Strategic fiscal policies in Europe: Why does the labour wedge matter?

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ABSTRACT

Most European countries suffer from a structural weakness in employment and competitiveness. Can an optimal tax system reinforce European countries in this respect? In this paper, we show that fiscal competition can be a welfare improving second best solution if the labour wedge is sufficiently large. Indeed, a sufficiently large labour wedge calls for an expansion of the production set in both countries, thus increasing global opportunities. For a small labour wedge, this would not be the case, because the terms-of-trade externality would call for a fiscal policy that exacerbates a non-cooperative behaviour between countries. In a two-country world, we show that the symmetric Nash equilibrium can be Pareto-efficient, if employment subsidies are financed by a consumption tax. This is not the case when the former are financed by tariffs.

1. Introduction

A fiscal reform shifting the tax burden from labour to consumption has become a serious policy option in the euro area. The first motivation for such a reform is the increasing need for more international competitiveness. This policy seems to be particularly useful in countries where production costs are high, due to strong labour market rigidities. Unilaterally shifting the tax burden from labour to consumption leads to a reduction in labour costs which can in turn improve labour demand; moreover, increasing taxes on consumption raises import prices without affecting export prices, resulting in a relative fall in export prices. Ultimately, the reform would stimulate competitiveness and employment. Following this intuition, many European countries have implemented this fiscal reform: Denmark in 1988, Sweden in 1993, Germany in 2006 and France in 2012.\textsuperscript{1} However, this intuition is based on the “naive” view that a fiscal policy which acts directly on competitiveness can be a unilateral reform. Our paper aims to provide an argument in favour of this fiscal policy by taking into account the strategic interactions between countries. We develop a two-country model where the optimal fiscal scheme is the solution of a non-cooperative Nash equilibrium.\textsuperscript{2} How/why can this policy affect allocation of resources? Can this policy increase welfare in a multi-country world where more than one country can strategically manipulate its tax policy?

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\textsuperscript{1} As shown in Lipinski and von Thadden (2009), many European countries have shifted their tax structure in this way over recent years.

\textsuperscript{2} Rather than replacing the nominal regulation of short-term fluctuations with a new tax system (the “New-Keynesian” view à la Farhi et al., 2014 where “fiscal devaluation” is neutral in the long run), which would simply mimic the impact of another policy instrument (the nominal exchange rate) in a small open economy (ignoring the strategies of the other countries), we focus on the medium/long run impact of fiscal policy in a world with strategic interactions.

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We show that such a fiscal policy can improve welfare in the long run, even in a two-country world. Our results lend new support to this type of policy: it can counteract the structural weakness in employment observed in many European countries. This could be viewed as a more convincing than focusing on output gaps (those between the effective output and the flexible one), which are negligible with respect to the size of the observed long-term inefficiencies. Moreover, we show that this type of policy can be welfare-improving for “strategic” countries (i.e. those which can manipulate their tax system), even in a non-cooperative game between countries. However, we will also see that, in an open economy framework, the terms-of-trade externality might, on the contrary, call for fiscal reforms which shift the tax burden from consumption to labour. Given that the terms-of-trade externality cancels out part of this fiscal devaluation, we show that the success of this policy depends on the size of the externalities stemming from the imperfect competition in the labour market, the “labour wedge”. In a non-cooperative Nash equilibrium, we show that shifting the tax burden from labour to consumption is preferable, if the labour market suffers from large inefficiencies.

In our paper, a general result emerges: given that each government has only one fiscal tool for tackling two externalities (terms-of-trade externality and labour wedge), it must choose the tax design that reduces the weighted average of these two gaps. These two objectives are antagonistic: labour market inefficiencies call for employment subsidies that increase output, whereas the terms-of-trade externality calls for employment taxes that reduce output.

If the labour wedge, modelled as a wage mark-up, is “small” (or even negligible), taxes on goods are used to tax labour and reduce supply. Such a unilateral reform would improve terms-of-trade and increase household purchasing power and welfare. It is also intuitive that this unilateral tax reform is not Pareto-efficient. However, if we take into account retaliation by trade partners, as we do in our two-country model, the terms-of-trade effect is lost and the reduction in trade flows implies a welfare decrease.

Conversely, if the labour wedge (wage mark-up) is large, consumption tax revenues should be used to “buy” the large rent of the monopolists in the labour market. In this case, the optimal tax system consists in shifting part of the direct tax on labour towards an indirect tax on consumption. Moreover, contrary to the reforms analysed in the case of a small wage mark-up, we find that such reforms generate positive spillovers for trade partners and can be Pareto-efficient. This last result adds a new dimension to the literature on optimal taxation in international trade focusing on non-cooperative fiscal schemes.

Our paper is related to other contributions in trade and labour market literature. In their seminal paper, Bagwell and Staiger (1999) show that, in the context of a two-country model where both countries act strategically, the non-cooperative strategies lead the world economy to the low equilibrium of this non-cooperative game. From this result, they deduce that trade agreements, as supported by the GATT, remedy this inefficiency and provide welfare gains. However, we show that the arguments in favour of a “free trade” economy are not sufficient in a game with large labour market inefficiencies: in this case, non-cooperative strategies based on a consumption tax and employment subsidies can lead to greater welfare in strategic countries than that obtained in a “free trade” economy. The “large” size of the labour wedge is supported by the macroeconomic literature on labour. Indeed, a large number of papers underline the so-called “European employment problem” (see Prescott, 2004; Ljungqvist and Sargent, 2008). This “labour wedge” calls for structural policies to raise the total number of hours worked, either by acting on the number of hours worked per worker or on (un)employment: fiscal reforms, as long as it leads to a reduction in total labour costs, can therefore be helpful on this issue. This is shown in Langot et al. (2014). We extend these previous analyses by taking into account the fiscal competition between “strategic” countries where labour market equilibrium is inefficient. The novelty of our results is: even if countries act in a non-cooperative way, they can achieve increased welfare thanks to positive spillovers from these fiscal reforms.

In the first section of the paper, we present the optimal taxation scheme whereby countries shift their tax burden from labour to consumption. We derive a set of analytical results and carry out a quantitative exercise to measure the gains of this policy reform. In the second section, we discuss the robustness of our results by allowing governments to use tariffs instead of a consumption tax. Indeed, when imperfect competition distorts the allocations on goods and labour markets, we show that tariffs are well suited for protecting a country against imports and promoting exports, even if they are prohibited by European treaties. In this case, there is no analytical solution and we only provide a quantitative assessment based on a calibrated version of the model. We show that tariffs

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3 This result occurs if the country is large enough to affect the terms-of-trade (a small open economy never has an incentive to impose a protectionist policy because the terms-of-trade are given). As underlined by Costinot et al. (2015), this idea of protecting the home country through tariffs goes back a long way in the international trade literature, notably to Mill (1844). Indeed, when goods are imperfect substitutes at the international level, the home country planner can compute an allocation by acting as a monopoly vis-à-vis the foreign countries, using the information about the import and export functions. As shown in Costinot et al. (2015), the optimal policy allows governments to extract a positive mark-up if they implement tariffs on imported goods. Here, taxes on imports reduce trade between countries, in particular trade in goods produced domestically, and thus lead to a reallocation of domestic goods, which helps increase the real wealth of domestic economic agents.  

4 When the labour wage is sufficiently large, employment in the economy without an optimal tax policy can be lower than that in an economy without labour market frictions: thus, when the labour wedge is sufficiently large, the labour market distortions dominate the terms-of-trade externality.  

5 Bagwell and Staiger (2012) argue that trade agreements continue to increase welfare, even if there is imperfect competition on the goods market. This welfare gain still comes from the terms-of-trade externality.  

6 This refers to the substantial decrease in total hours worked in most European countries since the 1970s relative to Anglo-Saxon economies like the United States. Two dimensions must be distinguished: (i) the persistence of a high unemployment rate, which the literature relates to the effect of stringent labour market institutions on the extensive margin of labour, i.e. the number of employees (see e.g. Blanchard and Wolfers, 2000), and (ii) a lower number of hours worked per employee, i.e. the intensive margin of labour, which is strongly related to the effect of a too heavy labour tax wedge (see e.g. Rogerson, 2006 or Ohanian et al., 2008). On this point, Prescott (2004) mentions that the welfare gains for French households from adopting American taxes (i.e. reducing the effective tax rate on labour by 20 percentage points) “would be equivalent to a 20 percent increase in consumption, with no increase in work effort” (Lucas, 2003).  

7 In Costinot et al. (2015), a multi-country analysis is proposed but, only one country has “strategic” tools, and there is no production with imperfect competition in the labour market.  

8 This result is opposite of the Lerner (1936) symmetry theorem, which says that an import tariff is equivalent to an export tax, if the markets are competitive at the general equilibrium.
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