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Juan Carmona and James Simpson

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Recent literature on sharecropping has emphasized its importance in reducing problems associated with moral hazard in cultivation (Tuscany), or in providing an important 'rung' on the farm ladder (US South). Yet despite these and other important features, sharecropping is surprisingly absent in many, if not most other settings. Using case studies associated with French wine production, this paper argues that a number of factors have often been overlooked in the literature: 1) the need for landowners to be able to offer farms that were both sufficiently large to employ full time the sharecropper's family, and allowed them to produce a variety of products to minimize risk; 2) measurement problems associated with the division of the harvest, especially when quality was an important factor in determining farm price; 3) and the nature of vertical co-operation and integration associated with the production and marketing arrangements of individual crops explains that landowners were not indifferent to receiving payment in cash or kind, and this affected contract choice. This paper incorporates these ideas to explain not just the presence and absence of sharecropping in different geographical localities, but also the wide variety of different forms of the contract that existed in Europe.

Economic historians in recent years have shown considerable interest in institutions that govern economic transactions. The current revisionist views have emphasized how institutions as diverse as craft guilds, serfdom, or the Maghribi traders were economically efficient in overcoming problems of asymmetrical information and missing markets.² Sharecropping is one institution which has been radically reinterpreted over the past couple of decades, and while the Physiocrats or Adam Smith considered it a major break on agricultural growth, and hence economic development in France, many economists today believe it a useful contract for resolving problems associated with risk, moral hazard, or a tenant's lack of collateral. This paper argues that the rehabilitation of European sharecropping by economic historians has been exaggerated, being based on just a handful of examples, usually from wine producing regions.³ These studies present seemingly good arguments to explain the use of the

¹ Financial assistance has been provided by SEJ 2006-08188/ECON and ECO2009-10739.

² Recently Sheilagh Ogilvie ('Economic Institutions') has argued that negative externalities, such as rent-seeking, offer as good, if not better explanation for their presence.

³ For the links between sharecropping and viticulture, see in particular, Hoffman, 'Sharecropping'; Epstein, 'Tuscans'; Cohen and Galassi, 'Sharecropping and Productivity'; Galassi, 'Tuscans'; Carmona and

contract in localities as diverse as Tuscany, Burgundy, or Catalonia, but fail to explain why the contract was not found elsewhere.⁴

A number of factors have often been overlooked in the literature, including the need for landowners to be able to offer farms that were both sufficiently large to employ full time the sharecropper's family, and allowed them to produce a variety of products to minimize risk. In addition, although the literature has emphasized the advantages to be gained with using sharecropping contracts to monitor labour, it has overlooked the equally important measurement problems associated with the division of the harvest, especially when quality was an important factor in determining farm price. Another shortcoming is that contract choice has usually been considered as an annual bargaining game between two non-competing economic agents, when in reality agriculture requires both cooperation and long term investment in fixed assets such as soil fertility, buildings or trees. Finally too little attention has been given to the nature of the commodities actually produced, and in particular why landowners might be happy to receive fifty per cent of the harvest on some occasions, but at other times demand cash with fixed rent agreements, or all the harvest when using wage labour. By ignoring other production decisions which determined the boundaries and governance structure of the farm, and in particular the extent and consequences of vertical integration found in agriculture and the processing and marketing of farm produce, the literature fails to fully understand the nature of contract choice. This paper incorporates these ideas to explain not just the presence and absence of sharecropping in different geographical localities, but also the wide variety of different forms of the contract that existed in Europe. It considers France which, along with Italy, was the European country most closely associated with sharecropping, and looks at viticulture, the crop most frequently cited in the literature as being suitable for the contract.

The first section examines the recent literature on sharecropping and the organisation of the farm, and argues that contrary to accepted opinion, the contract was unlikely to be present in viticulture. If this was the case, then landowners needed to develop alternative contracts which they considered were more efficient. Section two looks at contract choice with fine wines (Bordeaux, Burgundy and Champagne), and this is followed by a section on premium wines where sharecropping was used (Beaujolais). Section four looks at the presence of the contract on the large estates

Simpson, 'Rabassa Morta'; Akerberg and Botticini, 'Agrarian Contracts'; Akerberg and Botticini, 'Endogenous Matching'; and Biagioli, 'La Mezzadria Poderale'.

⁴ Federico, *Feeding the World*, notes the rarity of sharecropping in most countries.

producing cheap wines in the Midi, and the final one in areas of polyculture in south-west France.

1

Historically the most widespread form of organisation in agriculture is the family farm, which is competitive because of the low costs of supervising labour.⁵ In farming, output is highly sensitive to the timing and quality of effort, and often deficiencies in these areas only become apparent after the harvest. Even then, it can be difficult to determine whether a poor crop was caused by the worker's negligence or by exogenous factors such as adverse weather conditions. The family farm provides strong incentives for labour to carry out tasks diligently and over time members can acquire important human asset specific skills linked to their land, which allows them to be more productive than if they have to keep changing farms each year.⁶ Another consideration is that until recently there are only very limited economies of scale in most forms of agriculture, allowing the family to compete successfully with large estates or plantations.⁷ These characteristics, and the fact that workers seek to own land to increase their incomes and gain security for old age, implies that in traditional economies the great majority of farms are worked by their owners, even though they might occupy only a relatively small part of a country's land area. In France in 1892 for example, 85 per cent of all farms had less than 10 hectares, accounting for 30 per cent of the cultivated area. By contrast, just 2.4 per cent of farms had over 40 hectares, responsible for 37 per cent of the land.⁸

How to replicate the incentive structure for effort and careful work associated with the family farm are behind the decisions concerning contract choice taken by those owners who do not cultivate the land themselves.⁹ At different ends of the spectrum are fixed rental contracts and direct cultivation using wage labor. The major advantage of rental contracts is that they provide strong incentives for tenants to maximise output (and hence their ability to pay high rents), but they usually contain limited ones to maintain soil fertility, or care for fixed assets (buildings, trees, vines, etc.). By contrast, owners cultivating directly their land with wage labour have to create adequate

⁵ Otsuka, Chuma, and Hayami, 'Land and Labor Contracts', p.1970 suggest that 80% of the world's farms were in 1970 were cultivated by their owners.

⁶ For asset specificity, Williamson, *Economic Institutions*, p.242. See also Allen and Lueck, 'Agricultural Contracts', pp.477 and 486, and Rosenzweig and Wolpin, 'Specific Experience', p.962.

⁷ See, for example, Foster and Rosenzweig, 'Rural India', p.1.

⁸ Chevet, 'Peasant France and Capitalist Britain', Tables 3.1 and 3.2.

⁹ The French census of 1892, whose accuracy is discussed in appendix, suggests that 52.7 per cent of land was directly cultivated (*faire-valoir direct*) using family and/ or wage labour; 36.4 per cent leased (*fermage*), and 10.9 per cent sharecropped (*métayage*). France. *L'enquête ...1892*, pp.236-7.

incentives to avoid workers from both shirking and damaging fixed assets.

Sharecropping falls between these extremes, and the literature provides three broad explanations for its use: risk-sharing, producer incentives and moral hazard, and the presence of market imperfections for inputs other than land.

Farming is an inherently risky business, as not only do individual farmers face the possibilities of a total loss of their harvest because of inclement weather or disease, but prices can collapse while the crop is still in the field. Sharecropping, in contrast to fixed rental tenancies, shifts part of the risk of harvest failure to the supposedly less risk averse landowners. However, a number of objections to the tenant's risk aversion as being the determining factor in contract choice have been raised. First, landlords using fixed rental contracts are sometimes expected to help their tenants in years of poor harvests, effectively sharing risk with them.¹⁰ Furthermore, the empirical evidence provides little support for the argument that the sharecropper is more risk averse than the landowner, leading some authors to assume that both parties were risk neutral.¹¹ Finally, landowners and tenants can 'mix contracts' (i.e. workers in theory by working for several different landlords, and landlords hiring workers on a variety of contracts).¹²

Small owner-occupiers typically reduce risk by using the family endowments of land, labour and capital to produce a variety of different income streams, a feature especially important with a crop such as wine, where the coefficient of variation in the size of the harvest was four times greater than with other crops.¹³ In France there were 1.6 million hectares of vines and 1.6 million growers in the 1900s, resulting in large numbers of minuscule plots worked by part-time producers.¹⁴ If owner-occupiers sought to diversify, so would sharecroppers, and this presented a problem for large landowners to attract potential tenants, as they had to offer land that allowed multi-cropping (polyculture), or permit sharecroppers to work for others (and thereby introducing inefficiencies). To reduce monitoring costs, it was common in France and Tuscany to offer farms large enough to employ the sharecropper's family full time, and prohibit

¹⁰ Griffiths and Overton, *Farming to Halves*, pp.127-30.

¹¹ Allen and Lueck, *The Nature of the Farm*, p.10, and Akerberg and Botticini, 'Agrarian Contracts', pp. 253-4, although see also Akerberg and Botticini, 'Endogenous Matching' which does not rule out the possibility of risk in determining contract choice. By contrast, Joseph Read has argued that sharecropping reduces aggregate risk rather than redistribute it, as it created incentives for both landowners and tenant to change production plans during the growing season in response to deviations from expectations caused by factors such as adverse weather. Reid, 'Market Response', pp.125-6.

¹² Stiglitz, 'Incentives and Risk Sharing', p.219.

¹³ Toutain, 'Le produit', cited in Loubère, *The Red and the White*, p.121.

¹⁴ Lachiver, *Vignoble Français*, p.583. The 1924 census shows that almost 70 per cent of all French wines were found on holdings of less than five hectares. Our calculations, Galet, *Cepages*.

them from working elsewhere.¹⁵ However, there were potentially only a limited number of landowners who were able to offer farms of both an adequate size, and with conditions to permit sharecroppers an acceptable crop mix to reduce risk.

Alfred Marshall argued that transaction costs with sharecropping were high, because neither the landowner nor tenant received the full marginal return from increased labour and capital inputs, encouraging both to be undersupplied.¹⁶ Recent studies, by contrast, have emphasised that the transaction costs associated with effort are actually less on a family farm worked by sharecroppers, than using wage labour. Furthermore, landowners will prefer sharecropping to rental contracts when it is possible to damage fixed assets which affect future harvests (buildings, trees, soil, etc.). For example, with a crop such as the vine, output is highly sensitive to the quality and timing of labour inputs and the plant itself can be easily and permanently damaged if the pruning, ploughing, and hoeing operations are badly carried out.¹⁷ As one writer noted in 1807, 'no crop suffers more from the omission or poor quality of work, requiring many years to recover from the abuses of a single year'.¹⁸ This explains the almost total absence of rental contracts in viticulture, while the use of wage labour was rare because of the close monitoring required to reduce the risks of opportunistic behaviour of the workers was too costly for most landowners.¹⁹ Consequently Akerberg and Botticini show for Early Renaissance Tuscany that when choosing contracts, 'sharecropping seems to have been particularly dominant on those estates where perennial crops, such as olive trees and vines, were grown. Meanwhile, estates where cereals were the main crops were usually leased out for fixed-rent contracts'.²⁰ However, while sharecropping might efficiently reduce problems of moral hazard in cultivation, it created other

¹⁵ When an exact match was not possible, landowners preferred to rent farms greater than the sharecropper's labour supply, making them responsible for monitoring the effort of the additional labour. Antoine, *Fiefs et Villages*. For western France, Carmona, 'Livestock Specialization', p.239, shows that farm size was double the national average when sharecropping contracts were used in 1892. Mechanisation significantly reduced monitoring costs by the late twentieth century.

¹⁶ Marshall, *Principles*, pp.534-37. The problem is significantly reduced if the share that the tenant received was 70 or 80 per cent, as in Catalan viticulture. Carmona and Simpson, 'Rabassa Morta', p.297.

¹⁷ Galassi, 'Tuscans and Their Farms', pp.78-83, Hoffman, 'Sharecropping', p.315 and Carmona and Simpson, 'Rabassa Morta', pp.292-3.

¹⁸ Boutelou, *El Cultivo de la Vid*, p.66.

¹⁹ See especially Guyot, *Étude des Vignobles*, vol. 3, pp.668-9.

²⁰ Akerberg and Botticini, 'Agrarian Contracts', p.244. See also Allen and Lueck, 'Agricultural Contracts', p.482 who, while not specialists on Europe, write that 'land contracts were chosen in response to the costs of enforcing contracts over assets with many attributes. The dominance of cash rents in England and northern Europe can be explained as the result of the relative dominance of small grain and grass farming, similarly the dominance of cropsharing in Romance countries can be explained as the result of the relative dominance of orchard crops'.

transaction costs associated with the division of the harvest, which could be significant when quality was an important determinant of farm prices.²¹

Another common explanation for sharecropping is the presence of market imperfections for some factor input besides land. For the sharecropper, as noted, this involved supplying and supervising family labour, although they also managed hired labour, especially at the harvest.²² By contrast, the landowner's contribution included not just land, but goods such as technical know-how or managerial ability.²³ Farm management might involve not only organising the timing of activities such as the start of the harvest, but also planning responses to exogenous shifts in factor and commodity prices, or the appearance of new labour-saving or biological technologies. Landowners also sometimes supplied credit, and Arthur Young noted for France in the late eighteenth century that some tenants were simply too poor to accept fixed rental contracts.²⁴ In this case farm equipment and working capital was advanced by the landowner to the sharecropper, with the future harvest used as security. Griffiths and Overton have also recently argued that this was found on occasions in England, and that 'farming to halves' allowed the possibility of capital to be accumulated, as landowners found a productive use for their land and livestock, while tenants could become established with limited resources.²⁵ But sharecroppers sometimes did have access to credit, and at times were themselves landowners.²⁶ A market imperfection such as the tenant's inability to tap credit markets often disappeared over time, making the need for sharecropping redundant, but new imperfections could appear elsewhere, leading to the introduction of the contract.²⁷

Contract choice also needs to be linked to the nature of vertical co-operation and integration associated with the production and marketing arrangements of individual crops and livestock. In particular, the literature often assumes that the landowner was indifferent to receiving payment in cash or kind. While, this might indeed have been the case with cereals where spot markets existed, it was not true with crops such as grapes, which required immediate processing, or most fruit and vegetables which had relatively short shelf-lives, demanding a high degree of vertical coordination. Landowners'

²¹ Fruit in south west France was never sharecropped for these reasons. Montgailhard, *Le Métyage*, p.9.

²² Eswaran and Kotwal, 'Contractual Structure', pp.353-4 and Roumasset, 'The Agricultural Firm'.

²³ For plantations in the US South, see Reid, 'Market Response', p.126.

²⁴ Young, *Travels in France*, p.297. See also Bloch, *French Rural History*, p.148 and Epstein, 'Tuscans', pp.118-9.

²⁵ Griffiths and Overton, *Farming to Halves*, for example, pp.3, 110, 121-6.

²⁶ For small holders and the credit market, see especially Postel-Vinay, *La Terre et L'argent*, pp. 48-50.

²⁷ Eswaran and Kotwal, 'Contractual Structure', p.360, note for the Postbellum US South, that 'with the abolition of slavery, the previously used supervision technology of the landlords was no longer feasible and the absence of managerial ability among the emancipated slaves made sharecropping inevitable'.

decisions on contract choice therefore sometimes carried important implications on the extent that they were to be involved in downstream operations associated with processing and marketing farm produce.

Another restriction found in much of the theoretical literature is that the sharecropping contract is usually described as a ‘one-period noncooperative game’,²⁸ even though the empirical literature shows that many contracts, which were nominally only for a year, often lasted for several decades or passed from father to son.²⁹ Long term contracts allowed sharecroppers to become more productive as they accumulated human asset specificity linked to the land, which encouraged them to undertake non-observable investments, especially important as new biological technologies were often needed just to maintain yields.³⁰

Differences in tenant’s time horizons can be shown by two very different life-time earning patterns in the historical literature. In the US South, the contract is usually explained as a rung on a farm ladder that saw the tenant move from labourer, to sharecropper, tenant and finally landowner, as they accumulated capital, skills and reputation over their working life.³¹ By contrast, in a region such as Tuscany, there was no obvious ladder. Instead the sharecropper acquired high levels of human asset specific skills linked to a particular plot of land, which implied that both landowners and tenants stood to lose if the contract was brought to a premature end, leading to stable lifetime incomes for tenants and a guarantee of a skilled labour force for the landowner.

One major restriction to the use of sharecropping with a crop such as viticulture, but rarely mentioned in the literature was the division of the harvest.³² If this took place in the vineyard, the landowner needed to be present to avoid the theft of grapes, and ensure that the different varieties, together with under- and over-ripe fruit, were divided equally between the two parties. For exogenous reasons, vineyards were usually highly fragmented, and the landowner would have considerable difficulties in monitoring a number of geographically dispersed plots throughout the village.³³ The grapes then needed to be transported quickly to the landowner’s cellar to avoid fermentation beginning prematurely in the field. A less time-critical moment for dividing the harvest

²⁸ Ibid., p.365,

²⁹ For example, Garrier, *Paysans*, pp.152-3 and Tourdonnet, *Situation Du Métayage*, pp.37, 72 and 102.

³⁰ Bandiera, ‘Contract Duration’, pp.956-7 stresses the importance of non-observable investments. For biological technologies, see especially Olmstead and Rhode, *Creating Abundance*.

³¹ Wright, *Old South, New South* and Alston and Ferrie, ‘Time on the Ladder’..

³² Allen and Lueck, *Nature of the Farm*, p.116 note for the United States in the late twentieth century, that when ‘output becomes more variable, the opportunities for the farmer to underreport (in effect, steal) the crop increases’, either by misreporting volume or quality.

³³ This was traditionally because many were located on south-facing hillsides, and on marginal land. Inheritance laws also contributed to fragmentation.

was after fermentation, but the possibilities for sharecroppers to cheat were even greater. Wine could be stolen, and the small scale of production implied that there were usually plenty of wine-making facilities in a village for sharecroppers to hide part of their harvest from the landowner. As wine quality varied, sometimes considerably, from vat to vat, and barrel to barrel, good wine could be removed before the division by a dishonest tenant and replaced with poorer wines brought from elsewhere. It was also customary in France for grapes to be pressed several times, with water and sugar added to the latter pressings to make inferior wines. Once again the presence of inferior wines in the cellar made it relatively easy to cheat landowners, both concerning the quantity and quality of the harvest. Unlike the merchants, who could simply reject inferior wines, landowners were obliged to accept them as rental payment from their sharecroppers.

[MAP 1]

Problems such as the division of harvest, risk (and the tenant's desire to multi-crop), or the monitoring of effort on highly fragmented plots, all help explain why sharecropping was comparatively rare, 8.3% of the total area of vines in France in 1892, less than for some other crops. Yet in a number of important French wine regions such as Burgundy, Beaujolais, or Armagnac, as well as Tuscany and Catalonia, it was common (see Map 1). Furthermore the fact that there were different tasks which had many dimensions to perform in the vineyard (Table 1) led to the creation of different contracts that encouraged workers to work quickly, but not at the expense of reducing product quality or damaging fixed assets. These were similar to sharecropping in so far as it was the labourer who organised the work in their own time, but differed because they were paid a fixed salary rather than a share of the harvest. Table 2 shows a number of these, as well as the major sharecropping contracts. A broad distinction can be made between those contracts used to plant and bring vines into cultivation (*complant*), and those used for annual cultivation. Classical sharecropping contracts, where the landowner contributed the land, and the tenant the labour, can also be contrasted with the sophisticated labour contracts (such as *prix-faiteurs*), which resolved specific problems of moral hazard and monitoring for landowners, and allowed vineyard

workers to acquire human asset specificity.³⁴ The rest of this paper looks at contract choice in France's different wine regions.

[TABLE 1]

[TABLE 2]

II

The typical organization structure in the late nineteenth century was a family operated vineyard making its own wine, which was then sold to wholesale merchants who blended it for the hundreds of thousands of small retailers in urban areas.³⁵ However, in a number of select areas in France, a few landowners specialized in fine wines, substituting quality and high prices for volume. The organization of production of fine wines differed to that of *vin ordinaire*.³⁶ Not only was there was a strictly limited area of favourable land (*terroir*) to produce them, but considerable care was required in carrying out the different activities, and in the vineyards there were high levels of human asset specificity. For example, there was a major difference between a task such as trimming leaves in the early summer being technically carried out correctly, to that where the worker had to know exactly how many leaves to remove in a particular year on each vine to guarantee that the grapes received neither too much, nor too little, direct sunlight. This could not be accomplished by 'monitoring' in the traditional sense, but required high levels of decision making by the workers themselves.

Fine wine production also needed large amounts of capital as producers deliberately reduced output to improve quality, while labour inputs were considerably greater, with the harvest, for example being collected three or four times to guarantee only perfectly ripe grapes were used. Winery equipment was also of a better quality (e.g. use of oak barrels) and many of labour-saving technologies such as mechanical crushers found elsewhere were rejected in case they harmed the wine. The wine, instead of being drunk immediately, was matured several years before being marketed. Finally producers had to withstand significant financial losses in years of poor harvests.³⁷

³⁴ This paper excludes those cases such as the *tiers francs* contracts found in Burgundy and Champagne which were used when the owner was physically unable to cultivate the vines themselves. Conseil Economique et Social, *Métayage*, 1.

³⁵ Sempé, *Régime Économique du Vin*, pp.104-6.

³⁶ See especially the highly observant, Busby, *Journal of a Tour*, pp.106-7.

³⁷ Simpson, *Creating Wine*.

Despite the potential advantages of sharecropping to provide the high levels of human asset specificity and care were required, its use was conspicuously absent in Bordeaux and Champagne, and had been abandoned in Burgundy by the mid-nineteenth century. A classic sharecropping contract, which split the harvest in some predetermined way, was unattractive because the high quality grapes needed to be transformed to make fine wines, which involved skills and capital that vineyard workers did not possess.³⁸ In other words, product quality was improved because of the division of labour. There were also problems of moral hazard. Wine quality varied significantly, even from one barrel to another, and sharecroppers would need to trust the landowner handed over equal quantities of good as well as bad wines. For the estate owner (and merchants), the fraudulent use of brand names was a major problem, and these preferred to maintain control of all the wine. As a result, the landowner kept the whole harvest and hired skilled wine-makers, while the labourers were rewarded by high wages in the vineyard. The organisational structure of fine wines was very distinct, so is necessary to look briefly at different regions to understand fully the nature of contract choice.

From the seventeenth century large areas of the Haut Médoc were reclaimed allowing a small number of growers in Bordeaux access to land that produced wines which commanded significantly higher prices than *vin ordinaire*. The estates survived the Revolution and although the vineyards were not excessively large, with Château Lafitte for example being only about 65 hectares, there were considerable economies of specialisation and large quantities of labour employed.³⁹ The leading estates made the wine exclusively from the distinct grape varieties grown on their own vineyards, rather than buy from outside growers,⁴⁰ and the wines were sold under the name of the château and not that of the merchant.⁴¹ In the vineyards, workers (*prix-faiteurs*) were given the responsibility for all the skilled operations on a fixed area of vines, usually slightly less than three hectares, in exchange for accommodation, heating, cheap wine for family consumption, a small garden and a salary (Table 3).⁴² This provided high powered incentives for workers to accumulate the necessary human specific asset skills, organise

³⁸ Landowners hired the best wine-makers and spread production costs over as large a quantity of grapes as possible. Fine wines were blended by the wine-maker rather than the merchants to create the final product, and they required close control of the whole production process in order to guarantee suitable supplies. In poor years, wines sold for considerably less than cost, making a division of the harvest unattractive to growers.

³⁹ Shaw, *Wine, the Vine and the Cellar*, p.263.

⁴⁰ The leading estates refer to those in the 1855 Bordeaux Classification, which has been widely used to this day as an indicator of quality. Markham, *1855* and Simpson, 'Selling to Reluctant Drinkers'.

⁴¹ Prior to 1860 however the shipper's name was also sometimes added as an additional guarantee. Salavert, *Le Commerce des Vins*, p.66.

⁴² Cocks and Féret, *Bordeaux and its Wines*, p.45 and Conseil Economique et Social, *Métayage*, pp.222-25

the work themselves, and left them enough free time to tend their own vines, or earn extra wages doing piece work. They worked closely with the management, and in Château Latour for example, many *prix-faiteurs* worked there for decades, with a son following his father as *vigneron*.⁴³

[TABLE 3]

Unlike Bordeaux, the major champagne *maisons* outsourced for a significant quantity of their grapes. This was originally for historical reasons, as before the nineteenth century boom, and the vineyards were already owned by small growers producing ordinary wines for the Parisian market.⁴⁴ Situated on the northern edge of feasible grape growing, viticulture was especially risky, and production on the heavily fragmented holdings was labour intensive, with high levels of asset specificity.⁴⁵ Wine quality varied considerably, according to both year and location, and the *maisons* had to carry large, expensive stocks, creating important barriers to entry for small producers. Buoyant demand led to high prices for quality grapes however, and attempts by the champagne houses to hold down prices artificially had only limited success.⁴⁶ In suitable areas, small owner-occupiers were therefore encouraged to produce quality grapes, and the *maisons* helped them in their fight against phylloxera and replanting of their vineyards.⁴⁷ Only when grape supplies became restricted because of the creation of a regional appellation and the growers' lack of capital to replant after the First World War, did the large houses begin to integrate backwards by purchasing vineyards which were then worked by wage labour.

Burgundy wines had an early reputation for quality and in the words of Thomas Brennan, Upper Burgundy (Côte-d'Or) in the eighteenth century offers 'the classic example of vineyards so isolated from markets that they were forced to develop superior and expensive wines'.⁴⁸ There were few large holdings, and most of these were broken

⁴³ Higounet, *Château Latour*, p.101. The contract however could not protect vineyard owners completely from adverse movements in wine prices and labour costs, and in the 1930s there were complaints about the work quality of some *prix-faiteurs*. France. *La Gironde*, p.163.

⁴⁴ Champagne production increased from 50 to 240 thousand hectolitres between 1832 and 1914. Loubère, *Wine in France and Italy*, pp.109 and Faith, *Champagne*, p.209. Guy, *Champagne*.

⁴⁵ In the Marne there were 14,430 growers with less than a hectare of vines; 3,202 with between one and five hectares; 89 with between five and twenty, and just 18 with more than 20 hectares. "Le Vigneron Champenois.", 2 juillet 1902. Three hectares is probably the maximum a family could work in this region.

⁴⁶ 'Ridley's Wine and Spirit Trade Circular'.

⁴⁷ Simpson, 'Cooperation and Conflicts' and Guy, *Champagne*.

⁴⁸ Brennan, *Burgundy to Champagne*, p.11. The *pinot noir* grape used in the region's fine wine yielded only about 15 hectolitres the hectare.

up during the Napoleonic period.⁴⁹ Landowners owned a large number of scattered holdings creating potentially high monitoring costs if worked with wage labour. Sharecropping was widespread until the mid nineteenth century, with the landowner being heavily involved in the winemaking and marketing.⁵⁰ Sharecroppers in theory received half the harvest, but in practice the landowner often claimed it all as they had advanced money and goods to the tenant during the year.⁵¹ With the increase in wine prices after 1850, fine wine producers switched from sharecropping contracts to a simple labour contract, the *vigneron a prix d'argent*.⁵² This was similar to Bordeaux's *prix-faiteurs*, and involved employing skilled workers and their wives to cultivate a fixed area of vines for a salary. The labourers also often owned a few vines, but were dependent on wage payments and paternalistic help from landowners to obtain a guaranteed annual income. Contracts were annual, but usually renewed over many years.⁵³ For landowners the advantage of a simple labour contract was that they did not have to split the increasingly valuable wine with their tenants. Nevertheless, high salaries after the Second World War produced a revival in interest in sharecropping, although now the tenant received a cash payment rather than a share of the harvest.⁵⁴

III

The vineyards of Beaujolais and Maconnais were closer to navigable water than those of upper Burgundy, and viticulture from the seventeenth century grew rapidly in response to the Parisian market. The region, in particular Haut (northern) Beaujolais where the hillside was especially steep, benefited from a growing reputation and high prices from the mid nineteenth century.⁵⁵ Sharecropping represented between 30 and 40 per cent of all vines in 1882, but reached 80 per cent in the north.⁵⁶ Beaujolais and Maconnais wines, although not as good as those of Bordeaux or Burgundy, were called *le grand ordinaire de France*, and large land owners using sharecropping obtained prices that were at least double what small, owner-occupiers achieved in the same

⁴⁹ One old estate that had been owned by the Church, the Clos de Vougeot, was broken up and its 50 hectares of vines today are divided among 80 growers.

⁵⁰ Laurent, *Les Vignerons de la 'Côte d'Or'*, 1, pp. 279-80.

⁵¹ *Ibid.* p.278.

⁵² *Ibid.*, p.280. See also Guyot, *Étude Des Vignobles*, p.82 and Caziot, *La Valeur de la Terre*, pp.386-8.

⁵³ Martin and Martenot, *L'histoire des classes*, p.542.

⁵⁴ Conseil Economique et Social, *Métayage.*, vol.2, p.143-5.

⁵⁵ Garrier, *Paysans.*, vol. 1, p.270, notes that planting vines (*el minage*) cost between eight and ten times more than further south.

⁵⁶ The importance of sharecropping was widely recognised by contemporaries. For example, Cochard and Aigueperse, quoted in Myard, *Vigneronnage*, p.213, Tourdonnet, *Situation Du Métayage*, p.179-80, and Conseil Economique et Social, *Métayage.*, vol.2, pp.414-5.

region, with the difference increasing between 1850 and 1940.⁵⁷ In the light of this paper, two questions seem especially pertinent: how did landowners monitor the division of the harvest, and why did they prefer sharecropping to some other form of labour contract such as the *prix-faiteur* found in Bordeaux?

In Beaujolais the typical property had between 12 and 40 hectares of vines, but it was sub-divided and cultivated by between five and fifteen sharecroppers in standard units called *vigneronnage*.⁵⁸ Tenants were given about two hectares of vines, and one and half hectares of pasture for livestock, sufficient to keep a family and domestic servant fully employed. The sharecropper was required to reside on farm, and the family prohibited from working elsewhere, but the milk, butter and cheese provided an important supplement, and helped them survive phylloxera or moments of abnormally low wine prices.⁵⁹ If the sharecropper owned land themselves, they were expected to rent it to others.⁶⁰ Landowners were responsible for all the major production decisions, including the choice of grape varieties and pruning methods used, as well as the timing and methods to be used in replanting after phylloxera (1875-90), the degree of mechanisation, or when to begin the vendange.⁶¹ However the role of the sharecropper was decisive. The hills and the high density of vines made viticulture in Beaujolais especially labour intensive and mechanisation expensive. The sharecropper was responsible not just for working the vines, but also in supervising the harvest and wine making, which could involve as many as twenty people, and he was required to be married, so that his wife would provide food for the workers.⁶² When harvesting was expensive, landowners preferred to give up their share of the remains of the grapes that would be divided (*marc*), rather than to make a cash contribution,⁶³ as was often the case elsewhere with sharecropping in France, where landowners sometimes paid part of the harvesting costs or those associated with farm servants.⁶⁴ Contracts were annual,

⁵⁷ Burel, *Le Vignoble Beaujolais*, pp.71-2. Other suggest a higher figure: *Enquête ...1866*, 27, p.570, gives a figures of between 40 and 85 francs for fine wine; 25 and 40 for ordinary one; and 16 and 25 for poor wines. In Maconnais, the range was 60 and 75; 40 and 60; and 20 and 40 francs respectively (France. *Enquête...1866*, 14, p.329. See also Vermorel and Danguy, *Les Vins*, pp.15-7. The grape variety used was the *gamay*, which produced an inferior wine to Burgundy's *pinot noir*, but yields were considerably greater, at 50 hectolitres / hectare.

⁵⁸ Myard, *Vigneronnage*. Garrier, *Vigne et Vignerons*, p. 137, estimates that large estates which accounted for 60 per cent of the wine area in the region of Brouilly, each had at least six sharecroppers.

⁵⁹ Chatillon, *Le Beaujolais Viticole*, p.67. Even so, contemporaries commented on the poor quality of these dairy products, which were always of secondary importance to wine. Cheysson, *L'habitation*, p.228.

⁶⁰ *Ibid.*, p.221.

⁶¹ Myard, *Vigneronnage*, pp. 208-9 and Goujon, *La Cave et le Grenier*, p.105.

⁶² Myard, *Vigneronnage*, p.193, Burel, *Le Vignoble Beaujolais*, p.118 and Judt, *Socialism in Provence*, p.257.

⁶³ Burel, *Le Vignoble Beaujolais*, p.47.

⁶⁴ Carmona, 'Livestock Specialization', p.253.

but the nature of the terrain led to high levels of human specificity, and many sharecroppers remained for long periods.⁶⁵

Unlike Bordeaux or Burgundy, the harvest was carried out rapidly in only three or four days, and sharecroppers made the wine using their own equipment although, to avoid cheating by the sharecropper, this equipment was always located within the landowner's winery. For example, the Delèche estate near Villefranche-sur-Saône, received grapes from about 28 hectares, and the winery had 12 different wine presses, one for each of its *vignerons*.⁶⁶ Wine-making was managed personally by the land owner or by their agent, and after fermentation the wine from each vat was divided by somebody considered independent, with the owner and sharecropper both present, and the same operation repeated with the 'second' wines.⁶⁷ Only then could the sharecropper take their wine home for storage and maturing.⁶⁸ In France by the turn of the twentieth century this form of organisation was found just in Beaujolais (and Maconnais),⁶⁹ although it was also common in Tuscany.⁷⁰ Although it helped reduce monitoring costs associated with dividing the harvest, it increased production costs. Wine making at Château Malescot in Bordeaux for example cost 437 francs per hectare, against 657 francs on the Deleche estate in the late nineteenth century.⁷¹

The fact that tenants were required to produce the wine in the landowners' cellars helps explain why sharecropping was possible, but does not tell us why the contract was more attractive to landowner than the labour contracts found, for example, in Bordeaux or the Midi, or why sharecroppers did not attempt to become owner-occupiers. The key to understanding these questions lies in the wine quality and market volatility, and can be illustrated by examining briefly the events around the turn of the twentieth century.

One important feature of the contract for landowners was that labour costs were born by the sharecroppers, but when the poor harvests and exceptionally low prices of

⁶⁵ Garrier, *Paysans*, 1, pp.152-3.

⁶⁶ Château de L'Éclair had 16 wine presses. Ferrouillat and Charvet, *Les Celliers*, pp.381 and 389.

⁶⁷ *Ibid.*, p.380 and Myard, *Vigneronnage*, p.193.

⁶⁸ Sharecroppers were not allowed to have wine making equipment in their own cellars. Ferrouillat and Charvet, *Les Celliers*, p.380 and Cheysson, *L'habitation*, p.230.

⁶⁹ See especially Ferrouillat and Charvet, *Les Celliers*. In addition Tourdonnet, *Situation Du Métayage*, 176, Myard, *Vigneronnage*, p.193. For the Maconnais, Goujon, *La Cave*, pp.132 and 198. It was also found on some vineyards in Chateau Neuf du Pape (Vaucluse) after phylloxera in the late nineteenth century. Mesliand, *Paysans Du Vaucluse*, 1 pp 308-314. After 1945, as sharecropping returned to some of Burgundy's vineyards, sharecroppers also made their wine in the landowner's cellar. Conseil Economique et Social, *Métayage*., 2, p.145.

⁷⁰ Galassi, 'Moral Hazard', pp.188-9. By contrast, Biagioli, *Il Modello Del Proprietario Imprenditore*, p.267, suggests that wine-making took place in the landowners cellars because of the tenants lack of capital.

⁷¹ Ferrouillat and Charvet, *Les Celliers*, pp.360 and 388.

the 1900s ruined many sharecroppers, landowners had to offer a new contract (*grands gagés*) which guaranteed a salary instead.⁷² These contracts were similar to the *prix-fait* found in Bordeaux, but for the sharecropper they contained limited incentives for good work, and the low prices discouraged effective monitoring by the landowner. While both landowners and tenants might have preferred sharecropping contracts, fixed wage contracts were an acceptable substitute when market conditions were especially volatile, and tenants required a guaranteed income. They continued to be offered in the interwar period, and advertisements for employment in the *Bulletin de l'Union Beaujolaise* in 1923 gave workers the option of choosing between sharecropping or *grands gagés*.⁷³

Sharecroppers might have preferred to be owner-occupiers themselves, but not only was most of the suitable land in the region already under vines, but there were also disadvantages associated with the family farm when better quality wines were being produced such as in the Haut Beaujolais.⁷⁴ There were economies of scale associated with the selling of better quality wines, and the small growers lacked both the skills to produce consistently good wine, and the capital to establish a cellar and to tie them over after a poor harvest.⁷⁵ One possibility was to move down the quality ladder, which had the advantage of requiring less labour. Humbert Chatillon noted in 1906 that planting a lower density of vines per hectare hung on trellises to facilitate the use of ploughs, helped reduced grape disease, produced higher yields, but of poorer quality.⁷⁶ Indeed, on the plains of the Bas-Beaujolais, which were well suited to mechanisation and producing large quantities of cheap wines, sharecropping was less common and disappeared after 1900. However, the area of vines here also declined, because production costs were high compared to those of the Midi with which it competed. Sharecropping in Beaujolais was therefore linked to the production of better quality wines requiring the presence of a specialist wine maker to supervise operations, and the need for a labour intensive viticulture to provide a supply of suitable grapes. In a classic sharecropping scenario, the contributions of the landowner and tenant complemented each other. As a result, in the Haut Beaujolais sharecropping remained as common in the mid twentieth century, as it had on the eve of phylloxera. A typical village such as

⁷² Vermorel and Danguy, *Les Vins*, p.17 and Myard, *Vigneronnage*., pp.262-3. On occasions landowners also had to provide work animals.

⁷³ Although rare, they were still present during the Second World War. Burel, *Le Vignoble Beaujolais*., p.39.

⁷⁴ There is evidence that sharecroppers were able to save after the First World War, but land concentration continued to increase from the late nineteenth century until 1940. Garrier, *Paysans*., vol.1, p.605.

⁷⁵ Clique, *Les Caves Coopératives*, pp.97 and 141.

⁷⁶ Chatillon, *Le Beaujolais Viticole*, pp.63-4 and 74.

Ste. Etienne la Varenne in 1939 for example, had 140 growers of which 113 were sharecroppers, and these were responsible for 212 of the village's 267 hectares of vines.⁷⁷ Yet the northern Beaujolais was an exception: its wines were superior to most other French wines (although inferior to those of Bordeaux or Burgundy where direct cultivation was practiced). Landowners were highly active in monitoring both the grape and wine making process, as well as in the selling of the wines.⁷⁸ Sharecroppers preferred increasing human asset specificity than moving to other wine-producing regions and becoming owner-occupiers. Despite the advantages, in times of low prices, landowners had to be prepared to guarantee a salary to attract and retain workers.

IV

A number of exogenous events during the period between 1860 and 1914 transformed traditional French viticulture, as the railways helped integrate national markets, and higher wages and urbanisation led to consumption of *vin ordinaire* doubling.⁷⁹ Much of production had been traditionally located close to consumers, but during the nineteenth century southern France (the Midi) saw its share of the national output double from 20 to 40 per cent. The area of vines in the Midi increased from 209 thousand hectares in 1824/8 to 394 thousand in 1862, and 452 thousand by the 1900s.⁸⁰ Being one of the first to suffer from phylloxera had the advantage that replanting took place at a time of wine shortages and rising prices, which attracted large quantities of outside capital.⁸¹ New technologies changed the nature of vineyard supervision and reduced transaction costs, encouraging the creation of large estates and use of wage labour and sometimes sharecropping contracts.⁸² According to one study at the turn of the twentieth century, economies of scale began to be important on vineyards of over 30 hectares, and reached their maximum at between 60 and 80 hectares, with diseconomies appearing on those estates of over 90 or 100 hectares.⁸³ New vineyards were established on the fertile plains rather than the hills, and growers used large quantities of pesticides, fungicides, artificial fertilisers, and irrigation to improve yields. Yields were

⁷⁷ Burel, *Le Vignoble Beaujolais*, p.43.

⁷⁸ According to Goujon, most of them were négociants, although those landowners who lived in Lyon needed a *régisseur* to supervise the cellar. Goujon, *La Cave et Le Grenier*, p.216.

⁷⁹ Simpson, 'Institutional Innovation', pp.527-37.

⁸⁰ Lachiver, *Vignoble Français.*, pp.616-8. The four departments of the Midi are Aude, Gard, Hérault and Pyrénées-Orientales.

⁸¹ Postel-Vinay, 'Debt and Agricultural Performance', p.169.

⁸² Simpson, *Creating Wine*.

⁸³ Cited in Augé-Laribé, *Le Problème Agraire*, pp.119-22. The estates needed to be compact, as the potential economies of scale were quickly lost if the vineyard was fragmented into a number of small plots.

further increased by a light pruning and by the use of significant quantities of artificial fertilisers. These changes, and those found in the winery, led to the term *la viticulture industrielle* being coined by Augé-Laribé, first for the large wine estates in the Midi and later for Algeria.

Sharecropping (*complant*) was used in some cases to replant vineyards destroyed by phylloxera, or to establish new estates on the phylloxera-resistant coastal plain. However one contemporary suggests it was disappearing by 1900,⁸⁴ perhaps because of the appearance of specialised equipment for planting new vineyards reduced labour requirements, or because the flooded wine market had caused prices to collapse, removing any incentives to plant at this time. Steam ploughs prepared the land for planting, producing a considerable saving compared to manual labour. Deeper annual ploughings were considered essential if the new, post-phylloxera vines were to produce high yields, and were impractical on small or fragmented holdings. A distinction developed in some areas between intensive, high-yielding ‘capitalist’ viticulture, against lower yielding, labour intensive ‘peasant’ farming.⁸⁵

Landowners redesigned their vineyards so that vines grew on wire trellises in long straight lines, allowing ploughs and horse-drawn sprays to move between them with ease, thereby cutting labour inputs and reducing monitoring costs associated with wage labour.⁸⁶ As supervisors could easily walk between the rows to check an individual’s work, they achieved greater control over the speed and the quality of operations such as pruning, spraying, cultivation and harvesting.⁸⁷ As Jules Guyot, perhaps the leading expert of the 1860s wrote:

A simple glance along the line of vines, permits the owner to spot the skill or the negligence of his vinedressers, just as the foreman can control with the same ease the quantity and quality of work of each of his workers.⁸⁸

Guyot complained of the expense of local labour, but as phylloxera led to high wine prices, owners of both capital and labour benefited, creating considerable regional prosperity. From the late nineteenth century however wine and land prices slipped, and then collapsed, but wages continued to increase. By 1900 the combination of a heavily depressed wine market and the growing militancy of labourers were creating problems for growers. Following the strikes of 1903/4, which raised wages and cut the working

⁸⁴Vigouroux, *Essai*, p.105.

⁸⁵ For Catalonia, see Carmona and Simpson, ‘Rabassa Morta’, p.307.

⁸⁶ Génieys, *La Crise Viticole*, p.38, Gide, ‘La Crise du Vin’, pp.218-9, and Smith, ‘Work Routine’, pp.364-75.

⁸⁷ The use of secateurs instead of pruning knives reduced the work skills required.

⁸⁸ Guyot, *Culture de la Vigne*, p.19.

day, some looked to sharecropping as a means of reducing costs.⁸⁹ For labourers, sharecropping offered the possibility of increasing their incomes, as the quality of their work and effort would be better rewarded. The experiment by Pierre Causse on his highly mechanised and irrigated vineyard in Gard was widely reported at the time. There were around fifty sharecroppers on the estate and the land was split into plots of three hectares, which was considered the optimal for a husband and wife to work, although extra labour was sometimes needed for the harvest. The owner provided all the inputs, and crucially was responsible for making the wine and controlling the timing of the farm operations, and in exchange received two-thirds of the wine, leaving a third for the *métayer*. As Charles Gide noted, ‘in truth, the sharecropper here is nothing more than the old day labourer carrying out the same tasks’.⁹⁰ Gide calculated that a wage labourer in the region earned approximately 800 francs a year compared to the 1,400 francs that the sharecropper enjoyed, assuming yields of 140 hectolitres of wine per hectare, and a price of 10 francs a hectolitre.⁹¹ Gide talked of ‘a form of production co-operative’, which benefited from the low monitoring costs associated with ‘la petite culture’ and the economies of scale with ‘la grande culture’.⁹² Yet as Henry Gervais pointed out, the problem of using sharecropping as a simple labour contract was that it might guarantee employment, but wages were only paid annually, and income varied significantly. In the years of poor harvests and low prices during the *mévente* of the early 1900s, Pierre Causse was obliged to provide his sharecroppers with a guaranteed salary of between 1,000 and 1,100 francs. As Henry Gervais noted, sharecropping was unlikely to be found extensively in viticulture under these conditions.⁹³

Yet sharecropping did not disappear from the Midi, and in the government survey of 1929 around 5 per cent of Hérault’s vines were officially cultivated using this contract (compared to 0.5 per cent in 1892).⁹⁴ The situation was not so different in the early 1950s, when 4 per cent of the Midi’s vineyards on the plain and 6 per cent on the

⁸⁹ Gervais writes that if the 1892 census shows that sharecropping was unusual in the region, this was not true a decade or two later. Gervais, *La Rémunération du Travail*, p.139.

⁹⁰ Gide, ‘Un Nouveau Système’, p.88.

⁹¹ The calculation assumes 100 winter days employment at 2fr. 50; 100 summer days employment at 3 fr., and 50 days harvest labour at 5 fr. The sharecropper kept the produce of one of three hectares of vines that they worked, but employed some extra labour at harvest time. *Ibid.*, pp.88-9.

⁹² *Ibid.*, p.91. Convert, ‘Le Vigneronnage’, p.578 for the association of capital and labour.

⁹³ Gervais, *La Rémunération.*, p.138.

⁹⁴ Two sorts of contracts are described. The first type of contract had the landowners provide the chemical inputs, and the tenant the labour, with the produce being split between the two. Contracts were for three, six and nine years. The second allowed the *métayer* two thirds of the crop, but the vineyards were in a state of neglect. Contracts could be ended with three months notice by either side. The survey was also pessimistic about the future of the contract, arguing that towards the end of the lease the sharecropper ‘tries to increase profits at the expense of the land’. France. *L’enquête... 1929*, pp.284-94.

slopes were officially worked by sharecroppers. However these figures are distorted by the widespread presence of family owned vineyards, as on vineyards of more than 25 hectares (the largest category used in the survey), sharecropping accounted for seven and 19 per cent of vines respectively.⁹⁵

V

According to Tourdonnet, a leading contemporary expert, French sharecropping in viticulture was limited to those areas producing cheap wines, or where the vine was cultivated in association with other crops.⁹⁶ The 1892 survey confirms this, with sharecropping being found on 35,000 hectares of vines in Gers and Lot et Garonne in south-west France, and a further 20,000 hectares in five adjacent departments, covering a fifth of the region's vines. Together with another 12,000 hectares in the Gironde, these eight departments accounted for more than half the sharecropping area under vines in France (Table 4). In this region, most vines were found on medium sized farms (*métairies*), where a single sharecropper carried out a wide variety of farming activities including cereals, livestock and viticulture.⁹⁷ Indeed, sharecropping was even more common with other crops, accounting for between 20 and 50 per cent of the total area of the department. As most wines were distilled to produce armagnac, they were few problems associated with quality in the division of the harvest.⁹⁸

[TABLE 4]

The area of vines increased from 112 thousand to 199 thousand hectares in Gers and Lot et Garonne between 1826 and 1890, but jumped by a third between 1877 and 1886, as landlords took advantage of the destruction being caused by phylloxera in the Cognac region.⁹⁹ However, changes in the relative importance of the vine within the *métairie* were not straightforward. In the first instance, tenants were usually obliged to pay the landowner different shares of the harvest according to the product. When the costs of monitoring the division of the harvest were very high, such as with milk, vegetable or poultry, then landowners allowed sharecropper either to keep all the

⁹⁵ *Études et Conjoncture*, (1955), p.535.

⁹⁶ Tourdonnet, *Situation Du Métayage.*, p.184.

⁹⁷ Loré, *Le Métayage*, p.22.

⁹⁸ According to Guyot, *Étude des Vignobles.*, 1, pp.373-5, growers received 10 francs per hectolitre when grapes were used for distilling, and 40 francs when they were sold for cheap wine..

⁹⁹ Galet, *Cépages*, 2, p.2331.

production, or pay a fixed annual amount.¹⁰⁰ Wine clearly did not fall into these categories, and attempts by the landowner to increase output implied that sharecroppers might have less labour and time for other activities. Viticulture was especially labour intensive and the appearance of vine diseases such as mildew and black-rot in the 1880s required money to be spent on chemicals, as well as labour for their distribution.¹⁰¹ In addition, the growing specialisation in viticulture threatened to change the relationship between the landowner and *métayer*, as while the sharecropper wished to conserve their independence, viticulture required an active intervention on the part of the landowner.¹⁰² Large scale viticulture implied an increase in the management responsibilities for the owner and important organisational changes such as those found in Beaujolais. Many landowners turned instead to *brassiers*, a type of labour contract similar to the *prix-faiteur*.¹⁰³ However prosperity was temporary, and the area of vines fell by 60 per cent between 1893 and 1913, as phylloxera devastated the region, and prices fell because of the replanting in Cognac.¹⁰⁴ Out-migration and rising labour costs implied that sharecropping never disappeared, although landowners were obliged to increase their contributions of off-farm inputs, or provide compensation if the cereal or wine harvest was poor.

VI

Sharecropping has traditionally been considered as an important impediment to agricultural development during the nineteenth and twentieth centuries in countries such as France and Italy. In recent years this interpretation has been radically challenged by historians and the contract, frequently associated with viticulture, is believed to have dealt efficiently with the problems of monitoring effort and moral hazard in the vineyard in areas as diverse as Tuscany, Beaujolais or Catalonia. Yet despite these apparent advantages, the contract was rare in most of Europe's vineyards. This paper has attempted to explain why, and suggests four factors which are often not given enough attention in the literature.

¹⁰⁰ On this point, but in a different context, see Carmona, 'Livestock Specialization', pp.252-3. In Beaujolais, for example, it was common for sharecropper to pay two pails of milk weekly to landowners. Cheysson, *L'habitation*, p.228.

¹⁰¹ Loré, *Le Métayage*, p. 84-7.

¹⁰² *Ibid.*, p.106.

¹⁰³ *Ibid.*, p.88-89.

¹⁰⁴ Galet, *Cépages*, vol.2, p.2331.

In the first instance, historians and economists have underestimated the difficulties associated with the landlord having to provide a sufficiently large farm to provide exclusive employment for their tenants. If the sharecropper themselves owned some land, then the landlord faced potentially high monitoring costs to guarantee that their tenant did not undersupply effort, as they would keep all the additional production on their own land, rather than just half, as argued by Marshall. A second, but interrelated problem was that of risk, as most family operated farms obtained their income from a variety of sources. Landowners therefore had to provide farms which allowed tenants to produce a mix of crops, and not just wine (as they were able to do in Beaujolais, south-west France or Tuscany), or be willing to assume the risks of crop failure or low prices (Midi). The need to meet these two conditions helps explain the relative absence of sharecropping in most regions of viticulture.

A third factor was that although sharecropping might be efficient in reducing monitoring costs and moral hazard in the vineyard, the division of the harvest created other costs. Landlords had to be present to collect their share, which in itself could cause difficulties if the vineyard was heavily fragmented in different plots. These problems were especially great when wine quality was an important factor, as the possibilities for tenants to cheat increased significantly. They were not insuperable however, as in Beaujolais (and Tuscany) sharecroppers were obliged to make the wine in the owners' cellar. The disadvantage was that it added to costs, and unlikely to be used except when the landowner wished to market the wine themselves. Finally, wine is less homogenous than most products and sharecropping was unattractive when fine wines were produced, given the considerable skills and capital involved in wine-making which the tenant lacked. Even if the sharecropper had received a small percentage of the mature wine, they had neither the marketing skills to obtain a good price, nor the credit to withstand market instability.

In a number of specific cases, sharecropping was undoubtedly an efficient contract in the late nineteenth and early twentieth centuries. However, its absence in much of French viticulture by this date suggests that alternative contracts and production systems were being used to avoid problems of effort and moral hazard. If sharecropping was much more widespread in the eighteenth century as contemporaries believed, then *perhaps* the Physiocrats and Arthur Young were correct to question its efficiency when landowners were unable to supply tenants with sufficient land to

control their effort, or when the crop mix was inappropriate for tenants to reduce risk.¹⁰⁵ By contrast, in the long-run, shifts in consumer demand to farm products where quality was an important factor in determining price, would have also reduced the interest in sharecropping.

¹⁰⁵ Estimates for the eighteenth century appear excessive: Dupré de Saint-Maur and Turgot suggested that sharecropping covered four-sevenths of farm land Adam Smith, five-sixths, and Young, seven-eighths. Laborderie-Boulou, *Le Métyage*, p.51.

APPENDIX.

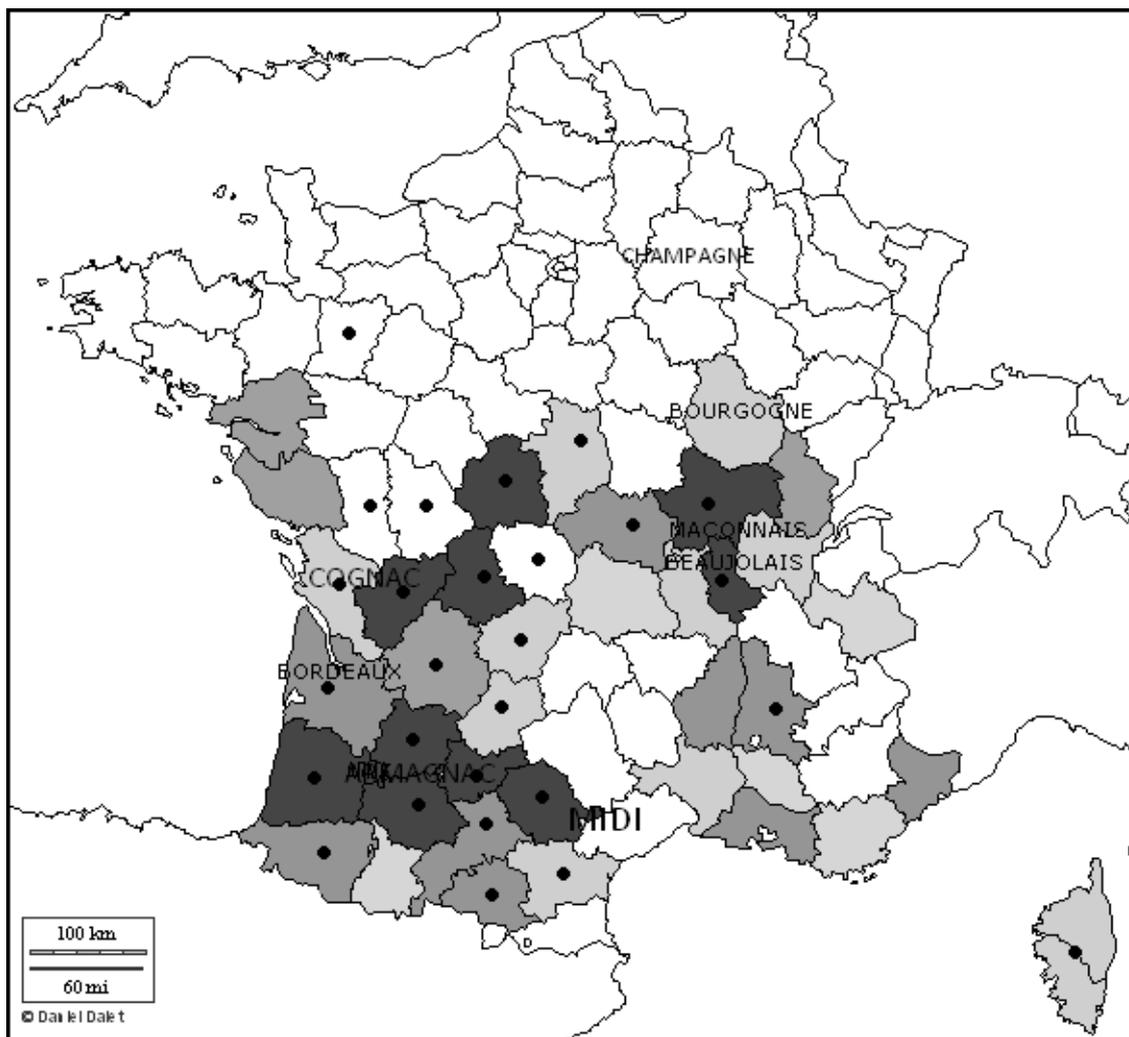
Sharecropping was believed by many to be widespread in France, although government statistics suggest that it was found on only a tenth of cultivated land in the late nineteenth and early twentieth centuries (10.9 per cent in 1892, 10.4 per cent in 1929; and 10.9 per cent in 1946.¹⁰⁶ However in France, as in other countries, there are considerable problems in measuring the real importance of sharecropping, and one recent study has referred to it as the 'hidden' contract.¹⁰⁷ In France, the 1892 census, which was one of the more complete surveys because it linked contracts with different crops, treats all cash payments as rental contracts, even though some of these involved sharecropping. Another problem is that farms and land are classified according to their principal crop, so that plots of vines in zones of polyculture which were sharecropped are excluded in both the major 1892 and 1929 censuses. Sharecropping contracts were often oral, and in the 1892 survey these again were treated as rental contracts.¹⁰⁸ Table 2 shows how different sharecropping and labour contracts are classified in the 1892 *Enquête* (survey).

¹⁰⁶ France. *L'enquête... 1892*, France, *L'enquête... 1929*, and France. INSEE, *Exploitations agricoles*. By contrast, Tourdonnet, *Situation du Métyage*, in 1879 gives a third of tenancies as being sharecropped, against two third of the farms were let for cash rents, cited in Antoine, 'Métyage, Farm Productivity, and the Money Economy', p.75

¹⁰⁷ For England, see Griffiths and Overton, *Farming to Halves*; southern Italy, Cohen and Galassi, 'Sharecropping and Productivity', and for the US South, Alston and Kauffman, 'Agricultural Chutes and Ladders', p.464.

¹⁰⁸ Judt, *Socialism in Provence*.

MAP 1: Vines in sharecropping in France in 1892.



- > 17,4% vines in sharecropping
- 8,3-17,4%
- < 8,3 % (French average for vines)
- land in sharecropping (all crops) > 10,9 % (French average)

Sources: Appendix 1.

Table 1**Skills, monitoring requirements, and asset specificity in viticulture and wine-making, circa 1890.**

common wines (traditional, pre-phyloxera vineyards)			
	skills	monitoring	specificity
land preparation	none	easy	none
planting vines	high	difficult	little
pruning	high	difficult	little
annual tillage	average	average	little
harvesting	low	easy	none
wine-making	average	difficult	little
common wines (Midi & Algeria estates; post phylloxera)			
	skills	monitoring	specificity
land preparation	none	easy	none
planting vines	high	average	none
pruning	average	average	little
annual tillage	average	easy	none
harvesting	none	easy	none
wine-making	high	difficult	little
premium or fine wines			
	skills	monitoring	specificity
land preparation	none	easy	none
planting vines	high	difficult	high
pruning	high	difficult	high
annual tillage	high	average	little
harvesting	high	difficult	none
wine-making	high	difficult	high

Table 2**Examples of major sharecropping and labour contracts found in French viticulture**

Contract name	Description	Regional location	Objectives	How the contract appear in <i>Enquêtes</i>
Complant	Sharecropper creates a new vineyard on uncultivated land in a given time. Owner provides land, inputs and supervision. Indemnisation often provided if tenant does not continue to cultivate the mature vines.	Various regions, especially Loire.	Establish new vineyards	métayage (sharecropping) or fermage (fixed rent tenancy)
Vigneronnage à prix d'argent	Part time, fixed labour contract to cultivate 2 hectares using family labour (with 4 annual payments). Annual but renewable, and inherited.	Burgundy (fine wines)	Supply of skilled labour and allows the owner to keep all the harvest, which is matured in his / her cellar.	journalier or fermage (oral contract)
Prix-faiteurs	Worker carries out a set of fixed task on a given area of land.	Bordeaux (fine wines)	Supply of skilled labour. Worker usually also enjoys other sources of income (often has small vineyard)	journalier or fermage (oral contract)
Grands gagés	Similar to prix faiteur	Beaujolais 1900-1930	Supply of skilled labour	journalier
Brassiers	Similar to prix faiteur	Armagnac	Supply of skilled labour	journalier
Vigneronnage (métayage)	Sharecropper (2 hec. of vines & 2 hec. of pasture). Required to reside on farm, and prohibited from working in other activities. Sharecropper receives half of the wine produced by the owner.	Beaujolais, Maconnais, and Chalonnais	Supply of skilled labour. Supervision and feeding of seasonal and, occasionally permanent workers. Wine made on the owner's premises. Wine quality above average.	metayage
Vigneronnage (colonat partiaire)	Similar to vigneronnage (métayage), but without the obligation of residing on the vineyard. Landowner provides inputs. Usually very small plots.	widespread	Supply of skilled labour.	metayage or fermage (oral contract)
Ramonetage	Foreman. Responsible for work animals and feeding labourers.	Midi	Foreman	journalier
Régie	Fixed salary and commissions. Supervises labourers and métayer (when owner absent). A technician, found on large estates.	Midi, Burgundy, Beaujolais	Foreman / manager	owner cultivation with Régie (manager and not landowner)
Métayage multiple cropping	Sharecropper (20-60 hectares of land, some vineyards). Required to reside on farm, and prohibited from working in other activities. Sharecropper receives half of the wine produced by the owner.	regions with viticulture	Supply of labour. Wine made on the owner's/sharecropper premises. Wine quality below average. Supervision and feeding of seasonal workers.	metayage
Tiers franc	Neighbour cultivates vines in exchange for 2/3 of harvest	Burgundy and Champagne	Usually only when the landowner was ill, a widow, or too young	metayage

Table 3**Contract choice and different regions, circa 1890**

	Vin ordinaire.	Premium wines			
		Bordeaux	Champagne	Burgundy	Beaujolais
Land preparation	o.o.	wage	o.o.	vig	s/c
Planting	o.o.	p.f.	o.o.	vig	s/c
Cultivation	o.o.	p.f.	o.o.	vig	s/c
Pruning	o.o.	p.f.	o.o.	vig	s/c
Harvesting	o.o.	p.f. & wage	o.o.	vig	s/c
Crushing grapes	o.o.	owner	o.o.	owner	s/c - owner
Wine-making	o.o.	owner	maison	owner	s/c - owner
Marketing	merchant.	merchant	maison	owner	owner

o.o. = owner occupier;

wage = wage earner

p.f. = prix-fauteurs

maison = Champagne house

vig. = vigneron a prix d'argent

s/c = sharecropper

TABLE 4 . VINES IN SHARECROPPING IN FRANCE in 1892.

Departement	region	Vines in sharecropping in 000' has	sharecropping (in %)		
			% sharecroppers	% vines in sharecropping	% land in sharecropping (all crops)
Gers	Armagnac (South West)	23,3	9,7	22,7	27,0
Gironde	South West	12,2	11,8	8,8	16,9
Lot et Garonne	Armagnac (South West)	11,9	17,6	21,1	29,2
Saône-et-Loire	Maconnais/chalonnais (Burgundy)	7	12,9	27,9	15,2
Aude	Midi	6,6	6,8	5,6	17,0
Rhone	Beaujolais (Burgundy)	6	11,7	18,7	11,5
Landes	South West	5,6	39,5	27,1	50,9
Garonne, Haute	South West	4,3	12,0	8,5	21,5
Tarn-et-Garonne	South West	4,3	11,1	17,7	19,5
Puy-de-Dôme	Auvergne	3,6	5,1	8,1	10,4
Charente	Cognac	3,5	14,8	20,2	32,7
Indre	Loire	3,5	9,8	23,5	29,1
Tarn	South west	3,4	20,4	23,0	28,8
Loire-Inférieur	Loire (included Nantais)	3,3	12,9	10,8	10,1
Dordogne	South West	3	17,8	13,8	33,1
TOTAL 15 DEPARTEMENTS		101,5	14,3	17,2	23,5
Herault	Midi	0.9	1.6	1.4	8.1
TOTAL FRANCE		149	6,2	8,3	10,9

Source: France. *L'enquête 1892*

Note: In 1892 figures give 83.7 % of vines as being worked by landowners, 8.0 % of vines leased (*fermage*) and 8.3 % found in sharecropping.

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