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Problems encountered with farm transfers: the case of Brittany

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Abstract

Farm transfers in industrialised countries are a major element of the structural change seen in agriculture today. In France, farm transfers represent a key strategic issue with half of all farm heads being over 50 years old in 2010 and therefore due to retire in the next ten or fifteen years. The purpose of this paper is to contribute to our understanding of the issues and problems associated with the farm transfer process, taking the French region Brittany as a case study. A review of the literature, rounded out by interviews with public and professional stakeholders involved in the transfer and settling processes, identifies certain key aspects, which are borne out by a survey of 15 farmers established for less than five years and 25 farmers eligible for retirement in the next ten years in Brittany.

Keywords: transfer, farm, future transferor, newly settled farmer, investment strategies

JEL classifications: Q12

Difficultés rencontrées lors de la transmission d'exploitations agricoles : le cas de la région Bretagne

Résumé

La question de la transmission en agriculture dans les pays industrialisés est un élément majeur du changement structurel. En France, c'est aujourd'hui un enjeu crucial puisqu'un chef d'exploitation sur deux était âgé de plus de 50 ans en 2010 et partira ainsi à la retraite au cours des dix ou quinze prochaines années. L'objectif de cet article est de contribuer aux connaissances sur les enjeux et les difficultés liés au processus de transmission en agriculture, avec la Bretagne comme cas d'étude. Une revue de littérature, complétée par des entretiens auprès d'acteurs publics et professionnels intervenant dans le parcours de transmission et d'installation, a permis de mettre en lumière certains aspects clefs, confirmés par une enquête auprès de 15 agriculteurs installés depuis moins de cinq ans et de 25 agriculteurs pouvant partir à la retraite au cours des dix prochaines années en Bretagne.

Mots-clés : transmission, exploitation agricole, futur cédant, nouvel installé, stratégies d'investissement

Classifications JEL : Q12

Problems encountered with farm transfers: the case of Brittany

1. Introduction

From November 2012 to July 2013 in France, regional settlement forums were held in order to discuss farm transfer issues and problems to help prepare the 2014 French Agricultural Policy Act (*Loi d’Orientation Agricole*, LOA).¹ At regional level, for example, farm transfer support points were set up at the Brittany Regional Chamber of Agriculture in late 2014 (Chambres d’Agriculture de Bretagne, 2014). Farm transfers in industrialised countries are shaping up as a major issue in agriculture today. The question of farm continuity has been raised recently in Japan (see, for example Souma and Kiminami, 2011) and across the Atlantic where the 2008 U.S. Farm Bill ushered in an agricultural settling support programme based on loans and different bank guarantee systems. This measure was recently scaled up with the 2014 U.S. Farm Bill (USDA, 2014).

A number of terms can be found in the literature in relation to transfers: transfer, sale, takeover, settlement, succession, *etc.* Our definition of transfer here is the handover of an agricultural holding in its entirety or near entirety, or the handover of one activity (or of shares) of a holding, from a transferor to a transferee. This means that it implies at least one settlement per retirement unlike farm fragmentation, which can only serve to expand existing farms at the expense of settlement. Transfers can be made intra-family,² with the farm passed from one generation to another, or outside of the family with the sale of the farm to a person external to the family. A number of tangible and intangible assets can be involved in the transfer: owned and/or rented land, farm buildings, the farmhouse, farm machinery, the livestock, agricultural production rights, shares in the company, debts, know-how, management, soil-climate conditions, and the rights inherent in the business (Lobley *et al.*, 2010; David, 1988). Transfers may be made in a single move or stepwise. Successors may also gradually take over from within the farm, *e.g.* as partners.

¹ <http://agriculture.gouv.fr/Assises-de-l-installation> (consulted on 2 July 2014)

² We define intra-family farm successions as those from a family member up to third-degree kindred. On a family tree, there is one degree between parent and child, and three degrees of kindred between an uncle and his nephew. Outside of the family structure, the transferee has no family link with the transferor.

When transferees take over the farm, they may continue to run the farming already in place, introduce new activities or change the type of farming altogether.

Assistance with farmers' transfer processes comes mainly from private or semi-private stakeholders (banks, accounting centres, chambers of agriculture, *etc.*), since the public authorities do not really focus on the future transferors and concentrate rather on young farmers, starting out with the Young Farmer Premium (*Dotation Jeune Agriculteur*, DJA) allocated to beginning farmers who meet certain terms including an age criterion (less than 40 years old). Transferors have historically received little assistance and support to transfer and maintain their production tool, although they did benefit from retirement policies with the *Indemnité Viagère de Départ* (IVD) retirement bonus in the post-war economic boom period and an early retirement scheme from 2004 to 2008 (Gault *et al.*, 2013a). Private players offer assistance and/or advice at the request of their customers. For example, the Crédit Agricole des Côtes d'Armor regional bank has had outreach services on offer since 2012 for its farmer customers over 52 years old to inform them and help them prepare the farm for transfer. The chambers of agriculture offer support services provided by their transfer consultants. For example, financial assistance is granted to farmers who register with the Retirement-Settlement Register (*Répertoire Départ-Installations*, RDI). This €4,000 grant, half of which is covered by the European Agricultural Fund for Rural Development (EAFRD), is earmarked for sellers who are looking to transfer to a young farmer (under 40 years old), outside the seller's family, who is setting up for the first time. Transfer consultants also carry out diagnoses of the farm's situation, study its transferability and propose different transfer scenarios. The assistance with conducting the diagnosis is 80% subsidised and capped at €1,000 (Le Bars, 2014). The 2014 LOA contains few farm transfer measures. The Declaration of Intent to Retire from Farming (*Déclaration d'Intention de Cessation de l'Activité Agricole*, DICA) will be lengthened from 18 months to four years, which will place farmers on the RDI in the chambers of agriculture sooner than is currently the case. A subsidy will be paid to farmers over 57 who take on a young person aged 26 to 30 on their farm to whom they intend to gradually transfer their tool (Gastchine and Pichot, 2013).

Transfers form a crucial issue today as half of all farm heads in France were over 50 years old in 2010 and are therefore due for retirement in the next ten or fifteen years (Gault *et al.*, 2013b). Yet, as mentioned earlier, retirement is not always followed by a new settlement (see Appendix 1). France counted 12,453 new settlements in 2012, which was 41% less than in 1997 (Pelc,

2014). The Western region posted the highest number of new settlements, with nearly one thousand of these in Brittany in 2012 (Eoloas, 2014). However, this region saw one new settlement per young person under 40 years old for every three retirements of farmers over 50 years old in 2012 (Chambres d'Agriculture de Bretagne, 2014). The farm transfer is a major element of the structural change taking place in agriculture today. Gaining a fuller understanding of this phenomenon could help steer certain policies based on their strategic implications (development of farming in certain areas, thriving new farm settlements, *etc.*).

The purpose of this paper is to contribute to our understanding of the issues and problems associated with the farm transfer process, taking Brittany as a case study. It does so based on a review of the literature, interviews with experts and a survey of a sample of farms representing both parties in the process (farmers expected to transfer their farm in the next ten years and farmers established for less than five years). The rest of this paper is structured in three sections. The second section describes farm transfer issues and problems as identified by the literature and raised by public and professional agricultural stakeholders involved in the transfer process. The third section presents the farmer survey conducted, describes the methodology used for the statistical analysis and presents the findings. The last section concludes.

2. Farm transfer issues and problems: a review of the literature and expert opinions

A review of the academic and grey literature is combined here with interviews of experts. These semi-structured interviews were held with public and professional agricultural stakeholders involved directly or indirectly in the farm transfer process in Brittany in April-May 2014. The experts in question represent the following bodies: ALTEOR Transaction, the bank Crédit Agricole in Brittany, the accounting centre CER d'Ille-et-Vilaine, the Regional Chamber of Agriculture in Brittany, the Regional board of Brittany and SAFER³ in Brittany. The main purpose of the interviews was to identify each stakeholder's role in the transfer and settling processes, and find out their views on farm transfer issues and problems encountered by farmers in their farm transfers and settlement.

³ Land Development and Rural Settlement Agency (*Société d'aménagement foncier et d'établissement rural*, SAFER); see for example Latruffe and Le Mouél (2006).

2.1. Preparation and planning

A major problem raised in the literature and borne out by the experts interviewed concerns the transferor's lack of preparation and planning for a farm transfer. Poor transfer preparation can undermine the farm's longevity and the transferor's pension. The experts interviewed were of the opinion that a transfer strategy should be prepared five years before the chosen retirement date. However, in *La France Agricole* (2014a) special issue, notaries and advisors on asset management indicate that farmers should plan at least ten years ahead.

2.2. Farmland: a major issue

Farmland is a major transfer issue. First of all, highly fragmented farmland does not facilitate the search for a transferee. Fragmented agricultural holdings are less attractive to potential transferees, who are looking for farms with land well structured around the main farm buildings, with no discrete plots, and if possible less than 100 metres from the holding, as raised by experts interviewed. Moreover, a multitude of landowners often points to complex negotiations between the transferor, the owners and the transferee. All the landlords of the farm's different owned plots of land have to agree before the transferee can take over the lease.

In addition to the problem of a number of different landowners, potential transferees may also be reluctant to take on a farm with a large proportion of rented Utilised Agricultural Area (UAA). Even though the regulations governing tenant farming in France limit its disadvantages for the tenant farmer (for example, with long-term leases and rent control), tenant farmers may still feel that it restricts them in their production, investment and farming practice decisions. Furthermore, a not-inconsiderable proportion of farm subsidies are capitalised in the price of the land (see, for example, Latruffe and Le Mouël, 2009), which can raise (to some extent) the amount of rent charged to the tenant farmer.

On the other hand, farm ownership has its own drawback: land prices in some regions can put a brake on certain transfer processes by raising the financial borrowing requirement. For example, some of the experts interviewed mentioned land pressure in certain areas as shown by the freehold land price in the Pays de Fougères area (in the Ille-et-Vilaine sub-region), which they reported now stands at €12,000 per hectare, more than double the average price in France. Safer-SSP-Terres d'Europe-Scafr-INRA (2014) estimate the average price for non-tenanted arable and

pasture land in Brittany at €5,240 per hectare in 2013. Property financing constraints are therefore likely to weigh heavier on potential buyers in these areas.

2.3. Economic brakes

The financial borrowing requirement is a major constraint on transfers. The farm settlement and transfer observatory (Eoloas) estimates the total subsidised settling cost (*i.e.* the cost of the transfer and the cost of investment in the first three years following installation) at €285,000 on average for a sole proprietorship farm and €600,000 for a partnership farm. Such a level of capital can dissuade young farmers from taking over a farm. This problem hits some sectors harder than others, such as pig farming and vegetable growing where the value of a farm's assets is very high.

A number of values can be calculated for a farm (asset value, productive value and reimbursement value). Barthélémy (1997) estimates that the differentials between these values can be as much as triple. Take the case of a farm with an asset value of €500,000 and an economic value of just €300,000. The banks will finance €300,000 and the transferee will have to find €200,000, which represents a substantial own payment. In addition, Gault *et al.* (2013a) find that the 'key money' practice (*pas-de-porte*) in certain regions and especially in the North of France, whereby assets are sold for a higher price than their market value – a practice banned by the rural code – inflates the sale price.

The cost of investment to modernise the farm and ensure its viability following settlement is a further weight on a farmer taking over the farm. Some transferors therefore prefer to make the necessary investment themselves before they retire, in order to foster the farm's transfer. However, some farmers with no transfer plans or designated successor disinvest in their work tool and sell their assets at liquidation levels. Since the tool is no longer worth anything, these fragmented farms then serve to expand neighbouring farms (Calus *et al.*, 2008; Boinon, 2011). There are also cases where farmers continue to work beyond their retirement age without planning any kind of a transfer, which increases the risks of poor management and sell-offs of working capital. Risks of poor management refer to lack of management training, unwillingness to delegate managerial control to a successor, or decision to sale some of the farm assets to ensure future pensions (Mishra and El-Osta, 2008).

When farmers transfer their farm, they are liable for certain taxes, especially on their capital gains on business assets. A capital gain is a positive difference between a good's market value and its net book value. In the case of sole proprietorship farm, depreciable balance sheet assets purchased less than two years previous to the transfer are defined as short-term capital gains and are liable for income tax. Depreciable assets purchased more than two years previous to the transfer and land entered in the balance sheet are liable for long-term gains and taxed at 31.5%. In the case of farm companies, the difference between the purchase value and the face value of the share constitutes a capital gain. Transferors may be totally exempt if their gross production is less than €250,000 or if the transfer is due to retirement. The farm's movable property (shares and assets excluding land and buildings) and immovable property (land and buildings) are exempt when they have been held for at least 15 years (La France Agricole, 2014a). In the case of exclusively intra-family transfers, transferors who want to make a gift of their farm are liable for transfer taxes. The Dutreil Pact (see Appendix 2) reduces the level of this taxation by taxing just 25% of the value of the business after a €100,000 tax allowance for direct line succession (father or mother to son or daughter), but little use is as yet made of this measure.

In addition, the low level of pension that transferors expect to receive at retirement can encourage them to carry on farming or to keep all or part of the land owned to top up their pension.

Last but not least, note the importance of the agricultural sector's economic environment in transfer and takeover decisions. Frequent changes to the Common Agricultural Policy (CAP) support allocation rules, the accumulation of environmental constraints and growing price volatility are making the future look more uncertain, which could make transferors less willing to transfer and young farmers less inclined to take over the farms (Calus *et al.*, 2008; Wheeler *et al.*, 2012). The experts interviewed mentioned, for example, that transfers were difficult in the pig and poultry sector, especially in the light of the poultry meat crisis with the end of European chicken export subsidies. There are also few takers in the dairy cattle sector, which suffers from structurally low profitability. This can be a constraint in the case of a takeover since transferees have to cope with a longer loan repayment period.

2.4. Social brakes

The search for the ‘ideal’ buyer or seller can prove complicated. Parties need to agree not only on the price, but on the settlement date, on whether or not the farmhouse is to be sold, on the distribution of roles if a new partner is being taken on board, *etc.* This last matter is becoming increasingly important due to the development of corporate farm structures. Taking on board a new partner can bring to light existing dysfunctions within the structure and create tensions between the workers on the farm (Barthez and Charbonnier, 2003). This points to the importance of defining a joint strategy and division of tasks accepted by all the partners (La France Agricole, 2014b).

Psychological aspects also need to be taken into consideration, since some transferors find it hard to let their work tool go (Lobley *et al.*, 2010). Selling a farm to a person outside the family may also be seen as a failure (Barthez and Charbonnier, 2003). In the case of an intra-family transfer, children can sometimes pay a very high price for their parent’s farm, which is why *pax familia* is the guardian of close relations between all the family members and prevents information asymmetry (things left unsaid) at the time of the transfer (La France Agricole, 2014b).

2.5. Administrative brakes

Last but not least, among the problems often raised in the literature and by the experts is the administrative complexity of the transfer process and the resulting timeframe. The transferor is subject to a control by the farm structures commission, in addition to other controls by the chamber of agriculture and the Agricultural Steering Commission (*Commission Départementale d’Orientation Agricole*, CDOA). This lengthens the transfer timeframe, which can take 18 months when the transferee takes approved settlement training before starting up in the farm business (Gault *et al.*, 2013b). Added to this is the time it takes to find the ‘ideal’ buyer or seller. The experts interviewed reported that potential buyers registered with the Retirement-Settlement Register and looking for a sole proprietorship farm take approximately two years to find the farm they want.

Barthez and Charbonnier (2003) also note that political conflicts can hold up or even block transfers altogether. Some farm unions compete in production areas, with each one supporting a

different potential buyer for the same farm. This competition can jeopardise the negotiations between seller and buyer.

3. Survey of a sample of farmers in Brittany

3.1. Survey description and statistical methodology

A sample of 15 farmers established for less than five years (hereafter ‘newly settled farmers’) and 25 farmers over 50 years old who had not yet transferred their work tool (hereafter ‘future transferors’) were interviewed face-to-face in May-June 2014. The survey covered the four sub-regions of Brittany region. Respondents were not selected by a stratified sampling procedure from among all Brittany farmers: the abovementioned experts, especially Crédit Agricole experts, provided contact names and only those farmers who were willing and available were interviewed.

The survey set out to identify the main farm transfer problems encountered with a focus on the investment behaviour of future transferors before the farm transfer. The questionnaire consisted of open-ended questions and closed-ended questions with a view to collecting qualitative and quantitative information. The qualitative information concerned mainly the farm transfer problems encountered. A list of potential problems, selected on the basis of the literature review and interviews with professional stakeholders, was put to respondents who chose which ones they had encountered. They also had to choose the main problem they had encountered from this predefined list. Transferors were additionally asked to describe their investment behaviour before the transfer. The quantitative information concerned the transferred farm’s structural and financial characteristics. This information was collected with a view to explaining the behaviour identified by the qualitative questions.

A statistical analysis produced a typology of respondents based on the problems encountered with their settlement (for the newly settled farmers) and their transfer process (for the future transferors) as well as the main problem encountered. This entailed a hierarchical cluster analysis for each of the two sub-samples: the sub-sample of the 15 newly settled farmers and the sub-sample of the 25 future transferors. Hierarchical clustering divides sample individuals into groups (or clusters). So instead of having a single snapshot of the whole sample of individuals, the approach identifies behavioural trends for each cluster (Husson *et al.*, 2009). We used the Ward method to statistically cluster individuals by their similarities based on distances calculated by the

sum of variance (Hair *et al.*, 1998). The number of clusters can be statistically determined based on the Duda-Hart indices, *i.e.* a high $Je(2)/Je(1)^4$ index value and a low pseudo- t^2 value (Milligan and Cooper, 1985). The number of clusters can also be determined *ad hoc* to keep the interpretations easy to read. Once the clusters have been put together based on the answers to the questions about problems, the individuals' profiles are identified based on each cluster's average characteristics. Too many clusters would make these profiles hard to interpret.

3.2. Results for the newly settled farmers

Table 1 presents the descriptive statistics for the 15 newly settled farmers met. They are 32 and a half years old on average, two-thirds of them are over 30 years old, and the oldest is 42 years old. One-third of them have a university degree. They work an average working week of 60.7 hours, in a bracket ranging from 45 to 80 hours, with nearly two-thirds working over 60 hours a week. Just one of these newly settled farmers has an off-farm job. Seven of the 15 newly settled farmers report an intra-family settlement with the other eight setting up in business outside the family structure. On average, respondents have been in business for 45 months, with one-third established for less than 30 months and one-third for more than 60 months.

Table 1: Descriptive statistics on the 15 newly settled farmers interviewed

Variables	Average	Standard deviation	Minimum	Maximum
Age	32.5	5.2	25	42
Working week (hours)	60.7	9.2	45	80
Value of the farm taken over (€)	245,607	171,185	67,000	64, 000
UAA (hectares)	63.8	55.6	2	170
Owned UAA (hectares)	8.9	11.7	0	40
Rented UAA (hectares)	51.1	50.5	0	170

Source: authors' calculations.

⁴ $Je(2)/Je(1)$ is defined as the ratio between the sum of squared errors within clusters when the data are divided into two clusters, and the sum of squared errors when only one cluster is present.

The newly settled farmers interviewed operate an average UAA of 63.8 hectares, 8.9 hectares of which they own. The latter figure confirms that land is more rarely transmitted than the rest of the farm capital. The smallest farm in the sample has a UAA of two hectares and the largest has a UAA of 170 hectares. The average value of the farm taken over is €245,607 with, here too, a broad variation in values across the sample ranging from €67,000 to €641,000. Only one respondent set up without the help of the Young Farmer Premium. Two-thirds of the 15 newly settled farmers have a partnership farm and one-third run a sole proprietorship farm. One-third operate a pig/poultry farm, while the others operate various other types of farm. One-third are organic farmers.

The most important aspects sought by the newly settled farmers in their choice of farm to take over were the type of farming (53% of respondents), well-structured land (40% of respondents) and good profitability (40% of respondents).

Table 2 presents the settlement problems encountered by the newly settled farmers (the problems are those proposed to respondents from a predefined list and are not exclusive), and Table 3 presents what the newly settled farmers see as their main problems (the same list is used, but this time the problems are exclusive). Table 2 shows that the box ticked by the largest proportion of newly settled farmers is the administrative control problem (control by commissions). Basically, 47% of respondents feel that the administrative controls were a problem (among others) during their settlement process. The second problem on which most respondents agreed (27%) concerns bureaucracy (especially the timeframes) and the third problem (20% of respondents) has to do with financing the capital. Administrative controls and bureaucracy therefore come out on top of all the problems (cumulative 74% of respondents).

This is borne out by Table 3, which shows the share of respondent newly settled farmers by their chosen main problem. The largest share of respondents (20%) point the finger at administrative controls as being the main problem, followed by bureaucracy (13% of interviewees), financing the capital (13% of respondents) and neighbourhood reluctance with regard to the project (13% of interviewees).

Note that problems ‘other’ than those proposed in the list are actually given by the largest proportion of respondents in both tables. Yet this category covers various problems such as a

constrained choice of farm, a lack of certain specific advice, a lack of understanding of certain subsidies, finding customers, finding land, *etc.*

Table 2: Percentage of respondent newly settled farmers by settling process problems

Problems	Percentage of newly settled farmers
Competition with more than one potential transferee	7%
Farm fragmentation	7%
Agreement needed from multiple landowners	0%
Financing the land	7%
Financing the capital	20%
Transfer timeframe	0%
Negotiations with the transferor	13%
Administrative controls	47%
Lack of advice and assistance from the chamber of agriculture	13%
Finding farmland	7%
Bureaucracy	27%
Neighbourhood reluctance	13%
Constrained choice of farm	13%
Start-up timeframe	13%
Other problem	53%

Note: The problems on this predefined list were proposed to the respondents and they are not exclusive.

Source: authors' calculations.

Table 3: Percentage of respondent newly settled farmers by main settling process problem

Main problem	Share of newly settled farmers
Competition with more than one potential buyer	7%
Financing the capital	13%
Administrative controls	20%
Bureaucracy	13%
Neighbourhood reluctance	13%
Other main problem	20%
No main problem	13%

Note: The problems on the predefined list of Table were proposed to the respondents, and they are exclusive. The problems in Table 2 that do not appear in Table 3 are those that were not chosen by respondents as being a main problem (0% of respondents).

Source: authors' calculations.

We then hierarchically clustered the respondent newly settled farmers by problems encountered with their settlement, both non-exclusive problems and the main problem chosen from this list of problems. The dendrogram and Duda-Hart indices (highest possible $Je(2)/Je(1)$ index value associated with lowest possible pseudo- t^2 value) obtained for this hierarchical cluster analysis of the 15 newly settled farmers turned up two groups as being statistically appropriate, but one of the two groups contained 14 individuals whereas the other group had just one individual. We therefore withdrew the lone individual and reclustered the remaining 14 newly settled farmers. The results showed then that three groups were appropriate, but that one group had 11 individuals while each of the other two groups had a small number of individuals (one and two individuals respectively), making it hard to interpret the results. We again withdrew these lone individuals in order to cluster the 11 remaining individuals. We subsequently selected two groups (with eight and three individuals respectively) on the basis that the associated pseudo- t^2 was one of the lowest even though the $Je(2)/Je(1)$ ratio was not the highest (see Appendix 3).

With respect to the variables used to create the groups, only the main problem differentiates the two groups statistically. The group with three individuals considers that the main settlement problem is with the administrative controls, whereas the group containing eight individuals points up a range of main problems. Regarding the identification of the two groups' profiles, a statistically significant difference is observed solely for the opinion of the settling assistance measures. The group containing eight individuals believes that these measures are adequate, whereas the group of three individuals, who all feel that administrative controls are the main problem, deems that the assistance measures are inadequate.

3.3. Results for the future transferors

Table 4 presents the descriptive statistics for the 25 future transferors met. They are 56.8 years old on average and have been the farm head, or senior farm partner in the case of partnership farms, for 15 to 40 years. None has a university degree. The majority of them (84%) do not have an off-farm job. The 16% who do have off-farm waged employment work this job 46.5% of their working week on average.

The future transferors interviewed operate an average UAA of 86 hectares, with an average of 47.5 hectares of this area rented. Here again, the sample covers a wide range of sizes with 38

hectares for the smallest UAA and 230 hectares for the largest UAA. Two-thirds of the sample are partnerships and 20% are sole proprietorship farms. Some 36% of the respondents work a dairy cattle farm while 28% are specialised in crop-livestock farming. A total of 12% of the respondents are organic farmers.

Table 4: Descriptive statistics on the 25 future transferors

Variables	Average	Standard deviation	Minimum	Maximum
Age	56.8	3.00	50	61
Timeframe before transfer (months)	48.7	33.3	3	120
UAA (hectares)	86.0	49.5	38	230
Owned UAA (hectares)	28.2	24.7	5	100
Rented UAA (hectares)	47.5	38.3	4	174

Source: authors' calculations.

All the future transferors interviewed plan to transfer their work tool, 80% of them in its entirety in one shot and 20% of them step by step. Only one future transferor among the respondents has not yet set an approximate transfer date. Half of the interviewees know who their successor will be and have chosen mainly a family member. Three-quarters of the future transferors interviewed want to retain ownership of some of the farmland, on average 24.5 hectares. Lastly, it is worth mentioning that the 2013 CAP reform has not made them change their transfer date.

Looking at investment strategies prior to transfer, 56% of the future transferors interviewed would like to scale up their investment and 40% merely wish to maintain the same level of investment in their work tool. Just one respondent said he would like to disinvest. Among the future transferors who would like to invest more, 86% want to do so in preparation for the future development of their farm. Of the future transferors who are maintaining their level of investment, 60% are doing so to comply with standards or to renew their capital. Note also that, in their strategies to prepare their farms for transfer, 64% of the farmers would not change their investment choice if the CAP subsidies were to stop in 2020.

Table 5 presents the main transfer process problems encountered by the future transferors (the problems are those proposed to the respondents from a predefined list and are exclusive). The

figures show that the future transferors interviewed feel that the main problem, from the list put to them, is finding someone to take over the farm (20% of respondents), followed by bureaucracy and agreement with the landowners (12% of respondents in both cases).

Table 5: Percentage of respondent future transferors by main transfer process problem

Main problem	Percentage of future transferors
Farm fragmentation	8%
Relations with landowners	12%
Relations among partners	0%
Relations within the family	4%
Relations with neighbours	0%
Relations with the profession	0%
Relations with the person taking over the farm	0%
Pension level expected	4%
Farm's legal status	0%
Legal and tax arrangements with respect to the transfer	8%
Finding someone to take over the farm	20%
Transfer timeframe	0%
Bureaucracy	12%
Retirement and settling dates do not coincide	0%
Other main problem	12%
No main problem	16%

Note: The problems on this predefined list were proposed to the respondents, and they are exclusive.

Source: authors' calculations.

As with the newly settled farmers, the hierarchical cluster analysis was conducted for the future transferors based on the problems they selected and the factor they identified as being their main problem. The dendrogram and Duda-Hart indices identified two groups (the value of $Je(2)/Je(1)$ is one of the highest and pseudo- t^2 is one of the lowest) (Appendix 4). The two groups contained 19 and 6 individuals respectively. These groups were statistically different in terms of two variables used to conduct the cluster analysis: having a problem with finding someone to take over the farm, and the main problem also being with finding someone to take over the farm. This search is the most problematic for the majority of the group of 6 individuals, whereas the 19 individuals in the other group are divided among a number of problems: farm fragmentation, poor relations with the landowners, legal and tax arrangements with respect to the transfer, and bureaucracy. A

statistical comparison of the characteristics of each group shows that the two groups' profiles are statistically different in terms of the presence of someone to take over the farm. To be more precise, the group of 6 individuals, who cite finding someone to take over the farm as their main problem, do not have a successor. Yet 68% of the future transferors in the other group know who their successor will be and 77% of them have chosen a family member.

4. Conclusion

This paper conducts a review of the literature rounded out by interviews with public and professional stakeholders involved in the transfer and settling processes. In so doing, it provides an overview of the issues and problems encountered by newly settled farmers and future transferors with their settling and transfer processes. A survey of 15 recently established farmers (newly settled farmers) and 25 farmers eligible for retirement in the next ten years (future transferors) in the French region Brittany provides further details on certain points.

This study hence draws a number of interesting conclusions, even though it calls for more in-depth research with statistical analyses on a larger sample of farmers more representative of the range of situations.

The first conclusion is that of a certain buoyancy of transfers in the Brittany region, with support (consultants, accountants, bankers, *etc.*) seen as satisfactory by most of the people interviewed. Nevertheless, administrative complexity and bureaucracy are key aspects that could undermine this buoyancy in the future. These aspects, singled out in the literature and by the experts, are also raised by the farmers interviewed, both newly settled farmers and future transferors (especially in cases where the successor has not yet been identified).

Secondly, we observe that some future transferors plan for their transfer by adopting a specific investment strategy in order to save the person taking over the farm from having to make these investments, foster the continuity of the productive activity and hence reduce the total takeover cost. On this point, it is worth highlighting that farmers really do need to plan for their farm transfers. Planning serves not only to define the investment strategy, but also to find the ideal person to take over the farm, complete the administrative and financial paperwork, manage relations with the stakeholders (family, neighbours, landowners, *etc.*) and thus best prepare the farm's longevity and the transferor's retirement. This is especially important where a successor

has not been identified, as shown by the results of the hierarchical cluster analysis for the respondent future transferors: the main problem for those who do not yet know who their successor will be, is precisely the problem of finding someone to take over the farm.

Various support tools could be used to alleviate the problems encountered. For example, systematic outreach by public and private players to familiarise farmers with the transfer process ten years before their legal retirement age could help them prepare for the administrative, tax, legal and land issues and lift uncertainties over the future of their production tools. In addition, the intergenerational farming contract (*Contrat de Génération*) tabled and passed in the 2014 LOA could prove a way for a successor to gradually take over the reins, as the transferor gradually retires while passing on his or her expertise and securing the future of the farm.

Lastly, mention should be made of two points not specifically addressed in this article, but which warrant more in-depth research. The first point concerns the rise in settlements of partnership forms. This could point to a need for those taking over the farms to have management skills since they need to be capable of managing all the economic, human and technical aspects involved in running their farm. The second point concerns farmland, which could prove to be a crucial problem in coming years as transferors rarely transfer all the land they own. This practice is gradually shrinking the amount of land owned by newly settled farmers. The constraints generally associated with the lack of land ownership by farmers (*e.g.* higher credit constraints, lower investments, capitalisation of farmers' subsidies into rental prices) are however attenuated in France due to the favourable tenancy rules (rental contracts of nine years, upper limits in rental prices, see *e.g.* Latruffe and Le Mouël, 2006a and 2006b).

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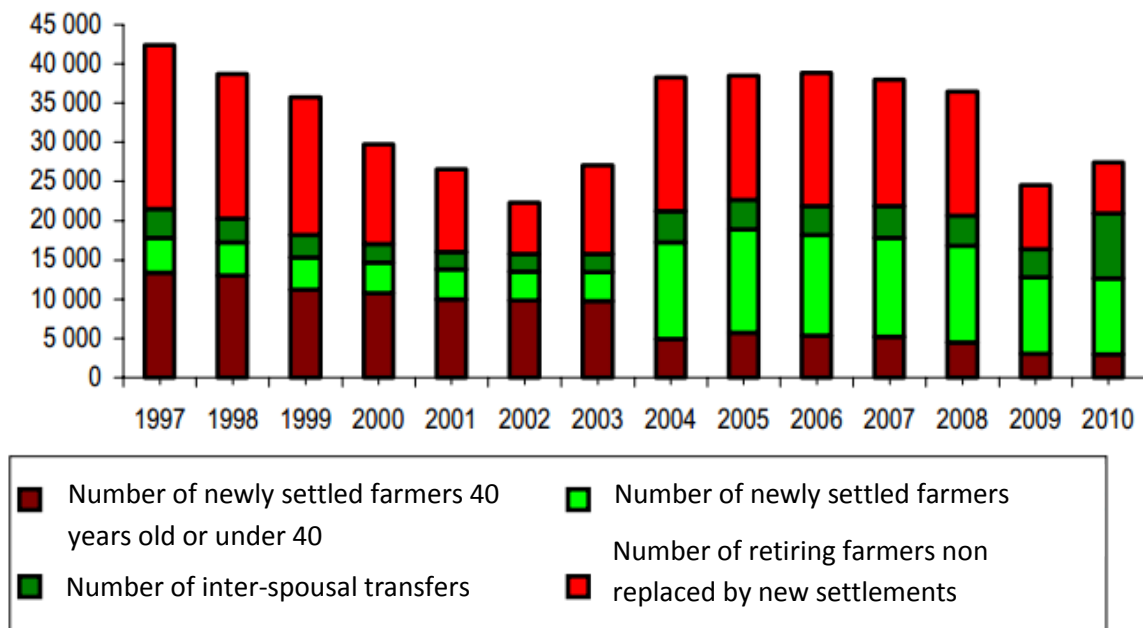
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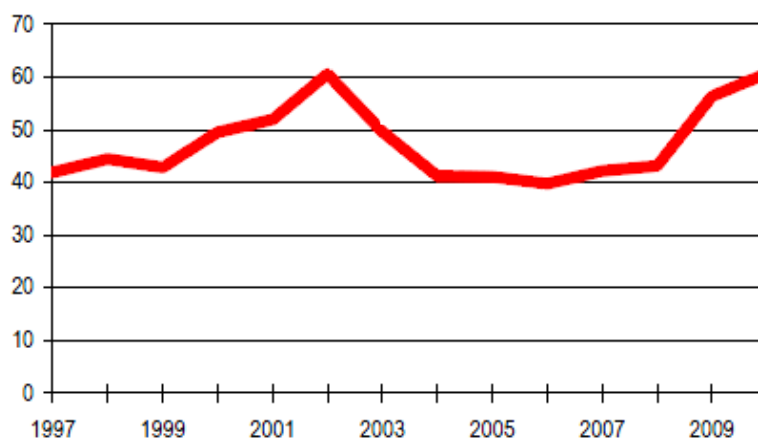
Appendix 1: Illustrating graphs on farm transmission in France

Figure A1: Evolution of the number of farm settlements in France between 1997 and 2010



Source: adapted from APCA (2013)

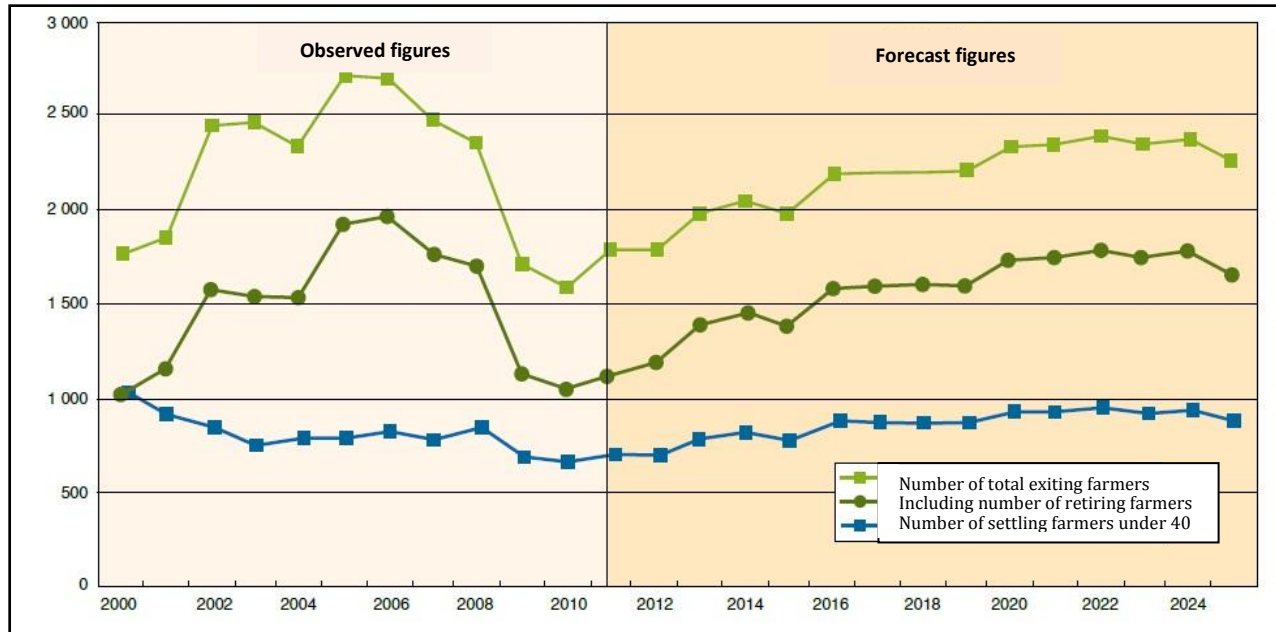
Figure A2: Replacement rate of farms in France between 1997 and 2010



Note: the replacement rate (in %) is the number of newly settling farmers to 100 retiring farmers.

Source: adapted from APCA (2013)

Figure A3: Evolution of the number of exiting farmers and of settling farmers under 40 in Brittany between 2000 and 2025



Source: adapted from Le Bars (2013)

Appendix 2: Dutreil Pact

The Dutreil Pact has been set up in 2003 in order to reduce fiscal costs of a company or private equities transfer in a family framework. Article 787 B from the French General Tax Code (GTC) allows partial tax exemption of transfer rights in case of donation or inheritance. This tax exemption amounts to 75% of the private equities or the company value. Therefore, only 25% of the company value is taxed. The private equities or company transfer must take place in case of full ownership or asset stripping (usufruct or bare ownership).

General terms and conditions:

- Be a company whose economic activity is industrial, commercial, handmade, agricultural or liberal.
- When the pact is anticipated before the transferor's death, each heir has to hold the company or the private equities for four years.

Case of a sole proprietorship farm:

- The transferor must have held the farm for more than two years before donating it. The farm has to be retained by the child or children who acquire it, and one of the owners has to be the main farm operator for three years.
- When a pact is signed after the death of the transferor, the transferee must follow the same above-mentioned rules.

Case of a partnership farm:

- When the pact is anticipated by the transferor, the latter has to be the main partner and one of the children can integrate the partnership farm. Both parties must commit to retain their shares for at least two years, and they benefit from tax exemption at the donation time in full ownership or in bare ownership.

-When a pact is signed after the death of the transferor, the main partner or the main partners of a farm have to commit collectively in the next six months to retain their shares for two years. Moreover, each partner has to commit individually to retain the shares for another four years.

Computation example for a donation:

Mr X gradually incorporated his son in his farm company in view of the farm transmission. Private equities of the farm are valued at €400,000. Mr X holds 60% of the shares and owns 70 hectares of land valued at €280,000. He decides to donate the shares and the land owned to his son.

Mr X signed a Dutreil Pact. As in the case of a partnership farm, the Dutreil Pact applies only to the shares, Mr X put the 70 hectares of land into the capital shares. Hence, the donation amount is €680,000.

Transfer rights with the Dutreil Pact:

Dutreil Pact allowance tax (25%): $680,000 \times 25\% = €170,000$

Donation in direct kinship allowance tax: – €100,000

Thus, tax base: €70,000

Transfer rights owed, based on the tax scale listed below:

$8,072 \times 5\% = €403$

$(12,109 - 8,072) \times 10\% = €404$

$(15,932 - 12,109) \times 15\% = €573$

$(70,000 - 15,932) \times 20\% = €10,813.6$

Total	€12,193.6
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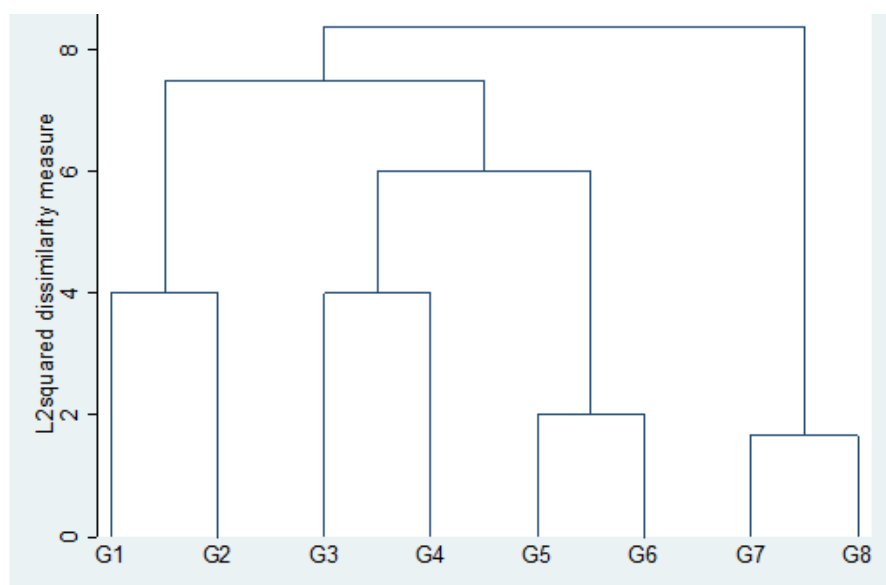
Table A1: Tax scale (article 777 from the GTC)

Fraction of net taxable part	Applicable rate (%)
Below €8,072	5
Between €8,072 and €12,109	10
Between €12,109 € and €15,932 €	15
Between €15,932 € and €552,324	20
Between €552,324 € and €902,838	30
Between €902,838 and €1, 805,677	40
Beyond €1, 805,677	45

Source : La France Agricole (2014a)

Appendix 3: Dendrogram and Duda-Hart indices for the hierarchical cluster analysis of respondent newly settled farmers by problems encountered with their settling process (cluster analysis on 11 individuals)

Figure A4: Eight-group dendrogram



Source: authors' calculations.

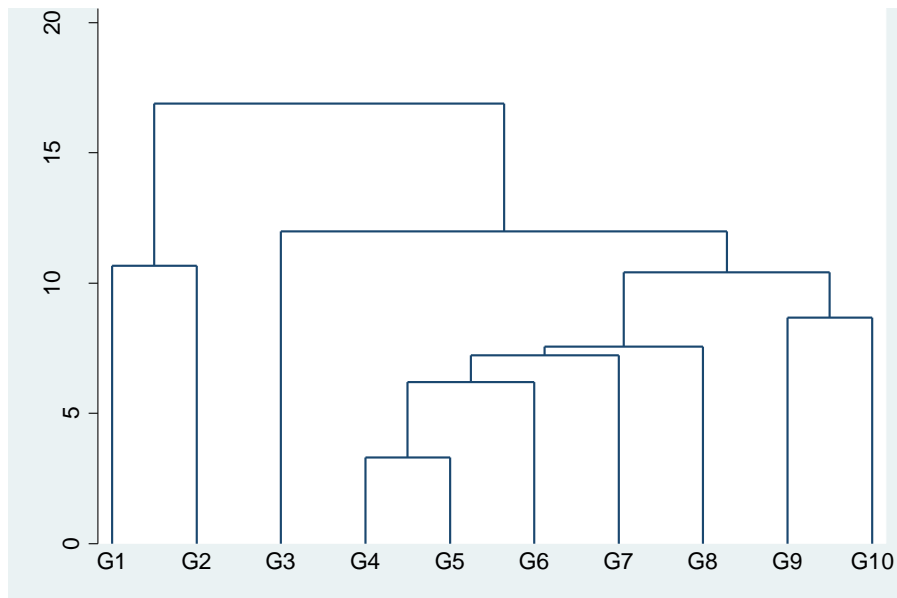
Table A2: Duda-Hart indices by number of groups

Number of groups	Je(2)/Je(1)	Pseudo-t ²
1	0.7575	2.88
2	0.6809	2.81
3	0.5000	3.00
6	0.0000	-
7	0.3750	1.67
8	0.0000	-

Source: authors' calculations.

Appendix 4: Dendrogram and Duda-Hart indices for the hierarchical cluster analysis of respondent future transferors by problems encountered with their transfer process (cluster analysis on 25 individuals)

Figure A5: Ten-group dendrogram



Source: authors' calculations.

Table A3: Duda-Hart indices by number of groups

Number of groups	Je(2)/Je(1)	Pseudo-t²
1	0.8278	4.78
2	0.8199	3.74
3	0.2727	10.67
4	0.7991	3.52
5	0.2778	7.80
6	0.7431	3.11
7	0.6543	3.70
8	0.4364	5.17
9	0.3125	6.60
10	0.3333	6.00
11	0.0000	-
14	0.0000	-

Source: authors' calculations

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