

Quesnay's Economic Table

An Explication of the Physiocratic Theories

Editorial Preface

ALL too rare and difficult of access are works by the Physiocrats, "those illustrious Frenchmen of the eighteenth century, Quesnay, Turgot, Mirabeau, Condorcet, Dupont and their fellows, who in the night of despotism foresaw the glories of the coming day." Henry George, himself, who paid tribute to the Physiocrats, was "only acquainted with the doctrines of Quesnay and his disciples at second hand." Long overdue is the "first hand" treatment of the subject, which is here presented in the form of an English translation of François Quesnay's original *Tableau Economique* (Economic Table), together with Quesnay's explanation and Dupont's comments. For the work of translating we are indebted to Mr. Karl Loeb. Acknowledgement is also made to Mrs. Gertrude H. Blumstein for her collaboration. The translations are, as a whole, literal, and the explanation of Quesnay is practically reproduced in full, with the exception of an elaborate footnote on silver currency, and a tabulation of the wealth of the class of sterile expenses. So far as we know, this is the first time the *Tableau Economique* has been rendered into English. We feel that Mr. Loeb has contributed a notable service in chronicling the work.

The Table originally appeared in Volume II of a three-volume collection of writings entitled "*Physiocratie*." Dupont de Nemours was the editor of the collection, and his comments are taken from his preface to Volume II. The translations were made from photostatic copies of the original work.

Readers will find the physiocratic writings abstruse and not always easy to follow, but we believe they are worthy of being monumented here, in practically their original form, for such historical value as they may possess. However, since the material is not likely to be of general reader interest, it has been deemed advisable to confine its space by the use of small type. As most of us know, the Physiocrats were among the first to advocate a single tax on net land rent (*impôt unique sur le produit net*). Quesnay's Economic Table does not deal directly with the taxation proposal, but is an explanation of the physiocratic conception of ground rent, which was called *produit net*—net produce. It will be shown that the Physiocrats considered agriculture and related pursuits the only productive occupations that yielded a net produce. In the distribution of the income that part invested in agriculture was a "productive expense," and that part used for manufacturing and commerce was a "sterile expense"—being necessary, but yielding no net produce of its own. It is interesting to note that Henry George, without being familiar with the work of the Physiocrats, made somewhat the same distinction in his reproductive theory of interest. While George recognized that all productive pursuits, commercial as well as extractive, result in rent, he felt that the origin of interest on capital was particularly attributable to the reproductive forces of nature.

It is indeed a matter of regret that the "sterile expense" errors enter into the physiocratic teachings. It was these that no doubt led to an early discrediting of their school of political economy. Unfortunately, the salutary features of the Physiocrats' program tended to suffer along with those that were undeniably fallacious.

A modern examination of Quesnay and the Economic Table will be found in the March-April, 1942, issue of *LAND AND FREEDOM*, in Pavlos Giannelia's article, "Quesnay and the Single Tax."—En.

Explanation of the Table

By FRANÇOIS QUESNAY

[Translated by Karl Loeb]

PRODUCTIVE EXPENSES are for agriculture, meadows, pastures, forests, mines, fisheries, etc., in order to perpetuate wealth in grain, beverages, wood, animals, raw materials for man labor, etc. (See Economic Table as translated and reproduced herewith.)

Sterile Expenses are for goods produced by manual labor—how clothes, interest on money, servants (sic), merchandising, foreign commodities, etc.

The sale of the net produce that the Cultivator grew the preceding year, by means of the *annual advances* of 600 livres (pounds) used in cultivation by the Farmer, furnishes the Proprietor with *annual revenue* of 600 livres.

The *annual advances* of 300 livres toward the sterile expenses: used as funds and for merchandising, for the purchases of raw materials, for manual labor, and for the subsistence and other needs of the Artisan until he has finished and sold his work.

600 livres of income are spent by the Proprietor, half in the class of productive expenses, in bread, wine, meat, etc., and the other half in the class of sterile expense, in clothes, furniture, utensils, etc.

These expenses may swing more or less to one side or the other according as he who makes them yields more to the luxury of subsistence or to the luxury of ostentation. A middle road has been taken here, in which the reproductive expenses bring forth from year to year the same income. But one can easily judge changes that would occur in the annual reproduction of the income, by the way in which sterile expenses or productive expenses would outweigh each other, more or less: one can judge it easily by the very changes which would appear in the order of the Table. For, supposing that the luxury of ostentation rose by one-sixth with the Owner, by one-sixth with the Artisan, and by one-sixth with the Farmer, the reproduction of the income of 600 liv. would be reduced to 500 liv. If, the contrary, the rise of expense were carried to this degree on the side of consumption or of the exportation of provisions of the same, the reproduction of the revenue of 600 liv. would rise to 700 liv. By this it is seen that an excess of the luxury of ostentation can very quickly ruin a rich nation.

The 300 liv. of income that have, in the order of the Table, passed to the productive expenses, return here as annual cash *advances* which reproduce 300 liv. clear. They are part of the reproduction of the income of the Proprietor: And, with the remainder of the distribution of the sums, which fall to this same class, the whole income is reproduced yearly. These 300 liv. which fall at first in the class of productive expenses with the sale of products that the Proprietor buys, are spent by the Farmer, half in consumption of products furnished by this same class, and the other half in the upkeep of clothes, utensils, instruments, etc., which he pays to the class of sterile expenses. And they are re-created with the net produce.

The 300 liv. of income of the Proprietor that have passed to the class of sterile expenses are spent by the Artisan, half in the class of productive expenses in the purchase of products for subsistence

for raw materials for work and for foreign trade; and the other half is split between maintenance and the restoration of the advances to the same class of sterile expenses. This circulation and this reciprocal distribution continue in the same order, by subdivisions, to the last penny of the sums, which shuttle mutually from one class of expenses to the other.

Circulation brings 600 liv. to the class of sterile expenses, of which 300 liv. must be reserved for the annual advances; there remain 300 liv. for the salary. This salary is equal to 300 liv. which this class receives from the class of productive expenses, and the advances are equal to the 300 liv. of the income which goes to the same class of sterile expenses.

The production of the other class is 1200 liv., making deductions for the tax, the tithe, and the interest on the advances of the Laborer,

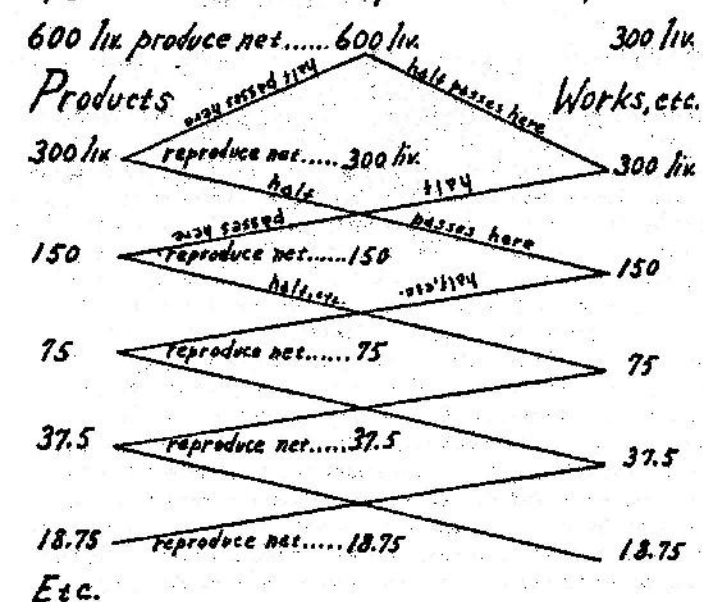
ECONOMIC TABLE

Objects to consider: 1. Three types of expenses; 2. their source; 3. their advances; 4. their distribution; 5. their effects; 6. their reproduction; 7. their relations to one another; 8. their relations to population; 9. to agriculture; 10. to industry; 11. to commerce; 12. to the total wealth of a Nation.

EXPENSES OF THE INCOME

PRODUCTIVE EXPENSES relative to agriculture, etc.	the tax, collected in advance, is divided between productive and sterile expenses.	STERILE EXPENSES relative to industry, etc.
---	--	---

Annual Advances to produce an income of 600 liv. are 600 liv.	Annual Revenue of	Annual Advances for works of the sterile expenses are
---	-------------------	---



TOTAL WEALTH REPRODUCED.... 600 liv. of income; plus the annual expenses of 600 liv. and interests on the original advances of the Laborer, and of 300 liv. that the earth restores. Thus the reproduction is 1500 liv., including the income of 600 liv. which is the basis of the calculation, except the tax collected in advance, and the advances that must be reproduced annually.

which will be considered separately in order not to complicate too much the order of the expenses. Of this expense of 1200 liv., the Proprietor buys 300 liv. of the income. He passes another 300 liv. to the class of sterile expenses, half of which, 150 liv., is consumed for subsistence in this class; the other half, 150 liv., is taken off for foreign trade which relates to the same class. Finally there are 300 liv. which are consumed in the class of productive expenses by the people engaged therein, and 300 liv. used to feed and keep up animals. Thus, of the 1200 liv. of production, this class spends 600 liv., and its advances of 600 liv. are returned in cash through the sales which it makes to the Proprietor and to the class of sterile expenses. One-eighth of the total of this production is applied to foreign trade, partly to exportation and partly to raw materials and food for the laborers of the country who sell their work to other nations. The sales of the Merchant balance the purchases of merchandise, and of gold and silver bullion brought from abroad.

Such is the distributing order of the consumption of the products of the soil among the classes of citizens, and such is the idea that must be formed of the practice and extent of the foreign trade of a flourishing agricultural nation.

The reciprocal sale of one class of expense to the other distributes the income of 600 liv. from one side to the other; which gives 300 liv. to each side, besides the advances which are conserved. The Proprietor subsists on the 600 liv. which he spends. The 300 liv. distributed to each class of expenses, added to the products of the tax, of the tithe, etc., that are annexed to it, can feed one man in the one and in the other: thus 600 liv. of income and its advances can allow three family heads to subsist. On this basis, 600 millions of income can allow to subsist three million families estimated at four persons, of all ages, per family.

To the costs met by the annual advances of the class of productive expenses which are also renewed each year, about half of which is spent for the maintenance of cattle, and the other half of which goes in payment of wages for the men employed in the work of this class, add 300 millions of expenses. This can, with the part of the other products that are added thereto, allow subsistence of another million family heads.

With 900 millions that would renew themselves annually from the landed properties, sixteen million individuals of all ages could subsist, if they conformed to this order of circulation and distribution of the annual income, and if the tax, the tithe and the interest on the annual advances and on the original advances of the Laborer were excluded.

By circulation, one understands here direct purchases paid out of the income which is divided among all classes of people with the exception of commerce, which multiplies sales and purchases without multiplying products, and which is but an increase of the sterile expenses.

The wealth of the class of productive expenses of a nation where the Proprietors of lands have constantly 600 millions of revenue can thus be evaluated.

A revenue of 600 millions for the Proprietors implies in addition 300 millions in taxes; and 150 millions for the tithe of the annual production, total cost included, which is levied on the tithable parts of cultivation; which forms in total 1 billion 50 millions, income included: besides, the reproduction of 1 billion 50 millions in annual advances and 110 millions in interest for these advances at 10 per cent. Everything together is . . . 2,210,000,000.

In a kingdom where there were many vineyards, forests, meadows, etc., there would be but two-thirds of these 2 billion 210 millions, which would be obtained by the labor of the plough. This part

would demand, in a good State of large-scale cultivation employing horses, the use of 333,334 ploughs at 120 acres of land per plough, 333,334 men to manage them, and 40 million acres of land.

This cultivation can, with 5 or 6 billions in advances, be extended in France to more than 60 million acres.

We are not speaking here about small-scale cultivation, executed with oxen, where more than one million ploughs would be needed, and about 2,000,000 men in order to exploit 40 million acres of soil, which would yield but two-fifths of the production that large-scale cultivation produces. This small-scale cultivation, to which the Farmers are reduced (lacking the wealth to establish the original advances) is undertaken at the expense of the same landed properties used in great part for the costs; the excessive annual expenses for the subsistence of the multitude of men occupied with this type of cultivation, require the absorption of nearly the whole produce. This unprofitable cultivation, that results in poverty and the ruin of nations, has no relation whatsoever to the order of the Table, based as it is, on the condition of half of the employment of one plough, where the annual advances can, by means of the fund of the first advances, produce one hundred per cent.

The complete original advances for the furnishing of one plough in large-scale cultivation, and for the first fund of expenses in animals, instruments, seed, food, upkeep, wages, etc. (in the course of two years' work before the first harvest), are estimated at 10,000 liv.; thus the total for 333,334 ploughs is . . . 3,333,340,000.

The interest on these advances ought to bring in at least 10 per cent, because the products of agriculture are exposed to ruinous accidents; every ten years, at least, destroy the value of the crop of one year. Moreover, these advances demand much maintenance and many renewals; thus the total interest on the original advances of the establishment of the Laborers, is . . . 333,322,000.

The meadows, the vineyards, the lakes, the woods, etc., require few original advances on the part of the Farmers. The value of these advances can be reduced, by including the primitive expenses of the plantations and other works executed at the Proprietors' expense, to . . . 1,000,000,000.

But vines and horticulture demand many annual advances which, cited jointly with those of the other parts, can, on an average, be included in the total annual advances shown above.

The total annual reproduction of the net produce in annual advances with their interest, and in interest on original advances (rated in agreement with the order of the table) is . . . 2,543,322,000.

The territory of France, with advances and sales, could produce as much and even much more.

In this amount of 2,543,322,000, there are 525 millions that are half of the reproduction of the annual advances used for the feed of animals. There remains (if the whole tax goes back into circulation, and if it does not affect the advances of the Laborers), 2,018,322,000.

That is, for the expense of the men on an average, there are 504,580,500 for every million family heads, or for one family head 504 liv., which risks reduce to about 530 liv. At this rate a State is rich; and the people live there in comfort.

The soil that produces annually in profit to the people, 2,543,322,000, of which 1,050,000,000 is the net produce, being estimated at the rate of 30 deniers (farthings), is from this point of view a wealth of 33,455,000,000, to which one must add the 4,333,340,000 of original advances; the total is 36,788,340,000, joining to it the 2,210,500,000 of annual produce.

The total, expenses included, of the wealth of the class of productive expenses will be 40,331,660,000.

The value and the product of cattle have not been estimated sepa-

rately because they have been included in the advances to the Farm and in the total of annual products.

We put lands here, because, relative to their market value, one considers them in some way as personal wealth, in that their price is subject to variations in the condition of other wealth necessary for cultivation; for lands deteriorate, and the Proprietors lose on market value of their landed properties in the proportion that the wealth of their Farmers declines.

We are speaking of a rich nation using the advances described that bring her annually—without waste—1 billion 50 millions of produce. But all this wealth maintained in succession by the annual produce can be destroyed, or lose its value, in the degeneration of an agricultural nation through the simple waste of the advances. Inductive expenses can make great inroads in a short time through eight principal causes:

1. Poor form of taxation, which would bear on the advances of the Cultivators. *Noli me tangere*; this is the motto of advances.
2. Overcharge on the duty for the expenses of collection.
3. Excess of the luxury of ostentation.
4. Excess of litigation expenses.
5. Want of foreign trade for products of the landed properties.
6. Want of liberty in interior commerce in the provisions of soil and in cultivation.
7. Personal hardships of the inhabitants of the land.
8. Lack of return of the annual net produce to the class of productive expenses.

Comment on the Table

By DUPONT DE NEMOURS

THE more one penetrates this immense study, comprising that can multiply or destroy wealth, increase or diminish the well-being of mankind, the more one is confronted with problematic cases to be solved by calculation. It is not sufficient to know how to calculate in general, and even to own the Formula of the Economic Table. One must be strongly attentive to the manner of putting or of problem, and of assembling the facts for it. For without the most scrupulous attention to the facts that one applies, and without precise inquiry into all other facts that are, or may inseparably be bound to the former, one will come only to spurious results that could be very dangerous guides in practice. The reason for this is that the Aristotelian Formulas are only means to assist the mind, by registering in measure, a range of consequences too multiplied for the intellect alone to follow their march to the last. These Formulas are excellent instruments to deduct with exactness and ease the results of given conditions; but like the alembic, they return nothing but what one puts into them; and it is an art to discover the facts, to grasp their relations, to assemble them in a regular order to discover the science of political arithmetic. A lofty science whose principles depend only on their own evidence, assures their consequences in the fidelity of the deductions.

In order to offer an example of the procedure that one ought to follow for the solution of economic questions (all the more embarrassing as they are interlaced) . . . for one who wants to know the immutable truths of the most advantageous physical order of mankind united in society, the author of the Economic Table has chosen as his object the price of products; for it is as much by the price of products as by their quantity that one can judge the to

yearly wealth which agriculture produces. The quantity of products does not suffice to constitute the wealth of nations, and from it comes the proverb *the price makes all*. The examination of the effects of the increase of the price of products presents a very complicated question. It may seem that the author has tried to complicate it by the addition of circumstances which make the example of wider usefulness. After having related in detail in the analysis of the Economic Table the hypothesis of a kingdom in the state of prosperity, the author believes that it was not useless to paint into his problem the same kingdom in a state approaching the present condition of several empires of Europe.

A Portrait of Turgot

By PAVLOS GIANNELIA

IN its issue of April 18, the French magazine *L'Illustration* published a reproduction of a portrait of Turgot by Drouais, the painter of Mme. de Pompadour.

The general secretary of the mayoralty of Limoges, M. Daudet, had an old picture cleaned, which was left in the office of the mayor, and had the satisfaction of seeing emerge a beautiful portrait of Turgot, signed and dated, "Drouais, 1767." In the article accompanying the reproduction of the portrait, Robert Engerand wrote: "The painter expressed by his well lighted and skillfully portrayed face, where the art revives the life, all the intelligence, the nobility of soul and richness of heart of Turgot."

Of Turgot, Engerand says: "Before he became the great minister of Louis XVI, Turgot was *intendant* of Limousin. From 1761 to 1774 he exercised so brilliantly these functions that this region, up to that date known as one of the most miserable of provinces, became in these thirteen years, thanks to his activity, a very prosperous region. Besides, this wonderful success attracted the attention of the twenty-year-old monarch, who was anxious to reduce the expenses below the receipts at a time when the opposite formula was *à la mode*. Turgot was an encyclopedist, and won by his dauntless reforms the fury of the court and the thunder of Marie Antoinette. He was also the promoter and creator of municipalities, and about him the king said, 'Only Turgot and I love the people!'"

So writes the author of the article. But to understand the fury of the nobility, we must remember that Turgot persuaded the king to abolish the privilege of tax exemption of the nobility and to substitute a single tax on net land rent. It was thus an easy matter for the protesting noble to object: "Turgot begins by asking today that our properties be taxed; tomorrow he will require of us the *taille* and *corvée* (poll tax and duty service) as from the peasant."

As for Marie Antoinette, it is known that her brother, Emperor Joseph II, warned her not to rejoice at the dismissal of Turgot, which she would have to regret one day!

"Let us give thanks to Limousin," says Engerand in concluding his article, "for having redeemed from oblivion one of the greatest figures of our history. . . . *Que l'esprit domine la matière et que l'ange terrane enfin la bête!* (May the spirit conquer matter and the angel conquer at last the beast!)"

A fine tribute—but why not also pay tribute to the means by which Turgot realized his miracles of thrift—the propositions which, if they had been applied, would have saved the nobility the famous renunciations of August 4 and France from the bloody revolution? Why not mention the magical phrase, *single tax on net land rent*, at a time when only a new Physiocracy can give any hope to a stricken humanity?