# **ARTICLE IN PRESS**

Journal of International Economics xxx (2015) xxx-xxx



Contents lists available at ScienceDirect

### Journal of International Economics



journal homepage: www.elsevier.com/locate/jie

### Trade and the political economy of redistribution

### G. Vannoorenberghe <sup>a,\*</sup>, E. Janeba <sup>b,1</sup>

<sup>a</sup> IRES, Université Catholique de Louvain

<sup>b</sup> University of Mannheim, Dept of Economics L 7, 3-5 68131 Mannheim, Germany

#### ARTICLE INFO

Article history: Received 9 October 2013 Received in revised form 22 April 2015 Accepted 29 September 2015 Available online xxxx

JEL classification: F1 H2

Keywords: International trade Redistribution Political economy Factor mobility

#### ABSTRACT

This paper shows how international trade affects the support for policies which redistribute income between workers across sectors, and how the existence of such policies changes the support for trade liberalization. Workers, who are imperfectly mobile across sectors, vote on whether to subsidize ailing sectors, thereby redistributing income but also distorting the labor allocation. We present three main findings. First, redistributive policies are more "likely" to arise in a small open than in a closed economy for a broad range of parameters. Second, if a redistributive policy is adopted in both situations, income differences across sectors tend to be lower in the open economy. Third, the possibility to redistribute income across sectors raises the political support for trade liberalization in the first place.

© 2015 Elsevier B.V. All rights reserved.

#### 1. Introduction

The present paper shows how international trade affects the support for policies which redistribute income between workers across sectors, and how the existence of such policies changes the support for trade liberalization. Although cross-sectoral redistributive policies are generally considered inefficient (Acemoglu and Robinson, 2001), they remain an important channel through which governments across the world redistribute income or support employment. These typically take the form of bailouts, subsidies, or differential taxation across sectors and have gained importance during the recent crisis (OECD, 2010). Rickard (2012b) shows that their prevalence increased in developing countries in the 1980s and 1990s, and such policies are also widespread in developed economies, where they typically amount to well above 1% of GDP as shown<sup>2</sup> in Fig. 1.

The persistence of such policies may come as a surprise in light of the common belief that globalization imposes new constraints on governments' ability to redistribute income or protect their citizens

janeba@uni-mannheim.de (E. Janeba).

http://dx.doi.org/10.1016/j.jinteco.2015.09.008 0022-1996/© 2015 Elsevier B.V. All rights reserved. through the welfare state<sup>3</sup> (see Brady et al., 2005). The present paper however argues that opening up to trade reduces the inefficiency associated with cross-sectoral redistribution and makes such policies less costly to implement than in autarky. This translates into a stronger political support for redistribution in open economies and raises the likelihood that redistribution arises in a voting equilibrium for a broad range of parameters. Anticipating this outcome, voters are more likely to accept trade liberalization – defined as a move from autarky to a small open economy – than in the absence of redistributive policies. Our theory therefore shows that (i) opening the economy to trade needs not undermine cross-sectoral redistribution and that (ii) the possibility to redistribute makes it more likely that voters favor trade liberalization.

Our economy consists of different sectors producing under perfect competition and using exclusively labor. The demand conditions for each sector differ, thus setting the stage for redistribution towards workers in sectors with low demand. To capture the inherent tradeoff of cross-sectoral redistribution, we assume a Roy-type setup in which workers are heterogeneously productive across sectors. The dispersion of productivity draws captures in a tractable way the degree to which workers are specific to a sector (in the spirit of Grossman

<sup>\*</sup> Corresponding author at: Room D.130, Pl. Montesquieu 3, 1348 Louvain-la-Neuve, Belgium. Tel.: +32 10 47 4337.

E-mail addresses: G.C.L.Vannoorenberghe@uvt.nl (G. Vannoorenberghe),

<sup>&</sup>lt;sup>1</sup> Tel.: +49 621 181 1795.

<sup>&</sup>lt;sup>2</sup> Although the trend has been slightly declining in the 1990s, the various rules imposed by the EU or WTO have not made these policies disappear.

<sup>&</sup>lt;sup>3</sup> For example, Wilson (1987) shows that the higher mobility of the tax base in an open world limits the size of redistribution that a government can conduct, while Alesina and Perotti (1997) point to the negative effects of redistribution on a country's competitiveness. Epifani and Gancia (2009) on the other hand argue that terms of trade externality in the financing of public goods help raise the size of governments in an open economy.

2

## **ARTICLE IN PRESS**

(1983)). It determines the extent to which interests are conflicting across sectors and to which redistributive policies distort the sectoral allocation of workers (the more specific, the smaller the distortion).

Within this framework we assume that workers determine the level of intersectoral redistribution by majority voting. This creates a conflict of interest between workers choosing to work in low-demand sectors, who benefit from redistribution, and those choosing sectors with high demand, who lose. Redistribution only arises in equilibrium if enough workers choose to work in low-demand sectors, an outcome which depends - among other things - on the number of low-demand sectors in the economy. The main conclusions of our model rest on the observation that a given degree of cross-sectoral redistribution causes less inefficiency in an open than in a closed economy. Loosely speaking, the domestic distortion implied by redistributive policies is less costly when consumers can turn to foreign goods. If the world price of lowdemand goods is not too low, these lower costs of redistribution translate into a stronger political support for redistribution, which manifests itself along two margins: (i) the median voter is "more likely"<sup>4</sup> to vote for some redistribution in an open economy, and (ii) if redistribution is implemented, equilibrium wages in low demand sectors are relatively higher in an open economy. If the world price of the low-demand good is very low however, opening up to trade not only reduces the wage in low demand sectors, but also induces workers to move to high demand sectors, thereby eroding the political support for redistribution. If this causes redistributive policies to be abandoned, wages in low demand sectors further decrease. It is worth emphasizing that some degree of cross-sectoral worker mobility is needed for the political support of redistribution to be endogenous, and our results would not hold in a standard specific factors model<sup>5</sup>.

Finally, we allow workers to vote on whether to open the economy to trade before deciding on redistribution. We show that the possibility to implement cross-sectoral redistribution raises the set of parameters for which trade liberalization is chosen. In particular, when low demand sectors have a comparative disadvantage, we show that trade liberalization always wins.

The type or redistributive policies that we intend to capture are broad and well-known in the political science literature. Support to specific sectors is often direct through price subsidies, bailouts, guarantees (e.g. agriculture, coal mining, see Victor (2009)) or preferential tax rates. Subsidies can also target sectors indirectly when tied to characteristics of the production process (tax rebates on R&D, capital or energy). The exact form that these policies take varies across countries (Verdier, 1995), and has evolved over time (Aydin, 2007), but these remain widespread<sup>6</sup> as shown in Fig. 1.

A number of studies in political science link sectoral subsidies to globalization. Ford and Suyker (1990) argue that the emergence of industrial subsidies in the 1960s was a response to decreasing tariff levels. Rickard (2012b) shows that globalization proved instrumental in driving the rise of such subsidies in developing countries in the 1980s and 1990s and confirms a positive association between globalization and subsidies even for later periods for a large groups of countries (Rickard, 2012a). The results for developed economies are however mixed (Blais, 1986; Zahariadis, 2002; Aydin, 2007), and our model predicts an ambiguous link between globalization and the ratio of subsidies to GDP, depending on the patterns of comparative advantage. We rather view our theory as an explanation for why cross-sectoral redistribution is not strongly receding, and sometimes progressing, in the face of globalization.

The present paper relates to the literature on the distributive effects of international trade coming through a more elastic labor demand. Empirically, Slaughter (2001) finds evidence that the elasticity of labor demand has increased between the 1970s and 1990s in the U.S., although he cannot identify a strong effect of globalization on this pattern (see also Krishna et al., 2001). Spector (2001) shows how changes in elasticity matter for redistributive polices in an income taxation model à la Mirrlees. In contrast to this literature, a more elastic labor demand does not in itself affect the extent of redistribution in our approach, as voters can choose a policy which cancels the real effect of a higher elasticity. Much more central to our results is that consumer prices are not distorted by redistribution in a small open economy. On top of an increased elasticity of labor demand, Rodrik (1997) argues that globalization raises the exposure to external shocks, and thereby the demand for stabilization through government intervention. While Rodrik (1997) focuses on general government activity in a world where all citizens have similar interests, our framework makes predictions for policies which target some sectors at the expense of others, for which conflicts of interests are central. Finally, we also relate to the literature on international trade when factors are imperfectly mobile between sectors or occupations (Kambourov, 2009; Artuc, Chaudhuri, and McLaren, 2010; Ohnsorge and Trefler, 2007).

Section 2 describes the setup of the model. Section 3 solves the model for a given redistributive policy, and describes the key differences between the closed and open economy. Sections 4 and 5 endogenize respectively the choice of redistributive policy and of trade policy (closed or open economy) by voters. Section 6 provides extensions of the model and Section 7 concludes.

#### 2. The setup

#### 2.1. Demand

The country consists of a mass one of individuals who share the same Cobb-Douglas utility function over *N* goods:

$$U = \prod_{n=1}^{N} q_n^{\alpha_n} \tag{1}$$

where  $q_n$  is the consumption of good n and  $\sum_{n=1}^{N} \alpha_n = 1$ . Individuals, indexed by j, maximize utility subject to their income. Defining the country-wide income as I and the price of good n as  $p_n$ , the aggregate demand for n is:

$$q_n^D = \alpha_n \frac{l}{p_n}.$$
 (2)

We assume that  $x_L$  of the *N* goods enter the utility with a weight  $\alpha_n = \alpha_L$  (the low demand or "L goods") while  $x_H$  goods have a parameter  $\alpha_n = \alpha_H > \alpha_L$  (the high demand or "H goods")<sup>7</sup>, where  $x_L \alpha_L + x_H \alpha_H = 1$ .

The country can be either in autarky or can open to trade as a small open economy, taking world prices as given. Each good is produced in a separate *sector* (L- and H-sectors) using labor as the sole factor of production.

<sup>&</sup>lt;sup>4</sup> The term "more likely" refers to the fact that the minimum share of low demand sectors needed for redistribution to arise is lower in an open than in a closed economy.

<sup>&</sup>lt;sup>5</sup> In a specific factors model with two sectors and three types of workers (specific to low and high demand sectors, and mobile between them), the support for redistribution would be fixed and only workers specific to the low demand sectors would favor it. In that case, regardless of the costs of redistribution and of comparative advantage, the number of workers supporting redistribution would be the same in trade or autarky. Redistribution would only arise if more than 50% of workers are specific to low demand sectors.

<sup>&</sup>lt;sup>6</sup> Tariffs are another widespread policy instrument for cross-sectoral redistribution in an open economy. We discuss how tariffs relate to our analysis, and in particular how they are inferior to production subsidies, in Section 6.1.

<sup>&</sup>lt;sup>7</sup> With a Cobb–Douglas utility, differences in sectors' productivity would not affect the share of total income spent per sector. We concentrate on the Cobb Douglas case and on demand heterogeneity for simplicity. All results of Sections 3 and 4 hold with a CES utility function when sectors have a low or high productivity and redistribution takes place towards low productive sectors. See Vannoorenberghe and Janeba (2013).

Download English Version:

# https://daneshyari.com/en/article/7364187

Download Persian Version:

https://daneshyari.com/article/7364187

Daneshyari.com