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Offshoring and labour market reforms in Germany: Assessment and policy implications☆

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ABSTRACT

Starting from the diagnosis that Germany has had better economic outcomes than most advanced countries since the mid-2000s, we propose a general equilibrium model to answer the following two questions: Why is it so and is the German experience applicable to other EU countries? Whereas a large number of observers explain German competitiveness by the labour market reforms implemented from 2003 to 2005 (Hartz laws), we suggest that (i) the gains in competitiveness are essentially due to offshoring and (ii) the labour market reforms have subsequently reduced the offshoring-related unemployment by decreasing the reservation wage, creating thereby low skilled jobs in non-tradable services. These reforms have also reinforced inequality already generated by offshoring. In contrast with the traditional explanation based on the Hartz reforms, our model findings and simulations fit well with the sequence of observed facts. This experience could be extended to other EU countries, but with higher cost and lower efficiency. Finally, as the reduction in unemployment is based on the extension of non-tradable services, we suggest alternative policies that reach the same goal without increasing inequality.

1. Introduction

We develop a simple general equilibrium model that combines offshoring and labour market reforms to explain the main characteristics of the German experience since the mid-nineties. We show that the German primary upsurge in both competitiveness and unemployment is linked to offshoring. The labour market reforms that reduced the reservation wage subsequently lessened unemployment by creating jobs in non-tradable services. We finally assess the extension of this experience to other European countries and we suggest alternative policies that could reduce unemployment without increasing inequality.

Since the mid-2000s, Germany has exhibited better economic results than most advanced countries. Growth has been higher, unemployment has continuously diminished, budget deficits and public debt have decreased and are now significantly lower than that of other European countries. Above all, the German performance on external markets has been particularly beneficial since Germany has accumulated substantial trade surpluses and maintained its international market share, in contrast with all advanced economies whose market shares have narrowed because of the increasing weight of emerging countries. Finally, unlike all advanced economies, the decrease in unemployment has been continuous since 2005, with almost no impact of the 2008 financial crisis on this reduction.

The turning point occurred in the mid-2000s. In the late 1990s–early 2000s, Germany was considered as 'the sick man' in Europe (Economist, 2004), with low growth, high and increasing unemployment, budget deficits and public debt. Most German economic indicators began to improve in 2006, i.e., one year after the final setting of the Hartz reforms. Implemented from 2003 up to 2005, the four stages of the Hartz reforms aimed at lowering unemployment and increasing German competitiveness by making labour more flexible and inciting unemployed workers to participate in the labour market.

The coincidence of the German recovery with the implementation of the Hartz laws has led a large number of observers to explain the German success by the following sequence: the Hartz reforms have increased labour flexibility, reduced wages and boosted German competitiveness, resulting in both higher exports and higher production, and finally lower unemployment. A virtuous circle has then emerged in which higher exports, production and employment have lessened public deficit and debt, which prevented Germany from setting the

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restrictive fiscal policy followed by most European countries, which has in turn resulted in higher growth compared to the rest of Europe.[2]

As already noted in several works (e.g., Dustmann et al., 2014), this interpretation does not coincide with observed facts. The core of the 'traditional' explanation is the impact of Hartz reforms on wage moderation, competitiveness and exports, which would have boosted production and employment. But the increase in competitiveness and exports occurred over the period 1993–2005, i.e., before the setting of Hartz laws. After 2005, German exports in percent of GDP as well as the exports/imports ratio have decreased, in contradiction with the aforementioned interpretation. Moreover, the most striking result of the Hartz reforms is the huge increase in atypical employment.

To explain the rise in competitiveness observed well before the Hartz reforms, Dustmann et al. (2014) emphasize the changes in the German system of industrial relations that began in the nineties. Our paper provides an additional (but not alternative) explanation that combines offshoring and labour market reforms to describe the German experience. The scenario is as follows. Facing higher labour cost than other advanced countries, German firms have relocated the (low and medium skilled) labour-intensive stages of production to low-wage countries, particularly in Central Europe, this relocation being much more pronounced in Germany than in other European countries. This has (i) increased the competitiveness of German products in foreign markets, raising thereby German exports, (ii) increased the unemployment of unskilled workers in Germany, and (iii) increased inequality by driving down the wages of the unskilled. The impact upon growth was negative in a first stage because (i) of growing unemployment and (ii) the increase in exports was to a large extent based on offshoring, i.e., composed of imported parts. Confronted with the offshoring-related increase in unemployment, the German government introduced the Hartz reforms whose key implication was the promotion of low paid jobs in non-tradable services. This policy has reduced unemployment, but this has come with the increase in non-standard employment and with growing inequality and in-work poverty. Finally, the increasing demand for German goods due to higher competitiveness has subsequently boosted production in the segments located in Germany, implying a further increase in employment.

We develop a general equilibrium framework that replicates the aforementioned scenario and provides a modelling of the German experience (outsourcing + labour market reform). The GE model does not aim at capturing all the dimensions of the German macroeconomic experience since the mid-nineties. Its goal is to analyse the impact on the German economy of the combination of, and interplay between, offshoring and labour market reforms, and to verify that these mechanisms provide a reliable picture of the major characteristics of the German economy over this period. The model comprises three sectors and three countries. The three countries are Germany, other advanced economies (labelled '*North*') and the 'South'. The South displays a comparative advantage in low skill intensive productions. There is one skill-intensive sector which comprises two goods differentiated according to their country of origin ('Armington's hypothesis'), Germany and North, and produced from two segments, one utilising skilled labour and the other unskilled labour. The 'unskilled' segment can be offshored, but offshoring has a cost which decreases with time (globalisation). Another sector is unskilled-intensive and its production is fully located in the South. Finally, a non-tradable unskilled-intensive service is produced in each country. We start from an initial situation in which the offshore production cost is large enough to maintain the whole production of the skill-intensive sectors in Germany and North. The subsequent continuous decrease in this cost results in offshoring to the South of the unskilled-intensive segment of the German skill-intensive good. We analyse the impact of offshoring by assuming a reservation wage in Germany, and then a decrease in this reservation wage due to labour market reforms.

In contrast with the explanation based on the impact of wage limitation upon German competitiveness on external markets, the results of our model reproduce the main characteristics of the German experience since the mid-nineties. The fact that Germany outsources before and more intensively than other countries is endogenously determined. In addition, the model replicates the sequence of observed facts. In particular, it explains the increase in the exports/GDP ratio before the Hartz reforms and its decrease afterwards, as well as the fact that the rise in the skill premium and in the cost of unskilled labour began before the implementation of these reforms. We also find that the decrease in unemployment would have occurred even without the Hartz laws, but later and less intensively. Assessing the applicability of the German experience to other EU countries, we note that this could be significantly less beneficial for a series of reasons: (i) the first country to offshore benefits from a lasting advantage; (ii) Germany benefits from a geographical and cultural advantage in central European countries; (iii) the reduction in wages necessary to offset the offshoring-related unemployment should be more sizeable in other EU countries because the weight of unskilled workers is lower in Germany. We finally discuss alternative policies. As the decline in unemployment is essentially based on the development of non-tradable services, policies that boost the demand for non-tradables without lessening the unskilled workers' wages could reduce unemployment without increasing inequality.

The stylised facts and the related literature are outlined in Section 2. Section 3 presents the general framework of the model, the analysed scenario and the modelling strategy. Section 4 describes the equilibria corresponding to each stage of our scenario. Section 5 exposes the results of the simulations implemented from an extended version of the model. The main findings are discussed in Section 6 and we conclude in Section 7.

2. Facts and literature

2.1. German economic performances

Comparing the German economy with that of other European and advanced countries since 1995 leads to a clear distinction between two phases (Fig. 1). From 1995 to 2005, the German economic performance was below those of most advanced countries: growth was lower and unemployment was higher. In contrast, from 2006 onwards, Germany has exhibited economic results incontestably better than most advanced countries.

Compared to other advanced economies, Germany displays two noticeable characteristics:

1. The recession that followed the 2008 financial crisis has had a low impact on unemployment which has almost not increased in 2008–2009 (Fig. 1b).
2. The German performance in terms of external trade has been particularly impressive (Fig. 2). Germany is the only advanced country whose ratio of exports of goods to GDP has substantially increased in the last two decades, passing from 25% in 1996 up to 47% in 2008. In addition, the exports/imports ratio of goods has always been significantly higher than one, attaining 1.25 over the period 2001–2008. It must finally be highlighted that the German Exports/GDP ratio has improved from 1995 up to 2005, i.e., before the Hartz reforms. In contrast, the implementation of these reforms has come with a decrease in this ratio.

2.2. The Hartz reforms

When unemployment started to rise again in 2000, especially amongst the unskilled, the German government decided a series of labour market reforms known as the Hartz reforms and implemented in four stages from 2003 to 2005 (Jacobi and Kluve, 2007 and Alber and

[2] Arguments along these lines can, e.g., be found in Kirkegaard (2014) and Rinne and Zimmermann (2013).