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RESEARCH IN ECONOMICS AND RURAL SOCIOLOGY

FALL IN INCOMES AND DOWNTURN IN PRODUCTIVITY IN FRENCH AGRICULTURE SINCE 1998

The first years that followed the implementation of the CAP reform of 1992 showed a favourable trend in farming incomes per capita (graph 1) in real terms. Towards 1998, they were followed by a trend reversal coupled with an erosion of incomes. These tendencies were not similar in all the types of farming and, for instance, a better maintenance of incomes was observed in the bovine-meat orientation than in the large-scale field cropping orientations. What are the determining factors of these trends? Are they due to the decrease in product prices? The increases in factors prices? The system of direct compensation payments? The drops in productivity gains? How did these different elements combine in the formation of incomes and why did they not work the same way in the different orientations? This research aims to provide some answers to these questions by analysing the evolution of the prices of products and factors, subsidies and productivity gains between 1990 and 2004, using the accounts per farming orientation prepared by the SCEES (French Central Service of Statistical Inquiries and Studies of the Ministry for Agriculture and Fisheries).

Formation and distribution of productivity gains between 1990 and 2004 for professional farms

A slow increase in productivity over the period as a whole

The formation of productivity gains

Between 1991 and 2003, the volume of farm production only increased at an annual rhythm of 0.5% in agriculture as a whole in mainland France. French agriculture had probably never experienced such a low growth rate since the Second World War. In a previous study (Butault 1999), this growth rate was estimated at 1.9% per year between 1974 and 1991. This trend is probably due to the CAP reform of 1992, which lowered farm-gate prices and extended supply control measures, which had only existed in the dairy and sugar sectors, to large-scale cropping (set-aside land) and to the bovine meat sector (upper limit of the volume of premiums).

Professional farm production increases at a slightly higher rhythm (0.53%: see table 1). On the other hand, there is no clear break in the intensification of production: The partial productivity of intermediate consumption rises but at a moderate rate (0.13% per year), with the partial productivity of the capital increasing a little more quickly (0.37%). On the other hand, labour productivity very clearly improves, at a rate of 3.02% per year. This is to be compared with the very big drop in farm employment, the number of annual work units (AWUs) being 30% down for the whole period, bearing in mind the introduction of early retirement as an accompanying measure of the PAC reform of 1992.

On the whole, there is an annual rise of 1.08% in productivity: two times less than between 1974 and 1991 (Butault 1999), a period of strong production growth. Furthermore, the breakdown of the composition of this surplus (see frame 2 and graph 2) shows that a large part of this production growth is attributable to the drop in farm employment.

Distribution of productivity gains and price trends

Bearing in mind the reforms of 1992 and 1999, the fall in real farming prices over the whole period almost reaches 2% per year for professional farming (see table 1). Thanks to the compensation with direct payments, the basic price only decreases by 1.1% and only by 1% when the other farm subsidies are taken into account.

In the surplus accounts (see graph 2), the surplus rate, that is to say the surplus in relation to average annual production, represents 1.1%, the fall in production prices 1.8% and the increase in direct payments 0.8%. Therefore, the balance shows a slight surplus of 0.1%.

The drop in the prices of intermediate consumption (0.7% per year) corresponds to an appreciable contribution of 0.35% in comparison with the annual value of production. The other expenses, including hired labour which benefits from a slight increase in rates, do not induce any important variations.

In fact, the increase in EI (entrepreneurial income) per non salaried AWU (annual work unit) in real terms (1.8% per year) corresponds, in the surplus accounts, to 0.47% of the

annual value of production, that is to say 40% of productivity gains.

The fall in income after 1998

Around 1998, the trend reversal of the EI per non salaried AWU (see graph 1) is not due to a more unfavourable development of prices in the second period. Before 1998, farm-gate prices fall by 2.5% per year, and only 1.2% after 1998. The compensation system does not evolve less favourably either in the second period: in the surplus accounts (graph 3), the contribution of direct payments seems more limited but, in the same way, compensates for the falling prices.

On the other hand, the formation of productivity gains is very different over the two sub-periods. First, from 1998 on, there is a very sharp drop in the growth rate of production: in fact, it tends to stagnate (see graph 4). This stagnation corresponds to the succession of unfavourable circumstances (such as the BSE - bovine spongiform encephalopathy- crisis or the 2003 drought).

The stagnation of production was not accompanied by a large cut in the use of intermediate consumption and fixed capital. The partial productivity of these two factors tends to stay stable, or even to deteriorate (see graph 4). Furthermore, the decrease in labour slows down. All these trends contribute to slowing down productivity gains: between both periods, the annual growth rates of productivity and surplus go from 1.8% to 0.1% (see table 1).

Therefore, in a context of stagnation, French agriculture has difficulties in keeping its productivity gains. This stagnation of production appears to be linked to current economic phenomena but is also part of deeper tendencies brought by the reform of 1992 and carried on by the reforms of 1999 and 2003. Before, productivity gains were carried by production growth: Now, they are to be achieved by cost savings, in other words, in a less intensive mode of production, which French agriculture has trouble doing.

Lastly, in the second period, there is a very unfavourable trend in the prices of operating expenses, notably with rises in intermediate consumption and fixed capital (see graph 5). Between 1991 and 1998, in the distribution of the surplus share accounts, the drop in the price of these operating expenses represented a contribution half equal to the surplus rate (see graph 3). After 1998, combined with a fall in productivity, the increase in the price of expenses weighs very negatively on the formation of income per non salaried AWU.

Productivity gains and formation of income by type of farming

The formation of productivity gains in the different types of farming

The various types of farming (TF) are unequally concerned by the weakness of productivity gains. From 1991 to 2003, the growth rates for productivity as a whole vary between bovine-meat orientations (42) and horticulture (20) from 0.1 to 2.2% per year (see table 2 for the list of TF and table 3 for data). The variations are even greater for labour productivity

which is 0.6% for quality wines (37) and 4.6% per year for the orientation of mixed crops-livestock (80).

The growth of labour productivity, which was quite high as a whole, is also unequal depending on the types of farming, and the connection between the total and labour productivities is not as strong as could be expected (see graph 6), which means that the other factors play a part in the formation of productivity gains. Fruit and other permanent crops (39) and horticulture (20) orientations show high rates of productivity (2.3 and 2.1% per year respectively) in spite of labour productivities lower than average (2.2% per year). In the first case, there is a strong increase in the partial productivity of intermediate consumption (1.6% per year) and in the second one, a strong improvement in the partial productivity of capital (1.3%).

Cropping orientations (13, 14 and 60) are close to average both for productivity as a whole (around 1% per year) and for labour productivity (3% per year). This is also the case with granivores (50) which registered much bigger productivity gains in past periods (Butault 1999).

Dairy farming (41 and 43) and mixed cropping – livestock combined (80) orientations show high labour productivity (around 4% per year) for a mean productivity (between 0.8 and 1.1% per year). This can be chiefly explained by a moderate progression of the partial productivity of intermediate consumption.

The deterioration of the latter, linked to a low increase in labour productivity, generates low productivity gains (lower than 1% per year) in the rearing and fattening livestock orientations (42 and 44). This may refer to the constraints induced by animal traceability instituted after the crises following mad cow disease.

Lastly, in the vineyard orientations (37 and 38), a weak evolution of labour productivity and a deterioration of the productivity of intermediate consumption also combine to determine low total productivity.

Ultimately, the analysis shows a moderate increase in total productivity gains, with the exception of fruit and horticulture, in spite of a large dispersion of the gains in labour productivity, as a result of unfavourable developments of the productivity of intermediate consumption or capital.

Distribution of productivity gains by type of farming

To address the distribution of productivity gains by type of farming, we use the measurement of productivity via the ratio of input prices and output prices (see insert 2 and graph 7). The output total price index includes the subsidies in relation to the volume of production and the input price index includes the family labour income per non salaried AWU. Since the price of expense others than family labour does not vary much between types of farming (see table 3), the input price index largely reflects the evolution of the family labour income per capita. This evolution is given, by graph 8, in relation with total productivity. Graphs 7 and 8 classify the types of farming into four groups:

- The fruit (39) and horticulture (20) orientations do not diffuse their high productivity gains in the form of a large drop in product prices. Therefore, these gains are “retained” by these sectors in a family labour income improvement.

- In the grazing livestock orientations, productivity gains are all the lower and the trend in output costs is all the more favourable when we switch from the cattle-dairy-farming orientation (41) to the cattle-rearing-and-fattening (42) orientation. In this last orientation, subsidies over-compensate for the decrease in farm-gate prices and it is one of the few sectors for which the total price evolves positively (see table 3). Furthermore, all the grazing livestock orientations enjoy a drop in the prices of intermediate consumptions (animal foodstuff). Therefore, these elements aid an improvement in family labour income which increases from 50 to almost 100% between the TF cattle-rearing and fattening and the cattle-dairy-farming and fattening combined (see graph 8).

- The cropping orientations (13, 14 and 60) have slightly higher than average productivity gains but also a slightly more unfavourable trend in the total price of outputs. In spite of higher compensation for the drop in production prices due to subsidies in the COP orientation (13), the total trend in prices is less unfavourable in the other general field cropping orientation (14). In this orientation, this is not enough to maintain the family labour income which drops slightly over the whole period, bearing in mind the productivity gains which are nonetheless slightly lower than those from the COP orientation (13). However, in the latter type of farming, the increase in income is almost equal to zero (see graph 9). Moreover, these types of farming have the handicap of a small drop in the price of non-family labour expenses, in particular in the price of intermediate consumption.

The tendencies of mixed farming-cattle rearing (80) naturally stand between the orientations of the plant and animal poles.

- The vineyard orientations (37 and 38) are distinguished by an unfavourable trend in the price of expenses, in particular salaries and land-use cost. The relative maintenance of prices is not enough to compensate for the moderate gains in productivity and the farm incomes per capita tend to deteriorate (see graph 9)

The granivores orientation (50) has mean gains of productivity and benefits from a large drop in the price of intermediate consumption (animal foodstuffs). However, these elements do not compensate for a very big fall in the output price (2.5% per year: see table 3), which is shown by deterioration in the family labour income which diminishes almost by half.

To summarise, the types of farming, where incomes are the best preserved, group together the fruit and horticulture orientations on the one hand, and the bovine orientations on the other hand. The former managed to retain their productivity gains and the latter enjoyed an increase in their relative prices. The situation of large-scale farming deteriorated in spite of productivity gains close to average, not compensating for their drop in prices (subsidies

included). Viticulture shows low productivity gains and unfavourable trends in prices. As for granivores, the drop in price is higher than the moderate productivity gains.

Analysis per period

Each type of farming has its own characteristic evolutions (see graph 9). However, for the sake of consistency, both sub-periods have been maintained for professional farming as a whole.

In almost all the orientations, the majority of productivity gains over the whole period were made before 1998 (see graph 10), therefore at a high rate: nearly 4% per year in horticulture (20), 2.5% in fruit (39), around 2% in large-scale cropping (13), 1.3% in cattle dairy-farming, rearing and fattening (41). The orientations of herbivores and animal products (42 and 44) alone show modest gains (around 0.5% per year). With the exception of granivores (50), these productivity gains are not transmitted in the form of a fall in product prices, albeit very high, in spite of subsidies for the orientations submitted to the CAP reform of 1992. In this way, the income of the family labour force increases by around 4% per year in large-scale cropping (13, 14 and 15) and fruit (39), around 7% in the dairy-farming orientations (41, 43 and 80), and nearly 10% in high-quality viticulture (37) and in horticulture (20).

After 1998, the income trend reversal concerns almost all the orientations, the family labour income only increasing in four orientations (42, 43, 44 and 39: see graph 11). This period also corresponds to a trend reversal in the formation of productivity gains. Only the fruit orientation (39) maintained a productivity rate of 1.5% per year, and paradoxically, the bovine-dairy orientation (41) comes in second in this classification (+0.8%). The other orientations have rates lower than 0.5%, like in COP (13), or even negative in other large-scale cropping (14), in granivores (50) or in bovine-meat (42). As a general rule, the mechanism described for agriculture as a whole works for these orientations: the stagnation in production induces a deterioration of the productivity of intermediate consumption while labour decreases less than in the previous period.

Therefore, the unfavourable income tendency is not only due to the price trend in products. In COP (13), for instance, between 1991 and 1998 subsidized prices drop by 1.6% per year and by only 1.2% after 1998. In certain types of farming such as horticulture (20), it is the increase in the expense price (intermediate consumption and hired labour) which combines with a slackening of productivity to create a fall in income, in spite of a relative maintenance of prices.

In the bovine-meat orientation (42), the incomes evolve differently compared with the other orientations. As we have seen, productivity gains stay low for the whole period and even negative at the end of the period. The first years of implementation of the 1992 reform and the introduction of the bonus per capita are stressed by an increase in incomes, then by stagnation between 1995 and 1998. Income tends to increase after that date. In spite of the different crises the sector went through, linked to mad cow disease, the fall in farm-gate prices is moderate between 1998 and 2003 (0.4% per year) and is largely compensated for by the various aids,

bearing in mind in particular the “Agenda 2000” revaluation of premiums: during these years, the total price increases by 1.7% per year, which explains the increase in incomes.

From 1995 onwards, in the dairy field (41), the drop in prices absorbs almost all the productivity gains, which are moderate but recurrent, and after that the farm incomes per capita stagnate.

Conclusion

From 1990 to 1998, in most farming businesses, high productivity gains allowed farmers to cope with large drops in prices while improving farming income per capita. This evolution may be observed in the orientations concerned by the CAP reform, which enjoys direct payments, but also in categories such as horticulture and fruit production. Only granivores and, to a lesser extent, viticulture do not experience this favourable tendency, the effect of falling prices being greater than the contribution of productivity gains.

After 1998, the income evolution trend suffers a downturn. In fact, from this year on, the slowdown in productivity gains and the constant drop in prices, albeit attenuated,

combined to result in a drop in income per family worker. Following a succession of unfavourable circumstances, production stagnates and in this context, agriculture cannot adopt less “intensive” processes, which results in this deterioration in productivity gains. We are entitled to think that this income erosion trend will go on. New downturns in production and prices, without any possible compensation by direct payments, are to be expected, as a result of the WTO negotiations in the Community financial framework adopted in 2002, confirmed in 2005 and which can be called into question in 2009.

The only favourable sector to a better maintenance of incomes could be a rising of world prices, what should not be excluded in the large-scale field cropping sector, considering the increase in world non-food demand of agricultural products

The continuing decline of farm labour appears to be inexorable, but may not be sufficient to maintain the income per capita. French agriculture is faced with the challenge of having to improve the productivity of factors other than labour (intermediate consumption and capital) but these results show that, over the last decade, it had great difficulty doing so.

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This paper follows a request from the Commission of Accounts of the French National Agriculture on the recent evolution of farm incomes in France. It summarises a speech made on June 26th 2006.

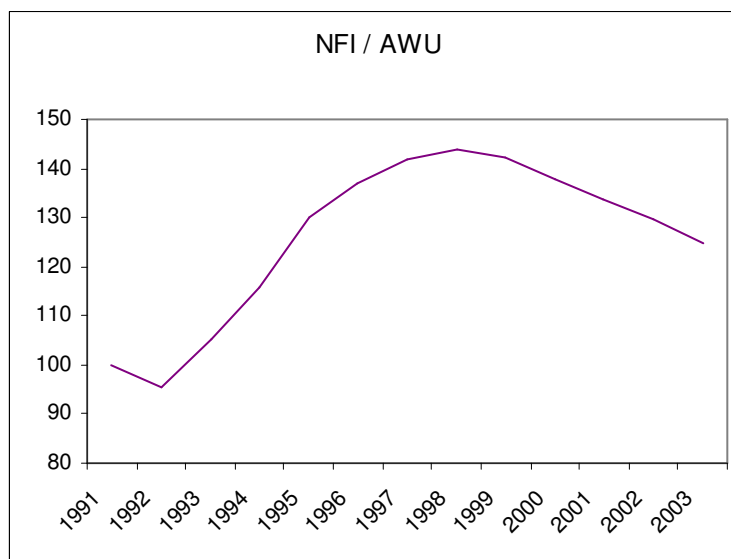
For further information

Butault, J.P.; Delame, N. Rousselle, J.M. (1994). Formation et répartition des gains de productivité dans l’agriculture française. Analyse par produit. Cahiers d’Economie et Sociologie rurales, n° 33, pp.56-70.

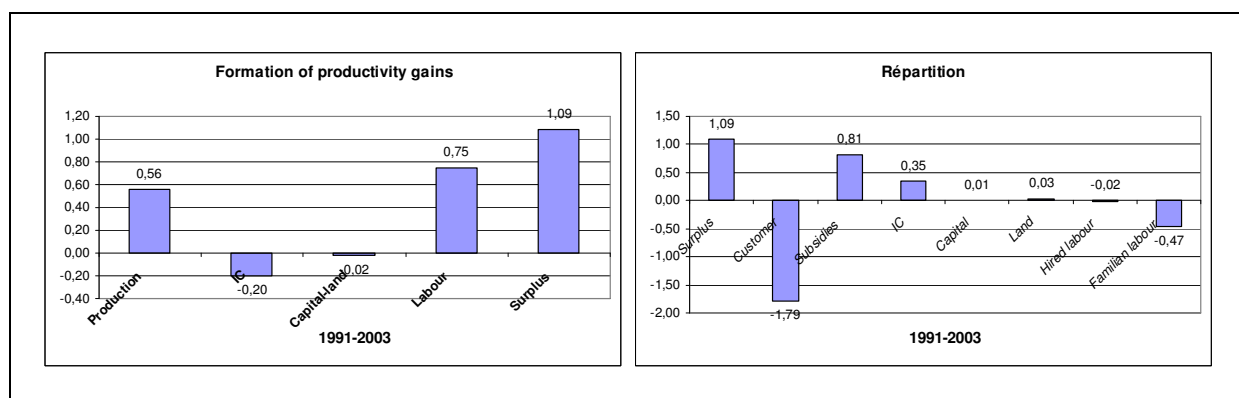
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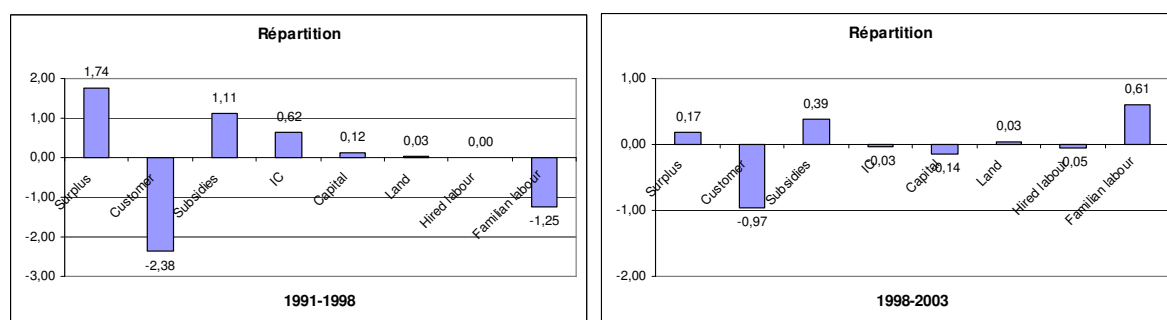
Graph 1: Net farm income (NFI) per non salaried AWUs (annual work units) between 1990-1991-1992 and 2002-2003-2004 in real terms for French professional farming (basis 100: “1991”)



Graph 2: Formation and distribution of productivity gains in French professional farming between “1991” et “2003” (in percentage of annual value of production)



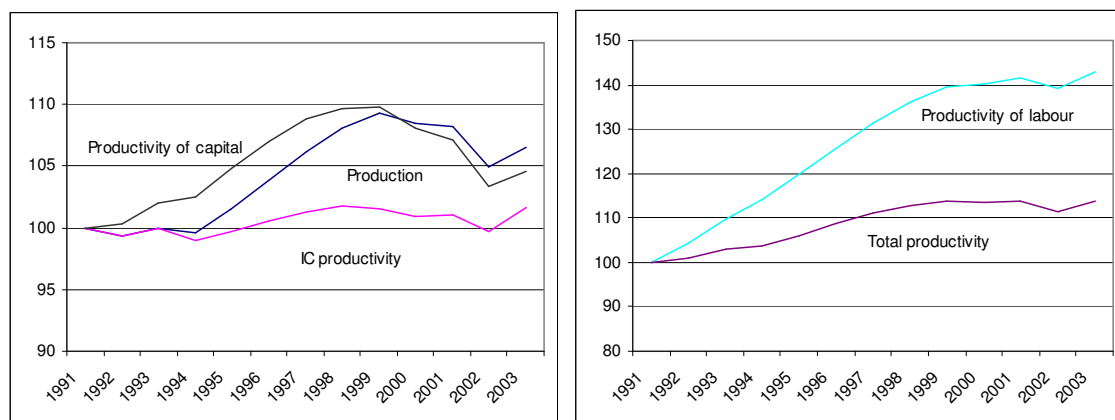
Graph 3: Distribution of the productivity surplus between “1991” and “1998” and between “1998” and “2003” (in percentage of annual value of production)



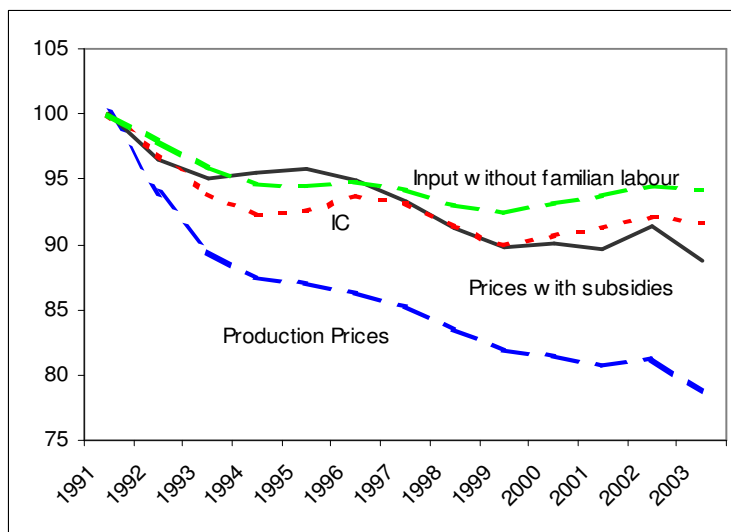
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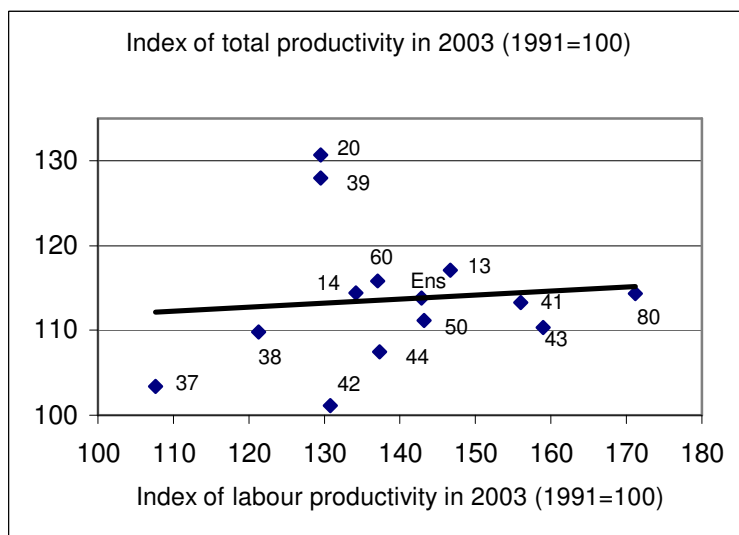
Graph 4: Evolution of production and productivities between “1991” and “2003” in French professional farming (index 100: “1991”)



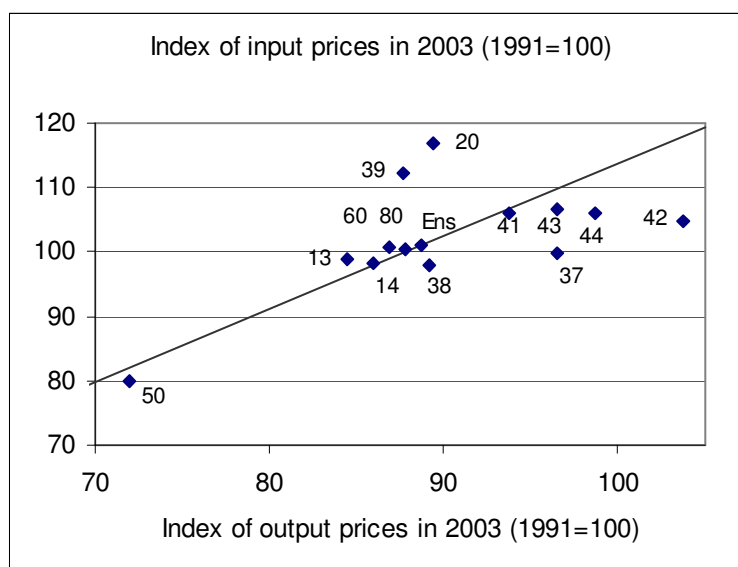
Graph 5: Evolution of real prices between “1991 et 2003” in French professional farming (index 100: “1991”)



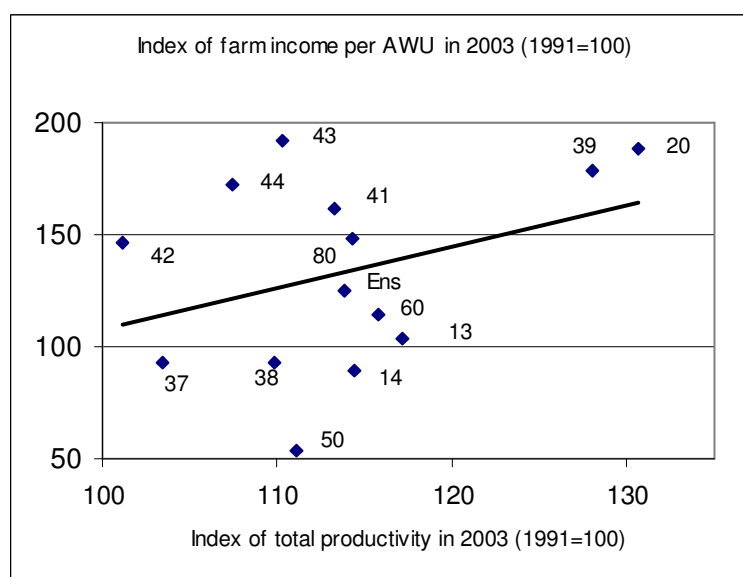
Graph 6: Index of labour productivity and index of total productivity according to types of farming in “2003” (basis 100 en “1991”)



Graph 7: Index of the output price and index of the input price in “2003” according to types of farming (basis 100 en “1991”)



Graph 8: Index of total productivity and index of income per non salaried AWUs in “2003” according to types of farming (basis 100 in “1991”)



Frame 1: Methodology

The study uses the operating accounts by farm categories from 1990 to 2004. These accounts represent an extraction of the national accounts of agriculture in mainland France. This extraction is made by type of farming in the field of professional farming, which is the topic of this study.

Productivity measurement requires aggregation of the volume of different productions and different factors (intermediate consumption, capital, land and labour). To do so, it is necessary to break down the evolution of each item into volume and price.

The volume index of farm production was calculated on data at a basic price. This is equal to the market price which is the farmer's sale price (farm-gate price) plus the subsidies on incomes, minus the specific taxes on products. The index has been applied to the values at farm-gate prices but also to the whole set of subsidies, including the operating subsidies not included in the basic price. In this way, the subsidies are related to the quantities produced, which is questionable for some of them.

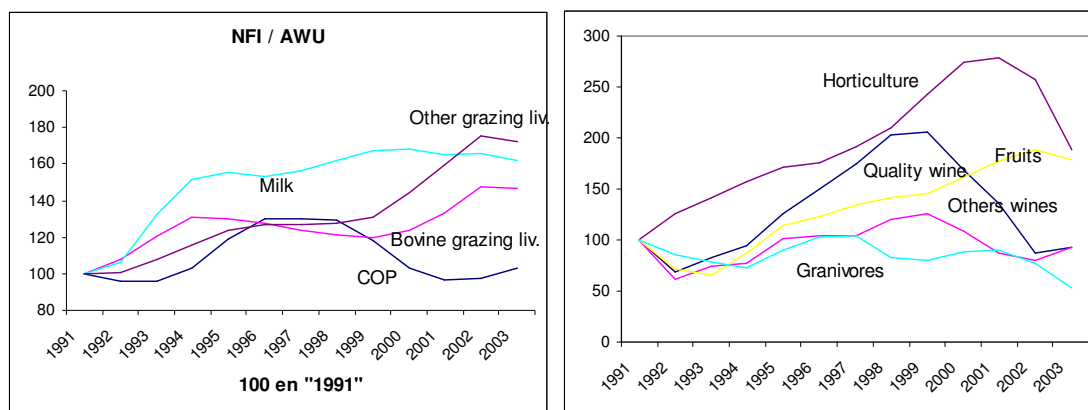
In the accounts, the evolution of intermediate consumption is given in value, volume and price. The capital cost in use corresponds to the value of the fixed capital consumption and the non-land interest. Its volume is given by the fixed capital consumption value. The farm rents, interest and land taxes are considered to be the land-cost in use, the volume of which is given by the Utilised Agricultural Area (UAA).

For hired labour, salaries and social contributions represent the values and the evolution of the number of the salaried annual work units (AWUs) is taken as a volume. As in the accounts, the balance between all the revenues and expenses previously taken into account corresponds to the net farm income (NFI). This indicator is related to the number of non salaried AWUs. In this way, the farm labour price corresponds to the evolution of the NFI per non salaried worker.

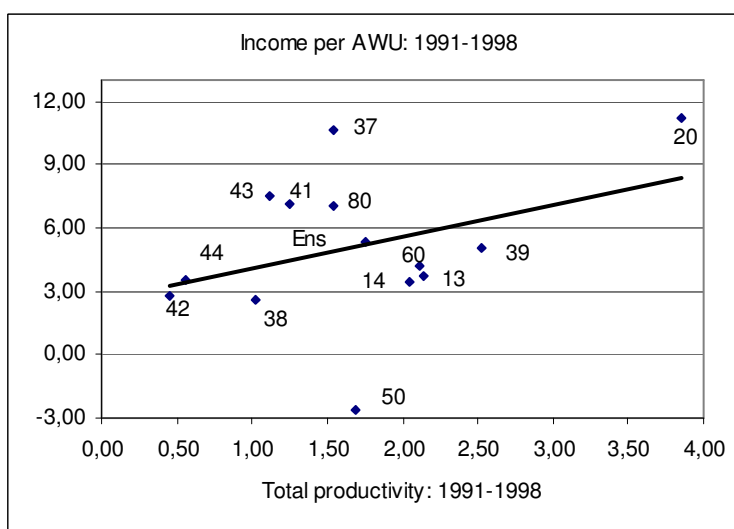
The index of volume and price are of Fischer type to ensure their reversibility and condition of equicharactericity. In the surplus accounts method, they are of Sydgwick type to respect the additivity condition.

The results are given in smoothed averages over three years. All the values are deflated by using the GDP price index.

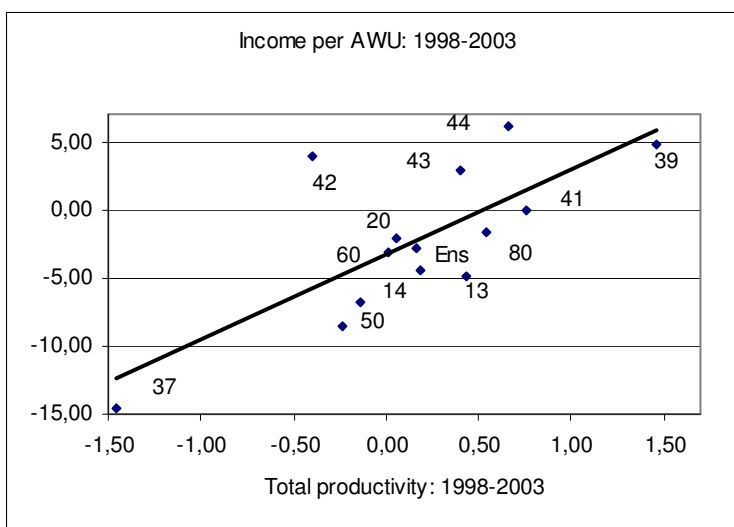
Graph 9: Index of income per non salaried AWUs between “1991” and “2003” in certain orientations



Graph 10: annual variation rates of total productivity and income per non salaried AWUs between “1991” and “1998” according to types of farming.



Graph 11: annual variation rates of total productivity and income per non salaried AWUs between “1998” and “2003” according to types of farming.



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Frame 2: Productivity and input and output prices

The improvement in productivity allows a drop in prices in favour of the consumers and an increase in the returns for production factors. In particular circumstances, this relationship between productivity gains and variations in prices can be highlighted in two ways:

Measurement of productivity by prices

Let us consider a sector where there is one sole output Y (the price of which is p) and one sole input X (the price of which is W) and where the product is without revenue. We have:

$$p*Y = w*X$$

Productivity corresponds to the ratio of volumes between the outputs and inputs (Y/X) but is also equal to the ratio of input output prices (w/p). This property can be kept, for certain indexes, for instance the Fischer index, in a multi-product and multi-factor frame for the aggregated volumes and the total prices of the outputs and inputs. Between “1991” and “2003”, for professional farming, we have the following data:

Index of volume			Index of price		
Outputs	Inputs	Productivity	Outputs	Inputs	Productivity
106,6	93,6	113,8	88,7	101,0	113,8

If we plot the types of farming on a graph (see graph 7) with the price index of the outputs on the abscissa and the price index of the inputs in ordinate between “1991” and “2003”, we can visualize at the same time the productivity gains of the different orientations and the variations of prices of the outputs and inputs. The straight line which connects the origin and the point of professional farming as a whole has, as a gradient, the ratio of output and input prices, that is to say mean productivity: the orientations which are located above this straight line have a total productivity higher than average and the ones located underneath have a lower productivity. This representation allows us to visualize the variation in productivity in each TF in relation to the variations of input and output prices.

The surplus accounts method

The surplus accounts method begins with the differentiation in time of the expression $p*Y = w*X$. From this differentiation, we get:

$$P*dY - w*dX = -dp*Y + dw*X$$

The left-hand part of the expression corresponds to the surplus of productivity, that is to say to the difference in volume between the output and the input measured by the prices, and the right-hand part corresponds to the variation in the output and input prices weighted by the quantities. This relation is also kept in a multi-product and multi-factor framework for certain indexes such as the Sidgwick index.

The surplus accounts method also allows us to see how productivity gains are distributed between the different farming partners. The surplus of productivity is determined by the difference between the volume of production and the volume of factors (that is to say the volume variation weighted by prices). In the left part of graph 2, it is expressed in percentage of the annual value of production: therefore, we can show that this surplus rate, calculated in this way, is equal in approximate value to the productivity rate, that is to say 1.1% per year.

The right part of graph 2 gives the distribution of the surplus: the latter is calculated by the variations of products and factors prices weighted by quantities and is equal, in case of constant return, to the previously calculated surplus. This is how we can put in perspective these variations in price and payment with the rate of productivity.

Table 1: Annual rate of growth of productivity and prices between “1991” and “2003”, according to types of farming.

Period	“91” “03”	“91” “98”	“98” “03”
Volume of production	0,53	1,04	-0,38
Productivity (basic price)			
IC (intermediate consumption)	0,13	0,30	-0,07
Capital	0,37	1,39	-1,02
Land	0,56	1,18	-0,30
Labour	3,02	4,55	0,93
Total	1,08	1,80	0,11
Index of prices			
Production at farm-gate price	-1,97	-2,54	-1,16
Production at basic price	-1,12	-1,43	-0,69
Production with subsidy	-0,99	-1,34	-0,53
IC	-0,72	-1,28	0,06
Capital	-0,10	-0,83	0,93
Land	-0,61	-0,57	-0,67
Salaried labour	0,31	0,05	0,66
Family labour (EI/non salaried AWUs)	1,85	5,36	-2,86
Total expenditures	0,08	0,43	-0,42
Total without family labour	-0,49	-1,02	0,25

Table 2: List of technico-economic orientations

13	COP Cereals, oleaginous, proteaginous
14	Other large field cropping
41	Bovine cattle, dairy farming
42	Bovine cattle, rearing and fattening combined
43	Bovine cattle dairy farming, rearing and fattening combined
44	Sheep, goats and other grathing livestock
80	Mixed cropping livestock combined
20	Horticulture
37	Wine of quality
38	Other vineyard
39	Fruit and other permanent cropping
60	Mixed cropping
50	Granivores

Table 3: Annul rate of productivity and prices between “1991 et 2003” according to orientations (farming businesses)

"1991-2003"	13	14	41	42	43	44	80	20	37	38	39	60	50	Ens	Ens	Ens
	Large cropping		Bovine cattle			Other herbivore	Mixed cropping Livestock combined	Horti-Culture	Permanent cropping			Mixed Crop ping	Grani-vore	« 91 » « 03 »	« 91 » « 98 »	« 98 » « 03 »
	COP	Other	Dairy	Meat	Mixed				Wine Q	Other vine-yard	Fruit					
Volume of production	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0,53	1,04	-0,38
Productivity (basic price)																
IC	0,57	0,26	0,16	-0,78	-0,35	-0,08	0,10	1,58	-0,22	-0,18	1,12	-0,04	0,34	0,13	0,30	-0,07
Capital	0,04	-0,31	0,64	-1,02	0,26	0,38	0,58	0,91	-0,48	0,32	1,32	0,66	-0,13	0,37	1,39	-1,02
Land	0,15	0,36	0,31	-0,85	0,72	0,58	1,08	3,85	0,39	0,23	2,11	1,05	0,15	0,56	1,18	-0,30
Work	3,25	2,48	3,78	2,26	3,94	2,68	4,58	2,18	0,61	1,62	2,18	2,66	3,04	3,02	4,55	0,93
Total	1,33	1,13	1,05	0,09	0,82	0,60	1,12	2,25	0,28	0,78	2,08	1,23	0,88	1,08	1,80	0,11
Index of price																
Production at Production price	-3,93	-2,51	-1,54	-1,74	-1,85	-0,93	-2,41	-0,90	-0,32	-1,02	-0,83	-1,83	-2,95	-1,97	-2,54	-1,16
Production at Basic price	-1,53	-1,30	-0,79	-0,14	-0,59	-0,49	-1,26	-0,89	-0,29	-0,93	-0,78	-1,15	-2,72	-1,12	-1,43	-0,69
Production With subsidies	-1,40	-1,26	-0,54	0,30	-0,29	-0,11	-1,08	-0,93	-0,29	-0,95	-1,09	-1,17	-2,71	-0,99	-1,34	-0,53
IC	-0,38	-0,32	-0,56	-0,75	-1,16	-0,73	-0,92	-0,08	-0,23	-0,13	-0,10	-0,54	-1,66	-0,72	-1,28	0,06
Capital	0,22	1,07	0,00	-0,14	-0,01	-0,28	-0,37	-1,38	-0,15	0,11	0,08	-0,45	-0,93	-0,10	-0,83	0,93
Land	-0,60	-0,54	-0,76	-1,81	-0,60	-1,30	-0,39	-2,27	0,44	0,41	-1,70	-0,27	-1,94	-0,61	-0,57	-0,67
Hired work	-1,23	-0,56	1,46	1,71	1,71	1,71	0,94	0,46	0,62	0,60	-0,22	-0,39	1,66	0,31	0,05	0,66
Family work (NFI / non salaried AWU)	0,26	-0,96	4,08	3,25	5,57	4,63	3,34	5,41	-0,65	-0,59	4,95	1,10	-5,09	1,85	5,36	-2,86
Total expenses.	-0,09	-0,14	0,50	0,40	0,53	0,49	0,03	1,31	-0,01	-0,18	0,97	0,05	-1,85	0,08	0,43	-0,42
Total without family work	-0,33	-0,10	-0,41	-0,71	-0,87	-0,55	-0,73	-0,14	0,02	0,16	-0,17	-0,49	-1,44	-0,49	-1,02	0,25

NS: Non significant