AGRICULTURAL EMPLOYMENT TRANSFORMATION IN FRANCE

ELENA FOURCROY*, NINA DREJERSKA**

*Universite Clermont Auvergne, France, **Warsaw University of Life Sciences – SGGW, Poland

ABSTRACT. Research on sectoral employment is an important part of economic investigation devoted to structural change, traditionally referred to when describing economic growth. At the same time, agricultural employment has been traditionally studied as an important feature characterizing rural economies. The main aim of the paper is to investigate agricultural employment transformation in France from the beginning of the twentieth century. Specific objectives include the presentation of changes in agricultural employment in France as well as their main determinants. A theoretical concept of the three sectors by Colin Clark, Jean Fourastié and Allan Fisher was referred to. It can be concluded that France is now in the “completion phase”, with the service sector dominating the employment structure. However, the French economy never experienced a real period of industrial predominance specified in the three-sector theory. Current issues in agricultural employment in France include the ageing of farmers, newcomers (already related to agriculture by their family or outsiders), increasing involvement of women as well as flows between sectors (agriculture is not a lifelong profession any more).

INTRODUCTION

The first foundations of the modern theory of three sectors were presented by Allan Fisher when he distinguished tertiary production – referring to services offering non-material production – from material ones, including the production of food and raw material (primary production), to other goods (secondary production) [Kwiatkowski 1982]. A. Fisher and Colin Clark then identified general trends of structural changes in a developing economy [Fisher 1933, 1939, Clark 1940]. In brief, countries start with the development of the primary sector, and then, when basic needs are fulfilled, resources are moved to manufacturing or, more generally, a production sector. Finally, along with increasing income, more free time and product market saturation, resources are redirected to the service sector supplying goods of high income elasticity demand.

Using this three-sector approach, Jean Fourastié proposed distinguishing three phases (start, expansion, completion) of economic growth, based on employment structure. He described a typical pattern with the primary sector (agriculture), first dominating, followed by the secondary sector and, finally, the tertiary sector (services). He concluded that the demand side determines the direction of this structural change, and to support this he ap-
plied psychological and sociological elements supplementing economic considerations. J. Fourastié associated a hierarchy of needs, with different saturation levels for the goods of the three sectors. Along with increasing income (resulting from technological progress), the demand for goods of the primary sector is first saturated. Further increases of income lead to the saturation of demand for goods of the secondary sector. The only sector whose demand is never saturated is the tertiary sector [Dietrich, Krüger 2018].

In general, the tertiary or service sector (third sector) is, nowadays, the main field of economic activity in the European Union. In 2016, it represented 73.9% of employment in the 28 EU countries altogether, whereas the primary sector (agriculture, forestry and fishing) represented 4.5% [EC 2017], and, the secondary sector (manufacturing), the rest. However, the role of the three sectors differs across various types of territories. In the predominantly rural regions of EU member states, the primary sector accounts for employment shares as low as 3.2% to as much as 34.8%. With a value of nearly 23%, Poland is in the group of five EU countries with the highest primary-sector employment shares in its predominantly rural regions, whereas France, with a share of 5.6%, was in the group of ten countries with the lowest levels of employment in this sector in predominantly rural areas [Eurostat 2017].

RESEARCH MATERIAL AND METHODOLOGY

Undoubtedly, the detailed reasons for the transformation of particular sectors in the employment structure require deeper investigation. This study is mainly limited to changes in agricultural employment. Its main aim is to investigate agricultural employment transformation in France over a long period, namely since the beginning of the twentieth century. Specific objectives include the presentation of changes in agricultural employment in France and their main determinants. In order to realize these objectives, public statistics as well as results of a literature review were used.

![Figure 1. Evolution of the sectoral employment structure in France, 1900-2016 (non-linear horizontal scale)](image)

Source: own calculations based on data of BNF Gallica
According to the sectoral transformation of the employment structure, introduced by J. Fourastié [1969], France is now in the “completion phase”, when the service sector dominates the employment structure. It is also important to notice that the French economy never experienced a real period of industrial predominance, as it did in Germany, Italy, Spain (a short period), Sweden [Kaelble 1998] or Poland in the 1970s and 1980s of the twentieth century [Drejerska 2018].

FROM THE FRENCH REVOLUTION TO THE XXI CENTURY

The long and constant decline in the French agricultural workforce started in the 19th century, and accompanied economic and social change in the whole country. Under the reign of Napoleon I (1804-1815), 60% of the workforce was dedicated to agriculture, whereas a century later, before the First World War, this sector represented less than 40% of total employment. The reign of Louis-Philippe (1830-1848), the last French king, was characterized by a rural exodus exceeding growth of the countryside’s population. In fact, this rural exodus had already started in the 18th century, but slowed down in the early 19th century due to tax relief gained by the peasantry during the French Revolution (1789-1799) [Marchand, Thélot 1991].

However, around 1835, France experienced an important industrial revolution, with the fast development of communication networks, making exchange and movement easier. Traditional French agriculture was directly affected by this evolution. Agricultural productivity increased, with the last food scarcity occurring in 1845-1847. The rise of monetary exchange lead to a decline of traditional agricultural barter, and the French language spread out into the countryside, where a multitude of dialects were originally spoken. In addition to these contextual changes, public authorities promoted agricultural modernization. In 1881, the first Ministry of Agriculture was created. Soon after, several Schools of Agriculture were open to spread scientific knowledge and increase agricultural efficiency [Flamant 2010]. This very busy time also gave birth to the first agricultural unions, aiming at structuring the agricultural world. The scientific breakthroughs of this century, like the famous discovery of the rabies vaccine, also impacted agriculture by improving the treatment of animal diseases. Hence, agricultural techniques and productivity improved, while fewer workers were needed in the primary sector, and employment progressively shifted to the secondary and third sectors (see Figure 1).

The slow but constant modernisation of agriculture initiated in the 19th century was halted by the First World War. Before 1914, 5.4 million workers were employed in agriculture and, during the conflict, 2 million of them were mobilised. When warfare ended in 1918, 20% of peasants were dead or severely wounded. In addition to these casualties, more than 2 million hectares of agricultural land had been devastated or abandoned, mainly in the highly productive Northern lowlands, where major battles took place. Livestock also deeply diminished during the war, and France had become very dependent on food importation [FMAF 2018].

Severely devastated by the conflict, the post-war French countryside had lost an important part of its workforce [Gauvrit 2012]. For instance, in 1926, in the South-West regions, the agricultural workforce was half the size of what it was in the 1850s. To ward
off this shortage of workers, landowners and government engaged in two major solutions. The first was the welcoming of immigrants from Northern Italy and their settlement in the deserted countryside — 80 thousand Italians migrated to the South-West of France between 1920 and 1939. In other regions, such as the Paris Basin, farmers engaged in mechanisation to replace missing human labour. During this period, the first farm tractors were introduced and the government resumed its support to agricultural modernisation, support which had been abandoned during the war [Flamant 2010].

Even though agricultural productivity had increased during the 19th century, most farms before 1914 were still small-scale, and subsistence farming was the dominant economic model. French agriculture suffered from lack of competitiveness, and food self-sufficiency had not yet been achieved [Gauvrit 2012]. After the war, to give new impetus to agricultural progress, the French government decided to implement the Danish and Dutch milk control model, launched important research in crop varietal improvement, and strongly encouraged an increase in the use of fertilizers [Flamant 2010]. These efforts led to a significant improvement in yield and a decrease in the number of very small-scale farms (less than 5 ha). At the 1930s the total number of farms declined to one third of the number from the beginning of the century [Gauvrit 2012]. What is more, between 1921 and 1936, the agricultural workforce lost 1.8 million workers, who mainly shifted towards the industrial sector (see Figure 1), without having a negative impact on agricultural productivity.

This dynamic period also gave birth to the first French companies producing agricultural mechanical tools and tractors, as well as fertilizers. Furthermore, the “Jeunesses Agricoles Chrétiennes” (Christian Youth for Agriculture), an agricultural association, was founded in 1929, and progressively gained power and political influence by the end of the 1940s, foreshadowing the substantial impact the association had in agriculture’s transformation after the war [Flamant 2010]. However, French agriculture was not spared by the crisis of the 1930s. The major aspect of this crisis was a collapse in agricultural prices, with, for example, a 50% decrease in wheat and potato prices between 1928 and 1935 [Thomas, Kimpe-Geeraert 1970]. To compensate for these price falls, French farmers chose to continue increasing their productivity. The rural exodus diminished because of the industrial crisis, which decelerated the growth of the second sector’s workforce (see Figure 1). After World War II, this workforce was never able to exceed the growth of the third sector’s workforce again. As a result, France never experienced a real period of industrial predominance, and its workforce evolution never totally matched J. Fourastié’s model [Kaelble 1998].

Finally, what really put an end to this post-WWI agricultural burst was not the economic crisis but the beginning of another conflict. Again, a severe workforce shortage hit French agriculture, as many men were kept by the Nazis as war prisoners, and others had died in battle. Additionally, the Germans requisitioned many workers to meet the needs of their war industries [Flamant 2010], and levied enormous parts of agricultural production for their own consumption [Cépede 1961]. During World War II, 400 thousand farm workers were withdrawn from the countryside, and the remaining farmers faced a shortage in fertilizers, energy and tools. In 1945, farmers were significantly impoverished, and a dramatic decrease in yield occurred. For instance, in 1947, wheat yield halved from its level from before the conflict [Cépede 1961]. But after this tragic period, a young and
new generation of farmers engaged in a strong modernisation movement and opened a new era for French agriculture.

Food shortages in France did not stop with the end of the Second World War. As a matter of fact, food rationing only stopped in December 1949, four and a half years after armistice. To rebuild agriculture from the ruins left by war, and ensure food security, the French government, helped by the former Christian Youth for Agriculture, now known as the “Young Farmers” [Flamant 2010], launched a vast and ambitious programme of agricultural modernisation. As a consequence of these measures, from 1950 to the beginning of the 21st century, the French countryside and its traditional peasantry experienced an upheaval which turned out to be the deepest change that ever affected this sector [Bourgeois, Demotes-Mainard 2000]. Over fifty years, French agriculture became one of the most productive in the world, with, for instance, wheat yield multiplied more than 4-fold [Desriers 2007, INSEE 2013]. At the same time, total agricultural production doubled and sanitary quality increased significantly. Additionally, from a country that imported twice more than it exported in 1960, France turned into a country with agricultural exports exceeding imports by 40% in 2000 [Bourgeois, Demotes-Mainard 2000]. This gain in efficiency and productivity was accompanied by a huge decrease in farm numbers. In 1955, there were still 2.3 million farms throughout the country, whereas, in 2003, only 590,000 remained. This downward trend was confirmed by new Figures in 2012 that counted only 515,000 farms, with the highest rate of decrease concerning small-scale and medium-scale farms, whereas large ones maintained themselves. Hence, in 2012, one third of the farms were big structures [Desriers 2007]. Correspondingly, the agricultural workforce diminished constantly. In 1949, 37% of the national labour force worked in agriculture, whereas only 15.5% of them were still peasants in 1968. This rapid decrease never reversed, and, in 2016, only 2.6% of the total workforce were employed in the primary sector (Figure 1). Moreover, this evolution also impacted French rural landscapes. In 1950, 72% of the country’s territory had an agricultural purpose (used or unused agricultural land), whereas, in 2003, this number had decreased to 59%, with an increase of both forest and urban areas.

The agricultural changeover that occurred during the second half of the 20th century was partly due to technical and scientific improvement of agricultural methods. As the French sociologist Henri Mendras wrote in his book, “The End of Peasantry” in 1967, this period corresponded with the end of a traditional peasant civilization, replaced by a generation of modern farmers [Gambino et al. 2012]. Furthermore, following the same purpose as the creation of agricultural schools in the 19th century, the government established agricultural high schools to educate and train young farmers [Flamant 2010].

After the Second World War, the countryside faced a massive rural exodus, and significant sub-replacement fertility rates. After the war, a significant part of the rural population migrated to big cities, attracted by the new industrial upturn that France experienced during the “Glorious Thirty” (years after the war) [Bonnal 2013]. In 1950, half of the French population lived in the countryside, whereas today only a quarter still lives in rural areas. Moreover, this rural population included numerous farmers, while nowadays agricultural workers are numerically inferior to other workers [Bourgeois, Demotes-Mainard 2000]. Within this huge movement of rural and agricultural exodus, many women left rural areas during the two decades following the war, creating a significant degree of celibacy
among male farmers [Souriac 1996]. But this demographic decline and rural exodus were seen as necessary to increase both productivity and efficiency. Hence, during the 1950s and 1960s, many farmers’ children, attracted by other sectors, left agriculture, whereas rural birth rates collapsed. Additionally, getting access to land was difficult, which much reduced the possibility for potential newcomers to become new farmers [Hérault 2016]. The agricultural and rural exodus continued until 1975, leading to a huge reduction in agricultural workforce, and the ageing of both the agricultural and rural population [Merlin 2010]. The vast majority of rural inhabitants were peasants, and peasantry was far more than a job, it was a whole way of life [Hérault 2016]. After the war, the traditional family farm system that had formed a whole civilisation for centuries came to its end. Farms had to become economically viable businesses run by no more than two co-managers, usually a farmer and his wife, and provide viable income [Flamant 2010]. Peasants no longer held a special symbolic status, they became common workers among the overall economically active population [Souriac 1996], shifting from a traditional world to a simple socio-professional category.

The severe post-war rural and agricultural upheaval permanently remodelled French countryside and the first-sector workforce. However, during the 1970s, a contrasting movement of rural resettlement and agricultural renewal started to counteract the previous trend. Thus, from 1975, the demographic trend began to reverse for two-thirds of the national territory [Hérault 2016]. The first movement of rural resettlement started with the economic crisis of the 1970s, which put an end to the “Glorious Thirty”. Concerning agriculture, France experienced surplus production, and the number of farms continued to decrease. But the number of jobs provided by other sectors in the countryside started to increase considerably and finally surpassed agriculture. During the years 1975-1980, the migratory balance towards city centres, once positive, became negative, and the rural and peri-urban migratory balance, previously negative, became positive. More and more industries settled in the countryside, as well as service providers or urban workers looking for better living conditions, all supported by a new policy of decentralisation implemented by the government. Hence, economic activity in rural areas, once dominated by agriculture, diversified. This diversification was then supported by the 1990s reform of the Common Agricultural Policy which introduced a concept of rural development no longer centred only on agriculture. Consequently, during the last decade of the 20th century, agricultural productivity maintained its progress, while the agricultural workforce continued to drop. As the 21st century dawned, agriculture had become a minor economic sector in the countryside, with an economic added value inferior to the sum of those in the second and third sectors, whereas the importance of tourism in terms of jobs and development increased greatly [Bonnal 2013].

In addition to this resettlement of rural areas, the arrival of newcomers in agriculture occurred in the 1970s [Chevalier 1981]. Following the societal changes brought about by the events of May 1968, a young generation of urban workers decided to go back to land, nature, and agriculture. Hence, agriculture experienced two opposite fluxes of employment at the same time: a large proportion of farmers’ children continued to leave the sector, whereas a small number of outsiders entered the profession. Approximately 100,000 urban newcomers joined the primary sector during the 1970s, but not all of them remained sustainable farmers. They mainly settled in the South, attracted by a mild climate, or in
the mountains, one of the most abandoned places after the “Glorious Thirty”, and where holdings were cheap and easier to acquire. Mostly arriving with a level of education much higher than traditional farmers, newcomers mainly engaged in organic farming, small cattle breeding, cheese-making, market gardening, arboriculture and bee-keeping. In addition to this new flow of urban youth, some farmers’ children, who had left the countryside for a while, also made a come back to agriculture, as well as skilled agricultural technicians who decided to start running their own farms [Chevalier 1981]. However, since 1980, the price of land increased and retired farmers or their urban heirs became more and more reluctant to sell their land [even if not used], making access to land more difficult, and thus limiting the arrival of newcomers. Though this phenomenon was important enough to be recorded and mentioned, it never offset the reduction of the agricultural workforce.

Since 1990, the trend of rural resettlement has never reversed, while the agricultural workforce is still diminishing [Desriers 2007]. To compensate for the shortage of family help in farming, the hiring of salaried employees in the sector has skyrocketed since 1980, especially seasonal migrant workers [Bourgeois, Demotes-Mainard 2000]. What is more, the downward trend in farm numbers has been maintained, and in 2013, there were only 490,000 farms. Nevertheless, agriculture remains an important sector for the country [Bonnal 2013]. It is more and more professional and diversified. New trends, such as organic production, conservation agriculture, agro-ecology and direct selling are all taking up more and more space [Desriers 2007]. However, the issue of land access that appeared in the 1980s still exists. The majority of land transferred by retired farmers are used to enlarge existing farms, and rarely to allow a newcomer to create his or her own business [Bourgeois, Demotes-Mainard 2000]. Hence, it creates a real problem of generational renewal. Consequently, in the first two decades of the 21st century, the ageing of farmers remains an issue. In 2009, 20% of farmers were more than 55 years old and, in 2013, more than one third of farmers were between 50 and 59 years old [AGRESTE 2017]. Additionally, the price of certain farms can be really high, due to a high level of specialisation and mechanisation, and can sometimes reach 1 million euro, which is also an obstacle to newcomers.

Newcomers can be divided into two categories: the ones already related to agriculture by family, and the others, outsiders. As concerns newcomers aged under 30, in 2009, 72% came from an agricultural background, and usually took over a farm ceded by a relative, while only 28% were outsiders. These outsiders, firstly attracted by deserted areas, now increasingly settle in peri-urban areas, and mainly go for organic farming or other types of cultivation viewed as more environmentally friendly [Simon 2013]. They often choose to enter the sector gradually, by progressively acquiring land and equipment, and practising pluriactivity for the first few years. Furthermore, these people usually work for at least ten years in a completely different field before coming to agriculture [Gambino et al. 2012].

Another new trend in agriculture is the increasing arrival of women in the sector. Once only farmers’ wives, now they run their own businesses. Over the last 20 years, 30% of newcomers were women [MSA 2017], and mainly came to agriculture after the age of 40 [Bernier 2005]. In 2016, 41.5% constituted women [Plein-Champ 2017]. However, female newcomers still face gender-related obstacles, such as the reluctance of old male farmers to sell land to them, or the reticence of bankers to give them loans.
Finally, for all these newcomers, agriculture is no longer a life-long position. Even if the age of retirement is quite high, many farmers now quit agriculture before the age of 60 or even 40, and move to another sector [Gambino et al. 2012]. Hence, during the first years of the 21st century, 40% of quitters were under 55 [Bernier 2005]. To conclude, the government now considers the arrival of outsiders in agriculture, which has kept increasing since 1980, to be the most important tool to solve the ageing of the farming population and boost agriculture.

CONCLUSIONS

Structural changes, including employment transformation, are certainly an important part of economic studies. Undoubtedly, shocks which affected the whole of Europe, such as the first and second world wars, had an impact on agricultural employment. Demographic processes, conditioned by these shocks, also influenced the labour supply of rural residents. The trend of leaving rural areas in favour of moving to urban ones, and a decrease in the number of small farms over a period of more than a century have been observed. Current issues in agricultural employment in France include the ageing of farmers, newcomers (already related to agriculture by family and outsiders), an increase in the involvement of women as well as flows between sectors (agriculture is not a lifelong profession any more).

Referring to the three-sector hypothesis by Colin Clark, Jean Fourastié and Allan Fisher, it can be concluded that France is now in “completion phase”, when the service sector dominates the employment structure. Sectoral employment patterns describing the French economy presented in the study does not directly reflect the three-sector model as France has never experienced a real period of industrial predominance, contrary to other countries, like Germany, Italy, Spain, Sweden and Poland.

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PRZEMIANY W ZATRUDNIENIU ROLNICZYM WE FRANCJI

Słowa kluczowe: struktura zatrudnienia, teoria trzech sektorów, sektor pierwszy, rolnictwo

ABSTRAKT

Badania dotyczące sektorowych zmian zatrudnienia są ważną częścią badań ekonomicznych poświęconych przemianom strukturalnym i tradycyjnie są wskazywane przy opisywaniu wzrostu gospodarczego. Jednocześnie zatrudnienie w rolnictwie jest badane jako ważna cecha charakteryzująca obszary wiejskie. Głównym celem artykułu jest zbadanie transformacji zatrudnienia w rolnictwie we Francji od początku XX wieku. Cele szczegółowe obejmowały prezentację zmian w zatrudnieniu w tym sektorze oraz ich głównych determinant. Odniesiono się do teoretycznej koncepcji trzech sektorów autorstwa Colina Clarka, Jean Fourastié i Allana Fishera. Można stwierdzić, że Francja znajduje się obecnie w „fazie dopełnienia”, gdy w strukturze zatrudnienia dominuje sektor usług. Jednak francuska gospodarka nigdy nie doświadczyła prawdziwego okresu dominacji sektora przemysłowego, wskazywanego w teorii trzech sektorów. Aktualne kwestie związane z zatrudnieniem we francuskim rolnictwie obejmują: starzenie się zasobów pracy, osoby nowo napływające (już związane z rolnictwem przez rodzinę lub osoby z zewnątrz), rosnące uczestnictwo kobiet oraz przepływy między sektorami (rolnictwo nie jest już zawodem na całe życie).

AUTHORS

NINA DREJERSKA, DR HAB.
ORCID: 0000-0001-7591-8121
Warsaw University of Life Sciences – SGGW, Poland
Faculty of Economic Sciences
Department of European Policy and Marketing
166 Nowoursynowska St., 02-787 Warszawa, Poland

ELENA FOURCROY, BSC
ORCID: 0000-0001-7767-0174
Universite Clermont Auvergne
49 Boulevard François Mitterrand, 63000 Clermont-Ferrand, France
VETAGRO SUP – Campus Agronomique
89 Avenue de l’Europe (63370 Lempdes), France