

# The economic impact of cross-border work on the municipalities of residence: an example at the French–Luxembourgish border

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## **Abstract**

This chapter seeks to investigate whether the proximity of a border can be seen as an engine of regional development, or a disruptive element. The impacts of cross-border activity on demographic evolution but also on unemployment or economic activity at the French–Luxembourgish border will be identified. Quantitative data from the municipal level (French census for 2014) will be used, with a special focus on the French border municipality of Longwy (formerly one of the main steel-producing areas in France).

## **Keywords**

Cross-border work, Greater Region Saar-Lor-Lux, economic impact, Lorraine

## *1. Introduction*

In European border areas, especially around Luxembourg and Switzerland, cross-border mobility of workers (between two different countries) is extensive and increasing. The Greater Region Saar-Lor-Lux, a cross-border space constituted by regional entities from four different countries (Lorraine in France, Saarland and Rhineland Palatinate in Germany, Wallonia in Belgium and Luxembourg), counted 232,000 cross-border commuters in 2017. Cross-border work is anchored in local economies and has many impacts. The cross-border commuters experience the border in their everyday life, through their specific status, their home–work mobility, and the differences (economic, legal, etc.) between the place where they live and the place where they work. In this chapter, we address the issue of the economic impacts of cross-border work on the French municipalities of residence in the vicinity of Luxembourg (the north of Lorraine, because of the

considerable flow of cross-border commuters and the historical context of economic activity). Can borders (through the importance of cross-border work) be seen as an engine of growth and regional development, or as a brake on economic development for these municipalities? Our aim here is to enrich the common knowledge and understanding of border experiences in relation to work by identifying some economic impacts related to the proximity of a border and the number of cross-border commuters in the places of residence. The impacts on population growth, local unemployment, and economic activities will be analyzed on a small territorial scale (municipal if possible, or employment area).

From a theoretical perspective, economic science provides instruments and concepts to enable better understanding of mobility. The first way of considering mobility is to analyze it as one of the fundamental conditions of the ideal functioning of the labor market. In the benchmark model of economics, in particular the model of the market first formalized by L. Walras in 1874, mobility of economic agents has a central status. All the theoretical analysis consists in showing that mobility of workers is useful for firms as well as for workers themselves, and in different situations (in employment or in unemployment). On the one hand, there is a scarcity of resources in comparison with the unlimited needs of individuals. Individuals, such as cross-border workers, thus offer their availability and work to companies (which may be located across the borders). They have to make choices, taking constraints into account (distances, travel time, etc.). On the other hand, the rationality of economic agents' behavior is the second postulate of this theory. Workers (including cross-border workers) always make the best choices. They are rational because they seek to maximize their satisfaction by minimizing their effort. Employers are also rational because they seek to maximize their profit by minimizing the costs associated with the use of workers and capital. In this theory, work, whatever its nature or its institutional form (temporary work, border work, fixed-term contract, etc.) is summed up by the rationality of labor supply and demand. Following on from this benchmark model, several studies have legitimized the central role of mobility in the labor market in the context of unemployment. For some authors, professional mobility between various companies allows a search for information on potential future jobs (theories of job search from Stigler 1962; Jovanovic 1979a, 1979b). According to the human capital theory, mobility also enables the realization of investment in the human resources of workers (Becker 1964). In this frame of theoretical research, by being mobile, cross-border workers would accumulate various forms of work experience, increasing their employability and thus their future income. By contrast, immobility is considered a loss of ex-

perience. Is cross-border mobility of workers only a factor in the fit between labor supply and demand? Can it be analyzed differently? This empirical study also enriches the theoretical analysis of cross-border mobility. As a conclusion, we will provide some reflections on this topic.

In order to examine an economic impact, our aim is to analyze the data on a geographical scale that is not too large. We decided to use the municipal level (where available) as a way of revealing the link with cross-border work, providing some elements of explanation that will have to be studied (and confirmed) in future analyses. On its website, the French Statistical Institute (INSEE) publishes municipal data from the national censuses that record population and working (or non-working) population. They provide some insights into the recent evolution of the proportion of cross-border commuters in the municipalities, and into population characteristics.

It is indeed difficult to answer this question about economic impacts. Firstly, there is a lack of comparable and harmonized data. Different countries are involved, and methods of measuring (employment or unemployment, for example) differ from one country to another. Secondly, the geographical scale is a real issue: choosing the appropriate one is not easy. One may pitch it too large or too small, and data are not available for all the levels in a harmonized and comparable way. Lastly, different elements are interconnected, so that the causal effects are not easy to identify.

To address the economic impacts of cross-border commuters, we begin this chapter by outlining the spatial and temporal framework of this study (point 2). We identify some impacts of mobility on demographic dynamics (point 3), on local unemployment (point 4), and on economic activities (point 5) in the vicinity of the French–Luxembourgish border.

## *2. Cross-border mobility of workers in the Greater Region*

Within the Greater Region Saar-Lor-Lux, 232,000 people were living and working in two different countries in 2017 (OIE).

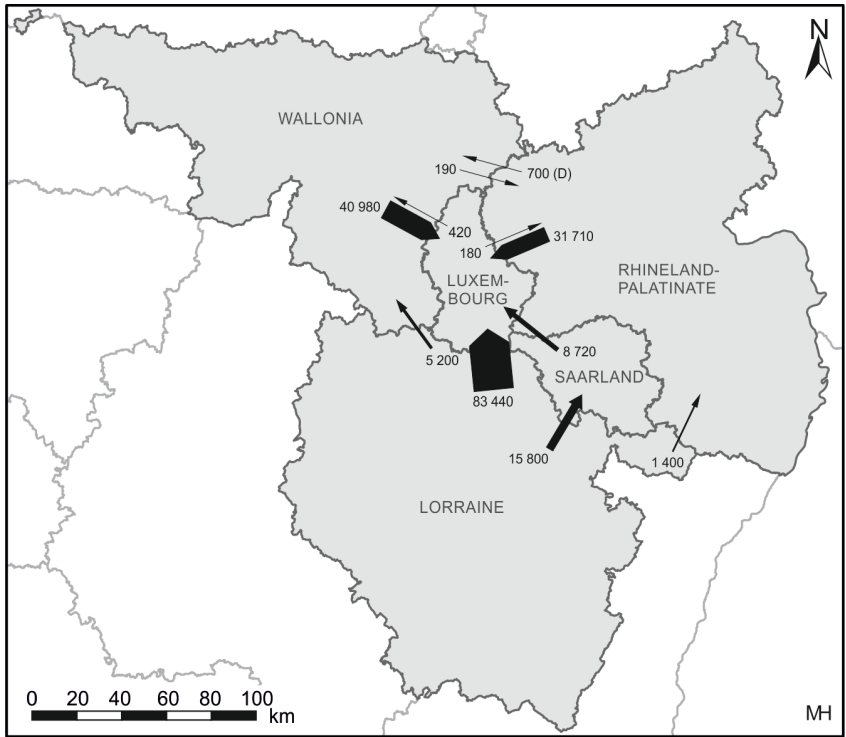


Figure 1: Cross-border commuters in the Greater Region Saar-Lor-Lux (2016)

Source: Data: IBA/OIE, Map: Malte Helfer

While most cross-border commuters work in Luxembourg, the French region of Lorraine is the main region of residence (around 105,000 in 2016). The large majority of the cross-border commuters living in France commute to Luxembourg. Moreover, there is a decreasing but still important flow of cross-border commuters from Lorraine to Germany (Saarland).

### 2.1 The durability of the phenomenon

Cross-border work is a lasting phenomenon that is anchored in local economies. In Lorraine, almost 10% of the working population works abroad (50% in the *Zone d'emploi de Longwy* (employment area) located near Belgium and Luxembourg). In small municipalities in the immediate

vicinity of the border, more than 75% of the working population works abroad (Figure 2).

Cross-border work is important for local economies not only on the French side of the border but also on the Luxembourgish one. Indeed, 187,700 cross-border commuters worked in Luxembourg in 2018. Over the last 25 years, the numbers of cross-border commuters coming from France, Germany, and Belgium have multiplied by a factor of 4.5 in this country. They now constitute 44.4% of the salaried population working in Luxembourg. Twenty-five years ago, only 23% of the salaried population in Luxembourg came from abroad (France, Germany, and Belgium). The French cross-border commuters working in Luxembourg are the most numerous: they constitute half of the group.

The economic growth of Luxembourg is partly due to this workforce coming from abroad (Belkacem/Pigeron-Piroth 2015a). Indeed, in sectors such as industry, trade, construction, finance, or science, more than the half of their workers are cross-border commuters.

## *2.2 A growing proportion of cross-border commuters in the French municipalities near Luxembourg*

The closer to the border the municipalities are, the more they are affected by cross-border work (Figure 2). Fewer than 5 kilometers from the Luxembourgish border, more than 75% of the working population of some French municipalities is employed in Luxembourg. These are mainly small municipalities offering little employment. Their geographical location is closer to the jobs offered on the Luxembourgish side of the border. Moreover, the attractiveness of employment poles located on the other side of the border is reinforced by the differentials (higher wages, for example) and metropolization of the city of Luxembourg. During the last ten years, most of the French municipalities have seen a rise in the proportion of cross-border commuters.

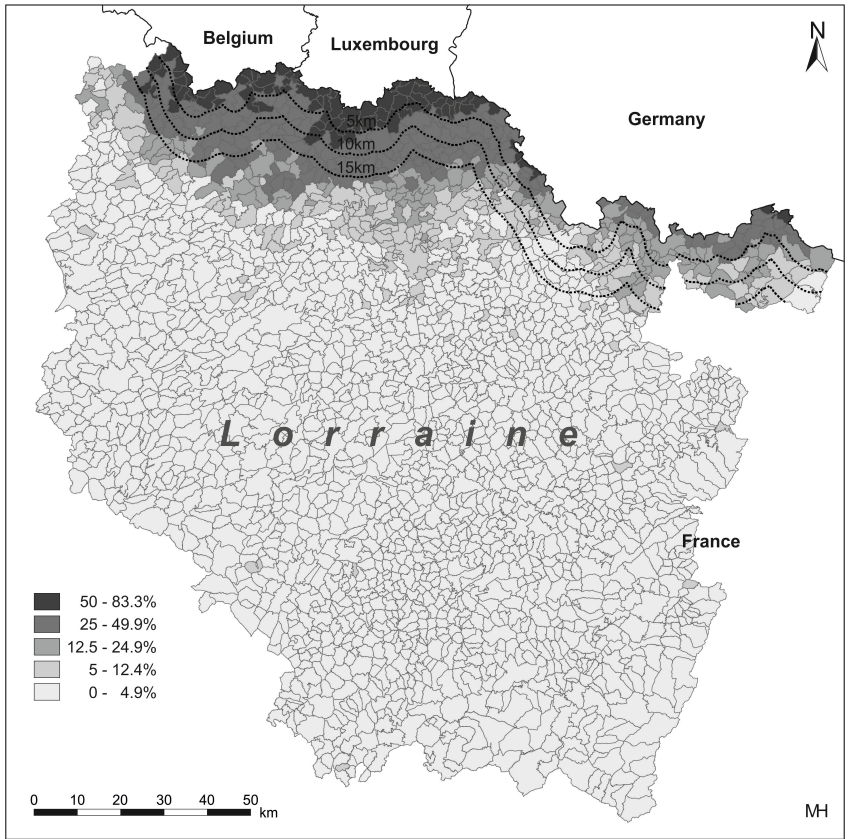


Figure 2: Percentage of cross-border commuters in the working population of French municipalities (2014)

Source: data: INSEE (Census 2014), calculation and map: University of Luxembourg

Furthermore, these French municipalities are attractive for the cross-border commuters who want to settle close to the border and reduce the home-work commute. Most of these municipalities have experienced strong demographic growth, mainly due to cross-border commuters and also the lower real estate prices in comparison to Luxembourg.

### 3. Population growth near the Luxembourgish border

To address the economic impacts of cross-border work in the French municipalities of residence, we first examined the growth of the population. The data are available at the municipal level. Taking into account the group of municipalities situated fewer than 15 kilometers from the borders (i.e. most of the municipalities with more than 25% of the salaried population working abroad according to Figure 2), their population fell continuously before 1990. From 1990 onwards, the population of this group increased again from one census to the next. On average, the annual rise was 0.32% per year over the last 25 years (+0.06% for Lorraine as a whole over the same period).

#### 3.1 Taking the context into account

The explanations for this can be diverse and, of course, contextual elements have to be taken into account to understand these trends better. For example, the neighborhood of Longwy (a town of 14,200 inhabitants in the north of Lorraine, bordering Belgium and Luxembourg) is a really interesting case study. In the past, it was an important industrial center with numerous furnaces and around 30,000 workers (in 1960). Longwy and its region suffered greatly when this activity stopped, and lost many inhabitants. During this process of deindustrialization, working abroad became a solution for many workers from the steel industry, who found jobs in the Luxembourgish steel industry (or other activity sectors). Indeed, the development of cross-border commuting from the area of Longwy began earlier in comparison to other French towns and cities (like Thionville or Metz, for example, which are both further from the border). In a recent study, an attempt was made to measure the individual and territorial determinants of cross-border commutes in comparison with other commutes taking place inside France (Pigeron-Piroth et al. 2018). One of the main results is that of course the distance, but also a low density of jobs around the municipality of residence in France (low number of jobs per km<sup>2</sup> around the municipality of residence), greatly increased the tendency to undertake cross-border commuting. That means that a lack of employment around the municipality of residence constitutes an explanation for cross-border commuting.

The social and demographic context varies from one municipality to another. According to data from the three last censuses, the area of Longwy (the *zone d'emploi* includes 100 municipalities, with a population of

111,885 people in 2014) has recently experienced a growth in population after a long period of decline. This increase is mostly due to migration (the new incomers). The proximity of Luxembourg and its job opportunities is a reason to move to Longwy. Moreover, the recent changes in the area (development of leisure activities, highlighting of the historical heritage of the town, etc.) have contributed to the diversification of the local economy and the image of the area, in contrast to its industrial history.

The profile of the cross-border commuters has changed very little in the area of Longwy. The social transformation of the population is indeed very slow and most cross-border commuters are still (low-skilled) workers. Finally, Luxembourgish metropolization has had less impact on the profiles of cross-border commuters in the area of Longwy (Chen et al. 2018, p. 16) compared with other French cities and towns like Metz or Thionville, where the numbers of highly qualified cross-border commuters have increased greatly.

### 3.2 *Small municipalities near the border*

For other small municipalities directly near the Luxembourgish border, the demographic growth is strong. For example, the border village of Zoufftgen had about 1,100 inhabitants in 2014. Since 2009, the annual average growth of the population here has been 6.2%. The settlement of new inhabitants in this municipality (mainly cross-border commuters) also has an impact on the sociodemographic characteristics of the population. Indeed, in 2014, the inhabitants with a higher education degree were strongly over-represented here (constituting 45% of the population compared with 27.5% for France as a whole). The numbers of these people continue to rise, while the numbers of people without a degree are decreasing and now correspond to fewer than one inhabitant in five (31.6% at the national level). This example underlines the attractiveness of the municipalities located near the border for the cross-border commuters who want to reduce the length of their commute.

Demographic growth of a municipality is a factor of dynamism, and a positive element, especially when this population has higher wages (wages are higher in Luxembourg, as are the social benefits). This greater buying power of cross-border commuters is indeed injected into the local economy via their local spending (on goods or services). They also pay local French taxes. However, the issues for the municipalities facing such a rise in population are numerous: cohesion with the established population, increase in real-estate prices, increase in the demand for services or schools,



mobility issues, etc. This growth of population is not neutral and has to be managed in order to be affordable and positive for the municipalities concerned.

#### *4. Evolution of the unemployment rate near the border*

Another way of analyzing the impact of cross-border commuting would be to gauge the impact on the rate of unemployment, arguing that cross-border commuting lowers this unemployment rate in places of residence. French territories are suffering a high unemployment rate in comparison to the other territories of the Greater Region. The smaller the geographical scale, the greater the impact that can be identified. However, calculating the rate of unemployment at the municipal level can be problematic because of the size of the municipalities (which can be really small in France) or the structural effect hidden by this rate (age of the resident population, for example). That is why we decided to analyze the unemployment rate at a higher (and logical) level: the *zone d'emploi* (employment area). Created by INSEE from the commutes, this level is a way of taking into account the area where most of the people live AND work.

##### *4.1 Restrained evolution of the unemployment rate*

Within the region of Grand Est as a whole, the unemployment rate is 8.9% (1<sup>st</sup> trimester of 2018, INSEE). The Grand Est region includes Lorraine, Alsace, and Champagne Ardennes, and is situated in the north-east of France. This is the new regional scale used in France since 2016. This region is the only French region that shares its boundaries with four countries (Belgium, Luxembourg, Germany, and Switzerland). Consequently, it is affected the most by cross-border work.

According to the *zone d'emploi* (employment area), there is a huge diversity of unemployment rates within Grand Est (from 5.2% to 12.3%) (Figure 3). Longwy and Thionville, the two towns most affected by cross-border commuting in the direction of Luxembourg, have employment rates close to the regional rate (and slightly lower for Thionville).

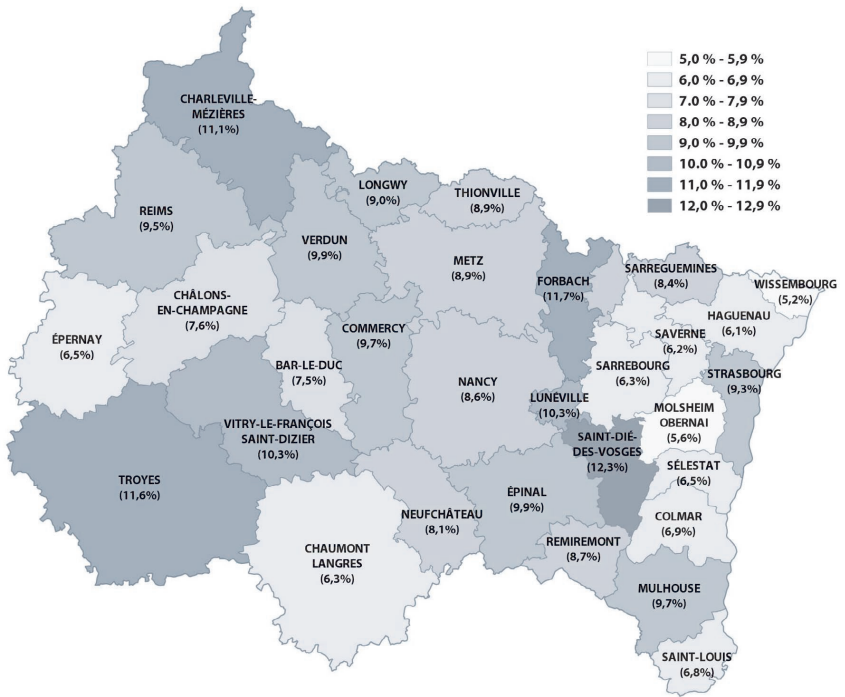


Figure 3: Unemployment rates for the French "zones d'emploi" in the Grand Est region (1st trimester of 2018)

Source: INSEE

The vicinity of Luxembourg and the opportunities for finding jobs in this country restricted the unemployment rates near the border. As explained previously, in the neighborhood of Longwy, the industrial crisis destroyed many jobs in this area a few decades ago. The possibility of finding a job just on the other side of the border (in the industrial sector) was an opportunity and reduced the unemployment rate. Today, the type of jobs held by cross-border commuters from Longwy is more diverse, but industry remains an important sector for the inhabitants of this region. Looking for a job on the other side of the border became common for most jobseekers. Moreover, the status of cross-border commuters has been regularized by bilateral tax conventions (to determine in which country the cross-border commuters have to pay taxes) and by European regulation (Regulation (EC) No. 883/2004 on social security). This status of cross-border commuters has greatly facilitated the rise in this activity, despite some prob-

lematic aspects of this status (for example, the differences in retirement age in the different countries). Moreover, some obstacles still remain and have slowed the development of the cross-border labor market (traffic jams, difficulties in having qualifications recognized in the other countries, etc.) (Belkacem/Pigeron-Piroth 2015b).

#### *4.2 A matter of matching*

The proximity of Luxembourg is of course not the only factor that affects the unemployment rate. Unemployment is indeed really complex to explain: the factors which affect it are numerous and there are different ways of measuring it. This is not only a matter of quantitative matching (between jobseekers and jobs), but also one of qualitative matching. Characteristics of supply and demand do matter. The Luxembourg labor market does in fact need an increasingly specialized and qualified workforce. Moreover, language skills are important and vary in Luxembourg from one job sector to another (Pigeron-Piroth/Fehlen 2015). The development of financial sector and science jobs in Luxembourg, for example, demands highly qualified people. There can be a mismatch between the needs of the Luxembourgish economy and the profiles of some jobseekers, with the result that some unemployment rates remain high. The other aspect to take into consideration when analyzing the unemployment rate is the supply side (employment opportunities) in the place of residence. How does job creation around the commune of residence look?

#### *5. Economic activity in the French area*

Despite the growth in the number of jobs offered in Luxembourg (2% per year on average between 2008 and 2013), the neighboring French territories faced a decrease in jobs over the same period (-1.7% per year in *Zone d'emploi* (employment area) *de Longwy*) (INSEE 2016). There is no real dissemination of employment growth across the borders. The border acts as a barrier in this case, and places territorial limits on job creation.

From a qualitative point of view, identifying the impact of Luxembourgish growth on the evolution and/or the transformation of local employment in the French territories is of real interest. Does the proximity to the border (and to neighboring labor markets) have an impact on economic activities that succeed and that develop in the French area? The French sta-

tistical institute showed that local employment was less developed in the immediate vicinity of the border. Moreover, employment related more to the “in-place economy”, that is to say jobs (production of goods and services) created locally to meet the needs of the population living in this area, or tourists (François/Moreau 2010). This could include, for example, leisure activities, but also trade, services, etc.

Indeed, in the area of Longwy the majority of the new enterprises created in 2015 belonged to the sectors of trade, transportation, or accommodation and food service activities. Several shopping and leisure centers have been built recently, creating more than a thousand jobs.

Nevertheless, some negative impacts of the proximity of borders can also be identified. The attractiveness of Luxembourg as an international employment pole can be problematic for the economic development of the French regions. The quantity and also the variety of jobs, and especially the high level of wages, can create competition between Luxembourg and the French region, which is economically less attractive. This area has to find territorial specialization complementary to the development of Luxembourg; the in-place economy as mentioned above constitutes an initial idea.

## 6. Conclusion

The everyday life of cross-border commuters is shared between a place of residence in one country and a place of work in another. The French–Luxembourgish border has a high level of cross-border flow, and some French municipalities have a high percentage of cross-border commuters in their resident population. The impacts of this huge cross-border phenomenon are numerous. Cross-border commuters, as they cross the border every day, experience the differences in laws, rules, prices, wages, labor markets, and so on. Throughout this chapter, we have tried to identify some impacts of these many types of mobility on the places of residence, in such a way as to answer this question: is the proximity of the border a positive or a negative point for demography, unemployment, or economic activity?

This chapter has provided insights into some economic impacts of cross-border commuting in French municipalities. Firstly, there is demographic growth near borders, in rural areas and in some industrial regions (Longwy) where the population was previously decreasing. The proximity of Luxembourg has a clear attractive effect and creates a dynamism in the area near the border. Secondly, taking into account the crisis this industrial area faced, unemployment has been somewhat limited. Without the job

opportunities in Luxembourg, the unemployment rate could have been much higher. Moreover, the local economy is being diversified with the development of the in-place economy in this region. Jobs in Luxembourg offer a higher level of wages, which contributes to the local economy through consumption of goods and services, for example. However, on the other hand, cross-border mobility of workers can hinder the development of these regions because of the “competition” with Luxembourg, through the brain drain, by increasing the expenses borne by the small municipalities facing a strong growth in population, or also by increasing social and territorial inequalities.

Cross-border work plays a significant role in European functional integration between border territories (Commissariat Général à l’Égalité des Territoires 2017). For territories in northern Lorraine, cross-border commuting brought about by the proximity of the border can be seen as a shared human resource for border areas. Indeed, rather than being simply a matter of supply and demand (as in economics research literature), cross-border mobility can be considered a constructed territorial resource for individuals and for territories. Social and institutional approaches in terms of regulation indeed constitute another way of analyzing mobility. In this approach, actors’ practices, institutions, rules, traditions, and conventions are central functions to understanding the evolution of employment. This theoretical perspective finds its origins on the one hand in the institutional economics that emerged in the United States at the beginning of the twentieth century with Veblen (1901) and Commons (1924), and on the other hand in the French regulation school with Robert Boyer and Michel Aglietta. The objective aimed at by these different authors is to understand economic and social transformations (Aglietta 1982, p. 14). The notion of regulation thus means “any dynamic process of adaptation of production and social demand, the conjunction of economic adjustments associated with a configuration yielded by social relationships, institutional and structural forms ...” (authors’ own translation) (Boyer 1980, p. 492). In this theoretical perspective, cross-border work is a social construction. Indeed, the mobility of cross-border workers is codified by various regulations. The Treaty of Rome in 1957 established the free movement of workers within the European area. European regulations apply to social security. Bilateral conventions between countries supplement these arrangements in order to regulate tax status. The practices of the individual and collective actors (workers, companies, employment agencies, etc.), who have a history, an identity, and a culture, provide a reality to these flows. The mobility of workers necessitates regulation of the workforce in terms of the quantitative needs of companies (number of workers) and the qualitative needs

(skills of the workers). Cross-border workers can thus be defined as shared human resources for cross-border areas (Belkacem/Pigeron-Piroth 2015a). Hence, we suggest considering geographical mobility a territorially constructed resource for both the individuals and the territories.

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