

Cantillon, Mirabeau and Quesnay on the production and trade of wine

*Richard van den Berg*¹, *Albert E. Steenge*²

Kingston University, University of Groningen, UK and Netherlands

(July 2012, Final Version: September 2012)

Abstract

This paper discusses the evolution of the ideas about the consumption and production of wine from Cantillon to Quesnay. Assuming strict limits on quantities of arable land, Cantillon argues that wine production reduces the land available for the production of food and hence limits the size of the working population. He also argues that the export of wine in exchange for foreign manufactures is always detrimental to the country with the more "land intensive" wine production. These misgivings disappear in physiocratic theory due mainly to the assumption that the introduction of capital intensive techniques and specialization will afford great gains in agricultural productivity. These differing views constitute early theories of the optimal use of natural resources.

JEL classification: Cantillon, Physiocracy, International trade

Keywords: B11, B15, B31.

¹Kingston University, Kingston Upon Thames, Surrey, UK.

²Corresponding author: a.e.steenge@rug.nl, University of Groningen, Groningen, The Netherlands.

1 Introduction

Theorists of the predominantly agrarian European economies of the 18th century presented distinct ideas about the (dis)advantages of the cultivation, trade and consumption of wines. An important shift in analysis can be appreciated by comparing the views on wine of two of the most brilliant economic theorists of the period, Richard Cantillon (168?-1734) and Francois Quesnay (1694-1774).

The changing views on wine production of marquis de Mirabeau (1715-1789), who was initially influenced by Cantillon but subsequently by Quesnay, neatly illustrate this shift. Cantillon's focussed on the question of alternative uses of fixed quantities of land. In his views the negative implications of wine cultivation on population size, were not alleviated by the benefits from specialisation and the international trade of wine. Quesnay, on the other hand, assuming a great unused potential in agriculture, rejected Cantillon's misgivings about wine cultivation.

All that counted was the stimulus that came from an increasing net income, the famous *produit net*, on agricultural production, regardless of the composition of the agricultural output. The establishment of free trade, both nationally and internationally would contribute to the expansion of agricultural production and national wealth. The different perspectives of Cantillon and Quesnay echo modern debates about the trade-offs between food production and alternative uses of arable land, e.g. for the growing of crops used for the production of renewable energy.

2 Cantillon

Richard Cantillon's interest in wine as an economic object was more than purely theoretical. Throughout his adventurous career in business he was, besides a banker and financial speculator also a wine merchant. It is known, for instance, that as early as 1714 the Duke of Chandos placed a large order of wine with Cantillon comprising 'six hogsheads of luxury claret, two of burgundy and two of champagne' (Kellaghan 2012: 3-4; also see Murphy 1986: 47)³. Cantillon was successful in most enterprises he turned his hands to and will undoubtedly have been familiar with the economic benefits of the trade in wine to individual merchants. His *Essai* however, which was left unpublished for about two decades after his death in 1734, dealt with the principles of trade 'in general', that is, from the perspective of the national economy as a whole. In this context, he expressed some clear reservations about the benefits of the cultivation of and trade in wine. These reservations ultimately derived from the essentially static assumptions on

³In the 18th century the hogshead was a liquid measure that varied both locally and depending on the kind of commodity. The hogshead of claret corresponded to approximately 209 litres.

which the Irishman's reasoning was based. Not only, as Berdell (2010: 215) has recently expressed it, did Cantillon in effect assume 'technological stasis', he also did not seriously consider the possibility of widespread disuse of land or poor cultivation. Under such limiting assumptions, productive decisions were mostly reduced to considerations of the best allocation of a fixed supply of land between various uses. The possibility of using some land for wine cultivation is considered in the following passage:

As for the use to which the Land should be put, the first necessity is to employ part of it for the Maintenance and Food of those who work upon it and make it productive: the rest depends principally upon the Humour and Fashion of Living of the Prince, the Lords, and the Owner: *if these are fond of drink, vines must be cultivated*; if they are fond of silks, mulberry-tress must be planted and silkworms raised, and moreover part of the Land must be employed to support those needed for these labours; if they delight in horses, pasture is needed, and so on (*Essai* I, ii, 7; Higgs 1931:7; emphasis added).

Thus in addition to the production of the necessary 'reproductive requirements', what is being cultivated in this economy responds to the 'Humour and Fashions' of those who command the surplus income. Wine is here clearly considered as part of the luxury consumption of society by the rich landowning class⁴. The way the rich consumers influence the uses of land is indirect, through market demand and market prices, which provide information to *entrepreneur* farmers about what cultivation is most profitable. Reservations are expressed in *Essai* I, xv where Cantillon discusses the implications of the allocation of land between various uses for the size of the working population. Making allowances for variations in customary living standards of workers in different parts of the world, Cantillon notes that the number of people in a country always adapted quite rapidly to the quantities of foodstuffs produced. Now, if the landowning class spend their incomes on the keeping of horses or wines, instead of keeping servants or (nationally produced) manufactures then farmers will be induced 'to employ the Land for other purposes than the Maintenance of Man' and 'the People will necessarily diminish in number' (*Essai* I, xv, 13; Higgs 73). The production and sale of wine, according to Cantillon involved not only the sacrifice of land to vine yards, but also required that considerable amounts of land be turned to the production of fodder for horses, required for the transport of wine over long distances⁵.

⁴This is true elsewhere in the *Essai* too, although it is also acknowledged, in *Essai* I, xi, 10 that some wine may be part of the normal consumption of the working classes.

⁵The carriage of Wine from Burgundy to Paris often costs more than the Wine itself costs

Thus, in the Irishman's view, the cultivation and bringing to market of wines is relatively "land intensive" and detrimental to the size of the working population. The wine trade is even more detrimental if wine is exported to pay for "labour intensive" luxury manufactures like 'Cloths, Silks, Laces, etc.' In a long discussion of the French export of wine for Brussels lace in chapter i of part III of the *Essai* Cantillon offers calculations to show just how 'burdensome and unprofitable' to France these trades are (Higgs 1931: 231). According to these calculations the French, by exchanging wine for lace, sacrifice the use of no fewer than 16000 acres of land in order to import the produce of one acre of land⁶. While Cantillon does not say it in so many words, here and in other places in the *Essai* the assumption is that ultimately the economic and political strength of a nation depends on the size of its labouring population, which is most profitably employed in the production of manufactures. As such there are some clear traces of *populationnisme* in his thinking.

3 Mirabeau and Quesnay

It were in particular Cantillon's views on population that inspired Victor de Riquetti, marquis de Mirabeau (1715-1789) in the first edition of his famous work *L'ami des hommes* (1756). His views about the French export of wine, for example, clearly echoed Cantillon:

[...] if the Flemings, [or] the Germans get the best wines from Champagne etc, then surely they consume the produce of our land and it is a great loss to the state if they replace this produce with lace or other fine manufactures, the production of which costs many thousands times as much; but if we exchange for the equivalent in wheat, then we will gain a lot, taking into account the difference in price and in necessity between those two merchandises (Mirabeau 1756: 20; our translation).

Since, according to Mirabeau the wine trade also dangerously increased French dependence on foreigners⁷, it was understandable that the government had in the

in Burgundy; and consequently the Land employed for the upkeep of the cart horses and those who look after them is more considerable than the Land which produces the Wine and supports those who have taken part in its production. The more Horses there are in a State the less food will remain for the People' (*Essai* I, xv, 15; Higgs 75).

⁶It may be noted that Cantillon appears not to be very clear and even handed in his inclusion of the various direct and indirect uses of land in either side of his calculation. Interestingly, the version of the same example that occurs in Postlethwayt's *Universal Dictionary of Trade* (Entry 'Ballance of Trade' I, 184) arrives at different totals. In the French version Cantillon also refers to his (lost) Supplement for further details of his calculations. Perhaps these facts suggest that Cantillon was still playing around with these numbers.

⁷The inconvenience of the immense multiplicity of vineyards has been foreseen in France for

past tried to forbid the planting of new vines and ordered the uprooting of existing ones. However this was a flawed approach evinced by the fact that wine production had increased in spite of official policies to discourage it and hence the situation had arisen whereby 'the product of immense provinces is consumed by foreigners in the form of non-necessary goods [i.e., wine], which does not create a dependency on us, at the great detriment of our population and hence of the state' (Mirabeau 1756: 21).

The only 'simple but indispensable means of revival' that would change this deplorable state of affairs was, according to the marquis, to succeed in sowing people, industry and consumption everywhere [then] one will soon see the vines wilt of themselves. Foodstuffs that are suited to the nourishment of man will be demanded and will increase in price, they will meet a prompt and assured sale in the local market; this, instead of any ordinance, will suffice to oblige the peasant to give up the hoe and take up the plough and spade [...] (Mirabeau 1756: 21-22).

In common with the main *populationniste* theme of the work, here the stimulation of population growth and industry is proposed as the approach for a government to support the expansion of production of subsistence good, and limit the use of land for 'luxury' goods such as wine. It must be noted that Mirabeau's advocacy of this policy was a good deal more explicit than Cantillon's.

It is fascinating to see these views about the harmful effects of the wine trade on the national economy disappear from Mirabeau's writings of the late 1750s and 1760s. The principal reason for his change of mind was his famous encounter with Quesnay in July 1757 described by the marquis himself as his 'conversion' (see Meek 1962:16). The opposition between the ideas of Cantillon and Quesnay should not be exaggerated. In fact, the Irish banker probably inspired the physician on some crucial points. For example, Quesnay gave a similar prominent role to the spending patterns of the landowning class in his analysis of the circulation of incomes and he acknowledged the importance of market prices in directing productive decisions⁸. However, perhaps the most important difference with Cantillon was that Quesnay emphasised the great potential for agricultural improvement. He did not see the principal constraint of the economy in terms of

a long time, long experience has shown that when all ocean ports were shut, the people of those parts of the Kingdom [where wine cultivation predominated] died of hunger in the midst of their vineyards' (Mirabeau 1756:20).

⁸For Cantillon's account of circular flow as an inspiration for Quesnay's *Tableau* see Brewer (2001: xix-xxii), and Benítez-Rochel and Robles-Teigeiro (2003); for the importance of prices in physiocratic theory see Vaggi (1987).

limitations to the amount of land available for subsistence goods, but in terms of capital (*richesses*) available for investment in agriculture. The issue of the competing uses of land is not so pressing if the general productivity of agriculture can be significantly improved, through more specialised and larger scale cultivation (*la grande culture*). In order to achieve such improvements and unlock the productive potential of agriculture, the profitability of agriculture needed to be ensured. This would allow and motivate a class of commercial farmers to improve and expand production.

What should be produced was to be left completely up to the farmers, guided by their desire to achieve the highest 'net product' on their land. In the 1760 edition of *L'ami des hommes*, Mirabeau wrote:

With regards to the choice between those different products, one can leave that to the [personal] interest of landowners and farmers. It is the only judge to be consulted. That enlightened interest is sufficient for the cultivator and next to it the whole theory of the universe is ignorance.

What does it matter what one cultivates, as long as it yields the highest net product, evaluated in money? That product affords wine, wheat, clothes, etc. A field that produces a single commodity more profitably produces all those [goods that can be bought with the net product] virtually [*virtuellement*], and in greater quantity, than when it produces them in actual fact [*réellement*] (Mirabeau 1760:142).

In sharp contrast to Mirabeau's earlier advice that economic revival should be achieved through the stimulation of population growth and manufacturing, he now argued that all government needed to do was, first, to guarantee 'the freedom of the cultivation of land and of the commerce of its produce' and second, 'to open up markets, to facilitate transport and routes to trade' (*ibid.*149). Not only would this make agriculture more profitable generally, but a natural proportion between the production of food and other crops such as wine grapes would establish itself as well⁹.

Thus the reservations about the cultivation and trade in wine that Cantillon had expressed were dropped by the physiocrat Mirabeau. To be sure, they were not replaced by a positive analysis of the specific advantages of wine production to a country like France. While advocating the national and international freedom of trade, the physiocrats made very few novel contributions to the theory of the gains from trade (see Bloomfield 1938). Instead, there is a simple recognition in the

⁹Mirabeau (1760: 145) argued that farmers often chose the cultivation of wines over the cultivation of grains because the former, being less perishable and having fewer impediments imposed on their transport, suffered less from '*la tyrannie de la police*'. As soon as equal 'freedom and encouragement' was given to the cultivation and trade of grains, it would 'reassert its natural advantages' (*ibid.* 146).

physiocratic literature that specialisation and more capital-intensive production techniques would raise agricultural productivity. That some of this specialisation would be in the cultivation of wines was accepted as a matter of fact. This well illustrated by the detailed calculations in *Philosophie rurale* (1763) one of the key texts in the physiocratic literature. There it was estimated that the cultivation of wines was responsible for about 10% of 'annual reproduction', giving employment to about 6% of the population in France¹⁰. As in other branches of agriculture, the rate of 'net product' over 'annual advances in wine cultivation was assumed to be 100% (p.133), suggesting that a same level of profitability could be achieved at those relative levels of output. This was all that mattered in terms of the choice of what to produce.

4 Postscriptum

A leading thought in the sections above was the notion that the strength of a nation depends on a limited number of factors, here basically identified as the size and quality of its labour force. Consequently, to support this force it is vital to have continued and guaranteed access to food and food supply. This, however, immediately leads to another question, i.e. which system is best able to 'deliver' on that point. In the dialogue between Cantillon and Quesnay we observe two basic paradigms, with a gradual shift from one to another.

This discussion accompanied the transition from a system of domestic self-reliance to a new system where universal laws of economics will steer the economy to optimal outcomes. In this context, enlightened self-interest should guide the parties concerned on how the land should be cultivated. Nevertheless, can we really trust the market forces to guide us, or is there too little transparency? Over-concern may mean that -in our present-day parlance- existing comparative advantages are not exploited, while placing too much trust in the markets may lead to a substantial risk.

In this sense, the Cantillon-Mirabeau-Quesnay discussion is strikingly modern, clearly reminiscent of our present-day discussions on national interests in an age of globalization. The fear of an insufficient supply of basic resources determines the foreign policies of a great many countries, with overspecialization being one of the overriding concerns. One recent example is the food-versus-fuel discussion as reflected by the often fierce ethanol fuel debate, particularly where the economics of land (and water) usage are concerned.

¹⁰These calculations occur in chapter 7 (esp. pp. 132-140) which is generally believed to have been substantially written by Quesnay. Similar calculations were earlier provided in Mirabeau's *Théorie de l'impôt* (1760).

Above we also have seen that quantitative insight is indispensable, i.e. that some form of modeling becomes essential. Along with this insight, the need arises for appropriate conceptualization of the core issues, such as how to define a supply chain and how to estimate its reliability. Here we recognize the origins of what we now know as lifecycle assessment, with an early role for circular flow analysis.

References

Benítez-Rochel, J.J. and Robles-Teigeiro, L. (2003). 'The foundations of the Tableau Économique in Boisguilbert and Cantillon', *European Journal of the History of Economic Thought*, 10, 2, 231-48.

Berdell, J. (2010). 'An Early Supply-Side-Demand-Side Controversy: Petty, Law, Cantillon', *Journal of Economic Perspectives* 24, 4: 207-17.

Bloomfield, A. I. (1938). 'The Foreign-Trade Doctrines of the Physiocrats', *The American Economic Review*, 28, 4, 716-35.

Brewer, A. (2001). *Introduction to Essay on the Nature of Commerce in General* New Brunswick, N.J.: Transaction Publishers.

[Cantillon, R.] (1755). *Essai sur la nature du commerce en général*. London: Fletcher Gyles [Paris].

Higgs, H. 1891. 'Richard Cantillon', *The Economic Journal*, 1, 2, 262-291.

Kellaghan, T. 2012. 'Claret: the preferred libation of Georgian Ireland's élite', paper presented at DIT Dublin Gastronomy Symposium 2012.

Mirabeau, V. Riquetti. (1756). *L'ami des hommes ou Traité de la population*. Avignon.

Mirabeau, V. Riquetti. (1760). *L'ami des hommes ou Traité de la population*. 5th ed. Hambourg: Hérold, vol. 5.

Mirabeau, V. Riquetti (1763) *Philosophie rurale ou Économie Générale et Politique de l'Agriculture*. Amsterdam: Les Libraires associés.

Salleron, L. 1955. 'Note liminaire', reprinted in Brian, E. and Théré, C. (eds.) 1997. Richard Cantillon. *Essai sur la nature du commerce en général*. Paris: INED, lxxv-lxxiii.

Tsuda, T. (ed.) 1979. *Cantillon. Essai sur la nature du commerce en général*. Tokyo: Hitotsubashi University.

Vaggi, G. 1987. *The Economics of François Quesnay*. Basingstoke: Macmillan.