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Are government transfers harmful to economic growth? A meta-analysis☆

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ABSTRACT

A common perception is that government transfers are harmful to economic growth. However, existing empirical evidence on this point is mixed. Potential reasons for these conflicting results include differences in the level of economic development of the countries studied, different estimation methods and different measures of government transfers. By conducting a meta-analysis of 149 estimates reported in 23 studies, we sought to understand if – and if so, to what extent – government transfers are harmful to economic growth, as well as how important the abovementioned reasons are in explaining different findings in the literature. We found that government transfers are more detrimental to economic growth in developed countries compared to less-developed countries because such transfers can have a non-monotonic effect on growth. When government transfers are substantial, as they are in developed countries, they tend to reduce growth. We also found that the growth effects of government transfers are sensitive to the measurement of the transfers, i.e., studies that use unemployment benefits instead of social security tend to report a stronger negative growth effect.

1. Introduction

Since government transfers involve a trade-off between social protection and economic efficiency, a common perception exists that such transfers are harmful to economic growth. Given the non-lump-sum nature of taxes, a more generous welfare programme imposes higher tax rates on workers and firms, thus discouraging workers from working and saving and firms from investing. Therefore, government transfers distort marginal rewards and relative prices (e.g., Oh and Reis, 2012) and reduce economic efficiency and growth by shifting resources into less productive activities. Some economists also argue that when individuals face uninsurable risks and borrowing constraints, government transfers can provide insurance but may reduce capital and output (e.g., Aiyagari and McGrattan, 1998; Woodford, 1990).

While there is some validity to these concerns, government transfers may not always be harmful to growth. For instance, when there are nominal rigidities as well as incomplete markets, well-targeted government transfers can increase output through a neoclassical wealth effect and/or a Keynesian aggregate demand effect (e.g., Giambattista and Pennings, 2015; Oh and Reis, 2012). Some authors, such as Zhang (1995), have shown that social security can increase growth by reducing fertility. Government transfers may also affect growth in a non-linear way. Glomm and Kaganovich (2008) showed that when social security is below a particular threshold, its increase will enhance growth because the benefit of social security on human capital investment is larger than the distortionary cost of taxes on saving. However, the opposite occurs when social security is above this threshold.

Since government transfers can affect growth through many different channels or growth determinants, such as private savings, human capital, fertility and inequality, different findings in the theoretical literature are to be expected because the overall effect of government transfers on growth depends on what the proposed channels are (see, e.g., Aghion and Bolton, 1997; Alesina and Rodrik, 1994; Ehrlich and Kim, 2005; Feldstein, 1974; Glomm and Kaganovich, 2008; Keane and Prasad, 2002; Kotlikoff and Summers, 1981; Modigliani, 1988; Persson and Tabellini, 1994; Zhang, 1995).

The empirical results of how government transfers affect growth are also mixed. Studies such as Barro (1989, 1991), Perotti (1996), Bellettini and Ceroni (2000), Zhang and Zhang (2004), and Lee and Chang (2006), among others, have demonstrated that government transfers enhance growth, while other studies have come to the opposite conclusion (see, e.g., Ehrlich and Kim, 2005; Ehrlich and Zhong, 1998; Hansson and Henrekson, 1994). Studies such as Landau (1986) did not find a significant association between government

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transfers and growth.

Such conflicting findings are not surprising because of the diverse theoretical predictions and also because countries may be at different stages of economic development; therefore, the proportion of GDP spent on government transfers may vary over time and between countries. In addition, model specification as well as estimation methods differ between studies. Thus, the debate about the relationship between government transfers and economic growth remains an unresolved issue.

The present paper seeks to synthesise the existing evidence on the government transfers–growth relationship using meta-analysis techniques to verify whether government transfers are harmful to economic growth, as is a common belief among economists. We used social security, pension, unemployment benefits and other welfare-related transfers to represent government transfers. These measures of government transfers are similar to those in Barro (1989), which used social security and social welfare expenditure to represent government transfers. We investigated not only the effect of government transfers on growth, but also sources of heterogeneity in the evidence base and whether the reported evidence was systematically related to levels of economic development, measures of government transfers, types of data used and model specification, among other characteristics.

More specifically, we contribute to the literature as follows. First, we examined whether a 'genuine' effect exists between government transfers and economic growth. We applied meta-analysis tools to deal with issues of publication bias, which arises when primary study authors search for samples, estimation methods or model specifications that yield statistically significant estimates and consequently provide a statistically valid conclusion on the effects of government transfers on growth.

Second, we examined the sources of heterogeneity in the government transfers–growth literature, such as levels of economic development, measures of government transfers, underlying theoretical models, econometric specifications and data characteristics, among others, to understand how important these sources are in explaining different findings in the literature.

Third, this paper attempts to bridge the gap in the existing literature on fiscal policies. Government transfers are a relatively unexplored fiscal variable, yet such transfers are substantial in many countries, especially in developed countries.[1] There have been many studies, including some meta-analyses, of the macroeconomic impacts of various government expenditures, including government consumption, military, education, infrastructure and total government expenditure (see, e.g., Alptekin and Levine, 2012; Awaworyi Churchill et al., 2017; Awaworyi Churchill et al., forthcoming; Bergh and Henrekson, 2011; Nijkamp and Poot, 2004; Poot, 2000); but surprisingly, much less research has been done on the macroeconomic impact of government transfers. To the best of our knowledge, this paper is the first to provide a detailed empirical synthesis of the government transfers–growth literature using meta-analysis. An extensive literature review by Atkinson (1995) presents a useful overview of pioneering evidence on the government transfers–growth relationship, but the review does not conduct systematic tests for publication selection bias and does not account for sources of heterogeneity in the evidence base. In addition, with a surge in the number of studies since Atkinson (1995), it is worthwhile to re-examine this relationship using more robust and thorough techniques.

Based on a quantitative synthesis of 23 empirical studies that examine the effect of government transfers on growth, we found that in the sample that consists of evidence on both developed and less-developed countries (hereafter LDCs), the partial correlation between government transfers and economic growth was negative but statistically insignificant when using the 149 all-set estimates, while the negative partial correlation was statistically significant when using the 47 best-set estimates. The best estimates, i.e., the 'highest quality' estimates, are those identified by the authors of primary studies as the preferred estimates and, in most cases, address econometric issues like simultaneity and endogeneity over those that do not. Therefore, the negative relationship between government transfers and growth is reinforced by the best-set approach. We also found that government transfers reduce growth in developed countries when using both the all-set estimates and the best-set estimates, although these results should be treated with caution due to the small sample size. In addition, studies that used unemployment benefits instead of social security as a measure of government transfers reported a stronger negative growth effect. These findings suggest that during periods of large fiscal deficits, policymakers should be cautious in choosing fiscal consolidation instruments to minimise the adverse impact of reducing government transfers on growth.

The rest of the paper is organised as follows. Section 2 presents a brief overview of the literature regarding potential channels through which government transfers (hereafter GTRAN) may affect economic growth. Section 3 provides a narrative analysis of the empirics of the GTRAN–growth relationship. Section 4 provides a description of the data and the empirical methodology. Section 5 presents meta-analysis and meta-regression analysis results. Section 6 presents some conclusions and suggestions for future research.

2. Overview of potential channels of influence

GTRAN may distort an economy through various growth determinants, such as savings, fertility, human capital and labour supply, among others. Feldstein (1974) argued that GTRAN in the form of social security payments discourages savings and impedes capital accumulation and growth. Barro (1974) showed that social security is neutral with respect to savings when bequests are operative, but that the neutrality effect vanishes when fertility is endogenous (e.g., Becker and Barro, 1988; Zhang, 1995). Zhang (1995) showed that social security may promote growth by reducing fertility and increasing human capital when bequests are positive. In Ehrlich and Lui (1998), social security distorts family choices that affect the economic growth rate, which tends to fall in developed economies. Empirically, Barro (1989) found that GTRAN (represented by all social security and social welfare expenditures) had a negative effect on savings but a positive effect on growth, although this growth effect was not statistically significant. Using cross-country panel data, Zhang and Zhang (2004) provided evidence that social security reduces fertility and increases secondary school enrolment and growth. Ehrlich and Kim (2005), also using panel data, found that social security reduces private savings, fertility and growth.

GTRAN in the form of public pension funds also induces people to invest more of their resources in improving their longevity to acquire the promised pension, thus potentially affecting their incentive to invest in health and savings. Using lifecycle models, Davies and Kuhn (1992) and Philipson and Becker (1998) showed that social security induces more health spending for greater longevity and more lifecycle savings. In Zhang et al. (2006), public pension and health subsidies appeared to raise longevity but reduce savings, and thus, future output.

In a model economy with incomplete markets and idiosyncratic wage shocks, Floden (2001) showed that GTRAN changes the distribution of resources between rich and poor households and thereby reduces inequality, but the taxes needed to finance GTRAN distort labour supply and savings. Since distortionary taxes dampen incentives to work and invest, GTRAN may hurt growth (e.g., Alesina and Rodrik, 1994; Persson and Tabellini, 1994; Okun, 1975). On the other hand, redistributive transfers need not be inherently detrimental to growth when GTRAN benefits the poor and helps offset capital market imperfections (e.g., Aghion and Bolton, 1997; Benabou, 2000). In such

[1] According to Prasad (2008), OECD high-income countries spent 12.7% of their GDP on government transfers over the period 2000–2004.