this on the paper. Our intention was just to describe that we had heterogeneous results by region/zone as it is reported in the literature. Evaluating the mechanism behind these heterogeneities is beyond the scope of this paper. But we understand your concern and we are open to omitting this analysis if the referee or the editor thinks it's best to do so.

h) The paper compares the administrative costs associated with both EITC and CCT programs. However, the differences, if any, in the monetary costs of the two programs are not analyzed. It seems reasonable that the work should include some consideration of this.

In section 7 (in the previous version of the paper, it was section 6), we show how effective our policy is in terms of increasing average income in the first six deciles and we discuss the direct costs of an EITC and a CCT (the cost of providing the cash transfers). In particular, we present evidence that the per capita cost of instrumenting an EITC scheme is smaller (15%-20% depending on the scenario) than the prevalent CCT program in Chile called IEF. It is true, though, that instrumenting the EITC in its current form, involves more resources (see table 11 in text) as the number of beneficiaries under our simulations is larger than the ones covered by the IEF. However, when evaluating the number of resources that are needed under the different scenarios to get a one percentage point reduction in the poverty rate, in all our scenarios, the EITC dominates the CCT (see new Table 11 in text). A similar result is found when calculating the cost of decreasing the Gini coefficient (not presented in the text): the reduction in Gini coefficient under the IEF and Scenario A, is 0.003, but 0.008 under Scenarios B and C. So, the cost of a reduction of a 0.01 in the Gini coefficient is US\$ 563M under the IEF, but US\$751M, US\$ 370 M and US\$ 339M respectively under scenarios A, B, and C. In this case, Scenario A is dominated by IEF.

Note, however, that we are not presenting here estimates for the administrative costs of these two programs, but we discuss their pros and cons. We note that the EITC uses the information and institutional capacity of the National Tax Office, which might significantly reduce administrative costs, unlike traditional transfer programs that must generate information to assign benefits. Additionally, the tax system has the advantage of being less subject to fraud, as all sources of formal income are subject to third-party reporting to the tax authorities, allowing better targeting and implementation at a lower cost. We know that this might not always be the case, especially in underdeveloped countries, but in the case of Chile, the tax system was already used for a similar purpose during the Covid-19 pandemic. The main subsidies to alleviate the reduction in income during the pandemic were implemented through the tax system. For this purpose, all sources of income reported to tax authorities over previous years and during the pandemic were considered to determine the beneficiaries and the magnitude of the subsidies. The experience was quite successful in terms of targeting and

in terms of speed of transferring the subsidies to the beneficiaries. For this reason, we argue that in the case of Chile it makes sense to implement an EITC through the tax system as the infrastructure for doing it has already been implemented and successfully used for similar purposes.

i) One issue not addressed in the paper with respect to the associated monetary costs is that in the case of the EITC, a large majority of recipients could subsequently become net contributors to the program, which would reduce the net cost of the program (see on this, Bastian and Jones, 2019). In my view, the budgetary cost of these programs is a key issue in their design and introduction. Some consideration should be given to this issue.

Answer

In general, there is no doubt that this issue should be considered. However, in the case of Chile around 75% of taxpayers are in the exempted bracket of the income tax. Therefore, as the beneficiaries of the simulated EITC belong to the lowest six income deciles, they would never become contributors. For this reason, the issue was not considered. This is clearly stated and explained in the new version of the paper (see page 11).

3. Minor comments

a) The literature is unanimous in highlighting the simplicity of the design of these transfers (EITC and CCTs) as a condition for improving the percentage of potential eligible beneficiaries who end up being effective beneficiaries of the program (Goldin, 2018). This issue is not considered in the text.

Answer.

Thanks for pointing this out. We are now addressing this issue in section 7, footnote 33. We are also highlighting Goldin (2018) observation that “one of the main arguments for administering social welfare benefits through the tax code is that they yield higher take-up rates than when administered on their own”, what is an argument in favor of using the tax system.

b) One issue that could be highlighted regarding the positive externalities of the EITC on the labour market is that increasing female labour participation can contribute positively to improving the perception of the social value of working women (Bastian, 2020). This gender aspect should be highlighted.

Answer

Thanks for pointing out this paper which is relevant for the discussion about the benefits of using an EITC and increasing female labor participation. The paper and its main result are

now mentioned on page 3.

c) On page 3 (last paragraph), the U.S. is listed twice as a country with a refundable tax credit system targeted at low- and moderate-income families.

Answer

Thanks for pointing this mistake out. It is corrected in the new version of the article.

d) The structure of the manuscript is dense for the reader, especially sections I (Introduction). In this respect, the wording should be lightened up.

Answer

Thanks for This comment. We have rewritten several passages of the paper. We have also changed both the introduction and the conclusions.

References (no included in the manuscript)

Bastian, J.E., y Jones, M.R. (2019). Do EITC Expansions Pay for Themselves? Effects on Tax Revenue and Public Assistance Spending. Mimeo

Bastian, J. (2020). The Rise of Working Mothers and the 1975 Earned Income Tax Credit. *American Economic Journal: Economic Policy*, 12(3): 44-75. <https://doi.org/10.1257/pol.20180039>.

Goldin, J. (2018). Tax benefit complexity and take-up: lessons from the earned income tax credit. https://www-cdn.law.stanford.edu/wp-content/uploads/2018/03/Goldin-Tax_Benefit-Complexity-3-1-18.pdf

Maag, E., Congdon, W.J., y Yau, E. (2021). The Earned Income Tax Credit: Program Outcomes, Payment Timing, and Next Steps for Research. OPRE Report #2021-34, Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services

Answer. All these references are now included in the manuscript.