

마르크스주의 연구

영어 논문

## Surplus value transfers and productivity

Alejandro Valle Baeza\* · B. Gloria Martínez González\*\*

This paper explains extra surplus value occurring within industries due to productivity differences. This is an issue within Marxian theory of value for which two explanations have been put forward. The one we agree with is Marx's argument, extra surplus value cannot be explained because of surplus value transfers. However, we argue here that Marx's argument is not enough: hence our paper tries to improve Marx's claims on the subject.

Key words: value, surplus value, productivity, exchange, transferences

---

\* Professor and researcher at the Posgraduate Division of the Economics Faculty of the Universidad Nacional Autónoma de México. [valle@unam.mx](mailto:valle@unam.mx)

\*\* Professor and researcher at the Economics Department of the Universidad Autónoma Metropolitana, unidad Iztapalapa. [glor@xanum.uam.mx](mailto:glor@xanum.uam.mx)

## 1. Introduction

First of all, we will formulate the problem. In the second section our argumentation is described. The third section contains the conclusions of the article. At the end, an appendix is included to illustrate and reinforce our arguments.

This paper is part of a larger work where we deal with the problem of surplus value transfers, which can arise in different ways, for example when there is rent, understood as an almost permanent extraordinary profit, such as in the oil industry or in agriculture.

Some authors deny surplus value transfers at all levels. For example, Martínez Marzoa from a philosophical point of view.<sup>1)</sup>

On the contrary, we find three possible levels of surplus value transfers:

- a) Within industries, when there are different producers and diverse productivities.
- b) Between industries caused by:
  - i) The different organic compositions of capital or by the use of non-productibles liable to be monopolized and different quality means of production (“land” rents).
  - ii) Discrepancies between *market prices* and *production prices*.<sup>2)</sup>
- c) International surplus value transfers originated from differences in productivity, organic composition of capital, and others.<sup>3)</sup>

Points b and c are not discussed here. We assume that value at the national sphere is different from that of the international level.

---

1) Martínez(2018: 52~61). Martínez seems to ignore Marx’s arguments on this.

2) See Shaikh(2016: 364~366) and Itoh(1980: 80~92).

3) On this see Cooney(2004).

Instead, here we will deal with point a: Are there surplus value transfers when productivities differences occur within industries? We claim that such transfers do not happen in this case. From our point of view, this is a necessary previous step to clarify points b and c. To analyze this issue, value–prices must be assumed, in other words, prices are proportional to values. Our conclusions will be valid once this assumption is excluded. It can be said that this work refutes the existence of value transfers when there are differences between the *individual values* of the different producers. However, we prefer to not use the term individual value because we consider that it makes the discussion of the subject more difficult. Nevertheless, sometimes its use seems unavoidable.

Marx asserted that there are no surplus value transfers within industries when productivities differ in any industry.<sup>4)</sup> Nevertheless, we maintain that his argument is not enough, so we are reinforcing Marx’s argumentation on the issue.

It must be stressed that understanding value as the socially necessary labour to produce a commodity has several angles.<sup>5)</sup>

- i) The first one we will deal with here is: how should diversity of productivities be considered.
- ii) The second one is that means of production must be accounted for at current costs.

Means of production can be produced with technologies that are not currently used. However actual technology determines the cost of replacing the means of production, thus defining the possibilities of production and

---

4) See Marx(1979: 434~435).

5) We are assuming balance between supply and demand. This issue is quite important: however it should be discussed properly in a different article.

consumption. The explanation of this point would answer why we think the temporalist theory of value is wrong and calls for special consideration.

Such discussion should be the object of a different paper.

iii) A third relevant aspect is that the analysis cannot be done with physical units, namely the Sraffian approach.

We cannot examine here items ii and iii, so we will go on only with the first one.

## **2. Differences in productivity within industries and extra surplus value**

Differences in productivity within industries imply, for many authors, that value is obtained by simply averaging overall labour time expended across units of production.<sup>6)</sup>

Obviously, if prices are value–prices, in other words equivalent (or value) prices, producers with below average individual values are rewarded by the exchange process. On the other hand, producers whose productivities are below average are sanctioned. Mandel, in *Late capitalism*,<sup>7)</sup> explained the extra surplus value of the more efficient than the average producers as a result of the surplus value transfers from the least efficient units. Astarita concludes, following Marx, that extra surplus value does not result from such transfers but from the fact that the labour of the most efficient

---

6) Farjoun et al.(2021: 15). A different approach to average is marginal value. We adopt the view of Reifferscheidt and Cockshott(2014).

7) Mandel(1976: 75~107).

corporations “produces more value per time unit.” It consists of more productive labour through the use of better technology.<sup>8)</sup>

We agree with Astarita in his critical judgment of Mandel and several others who hold the idea of the transfers by the competition within industrial branches. But we disagree with their follow-up of Marx’s approach. We do not think that argumentation is enough. We believe that Marx’s idea should be developed in other terms, as we do here.

It is necessary to point out that Mandel’s approach does not distinguish between national and international spheres. This is a mistake in our view. Astarita also seems not to consider such difference.

### **3. Why are there no surplus value transfers in this case?**

The fact of the matter can be easily understood: if differences in productivity imply surplus value transfers from less productive producers to more efficient ones, an increase in the share of the former producers would increase surplus value on the average. This is absurd, so the issue that value is determined by socially necessary labour must be solved without considering transfers.

It can be shown with a very simple case: let it be considered that corn is produced only with seed and labour and that there are two kinds of land, being the one less fertile than the other. The amount of corn produced per worker is the total product minus the seed divided by the number of workers. That quotient would be the reciprocal of the magnitude of the value of corn.

In the case of capitalist relations, there will be a sole exchange value with

---

8) See Astarita(2013a and 2013b).

which producers who are not equal due to a natural circumstance will be treated as equals. With uniform rate of exploitation, capitalists owning the worst lands will have a surplus value per worker lower than the branch average, and the opposite will happen with those owning the best land. We must emphasize that the product per worker of the lower quality lands is lower, so it cannot be understood in any way that the labourers produce a surplus which will be appropriated by the capitalists who own the more fertile lands. These capitalists get hold of a greater surplus value because their lands are more productive than the average and the product per worker is greater with them, and because market exchange makes a “tabula rasa” of differences in productivity and their causes. In another kind of society, there would be no need to act in such a manner. Validating averagely spent labour will benefit the most productive and will punish the least productive, and that will generally be beneficial for the reproduction of capitalist society. However, as our example shows, when it comes to a productivity difference based on natural causes, it can be either useless or even harmful. The reward for the highest productivity would serve to guide the production towards the cultivation of the most fertile lands and foster the development of more efficient techniques. An extra surplus value is useful only when it comes from technological improvement. When dealing with the role of agricultural or mining production or any other that involves non-producible and liable to be monopolized means of production, differences in productivity can lead to the issue of an extraordinary profit called rent and can result in the emergence of obstacles to accumulate. This problem should be dealt with on another occasion and only after having discussed production prices.

It should be emphasized that the production process that is less efficient than average does not generate more surplus if we examine what would happen if the labour spent by the less productive were validated. In that

case, the reward for the most productive would be even higher and given that the validated labour exceeds the average spent, it would be at the expense of other branches, as we will try to explain when we discuss the transfer of value between branches: production prices and land rent.

Assuming equivalent exchange values, how would there be a transfer of surplus value from the least productive producers to the more efficient ones? The answer is simple and categorical: it is not possible, because recognizing the labour spent by the less productive would be necessary for the existence of surplus to transfer.

An additional emphasis on the proposition that there are no intra-branch transfers is made when we examine the case in which the least productive producers achieve more weight in the branch: thus, the unit value of the product would increase, which could not be understood as more surplus value for accumulation. The most efficient production would be further away from the average, increasing the extra surplus value, but there would be no reason to describe the fact as a “generation of more value.”

This explanation by Marx leads to misunderstandings, even without analyzing modifications in the composition of the production since capitalist accounting of social labour through exchange value addresses all differences in efficiency in the same way. If the value is the average, it cannot be that the most efficient processes “generate more value per unit of time”.

Marx’s fault can be understood if we assess, according to the value, the product per worker in the most efficient processes: it seems that we can see this situation as the generation of more value per unit of direct labour time. However, the greater efficiency of a production process can result from a natural advantage as well as from better technology, or even from a decrease in the value of supplies. In the latter case, it cannot be understood that more value is produced in a process when local technical conditions

have not changed.

Moreover, if production had a greater weight from the most efficient processes, the value would decrease, and extra surplus value would fall.

Counting the socially spent labour according to the average would make it possible to rationally organize production, since those averages report the possibilities of production and consumption to the entire society. This paper analyzes an important issue a step ahead: surplus value transfers between industries. However, there are sides of our view that require more discussion. For example, it is necessary to clarify the distinction pointed out by Rieu about the productivity concept in Marx.<sup>9)</sup>

#### 4. Conclusions

In sum, it is a wrong way to understand sanctions imposed by the capitalist market upon the least efficient producers as a surplus value transfer to the most efficient. Nevertheless, it is also not convenient to explain extra surplus value as the “generation of more value” by the workers in the most efficient processes. Recognizing socially spent labour as the branch average covers a *practical need of capitalism* that facilitates its reproduction by punishing the least productive producers and rewarding the most productive, which stimulates the increase of productivity, thus strengthening capitalism.<sup>10)</sup> In exchange at the same price producers of different productivities ‘each capitalist is forced to produce in an efficient

---

9) Rieu(2022).

10) We are assuming with that *pricing is a practical solution of a real necessity: to measure value*. This is a very opposite view to the Ricardian theory of value, which understood value (not value but incorporated labour) as a *theoretical* explanation of prices. See Valle(1997).



way'.<sup>11)</sup>

Once Marx's conclusion is placed on more solid foundations, more concrete levels of the theory of value can be dealt with. Production prices and income as a systematic deviation from these may be seen as transfers of surplus value. After dealing with transfers within a national economy, possible transfers in the world market will have to be seen.

We hope to have contributed to the understanding of the first level of analysis: what happens within an industry when different productivities are presented.

## Appendix

Consider an economy where corn and oats are produced with seed and labour in years ( $y$ ).

$$0.2u_1 \text{ \& } 1 y \rightarrow 1 u_{1,a}$$

$$0.2u_1 \text{ \& } 0.6 y \rightarrow 1 u_{1,b}$$

$$0.4u_1 \text{ \& } 1.6 y \rightarrow 2 u_1$$

$$0.2u_2 \text{ \& } 1.6 y \rightarrow 1 u_2$$

Where  $u_i$  is the quantity of goods  $i$  in physical units and the second subindex is for different producer of merchandise  $i$ . Notice that  $m_{1,i}$  are the "individual values" of corn in lands with different fertility. Corn value is the weighted average of producers  $a$  and  $b$  "individual values".

The value of oats is  $2 y/u_2$  (2 years of labour per unit of oats), and the value of corn is  $1 y/u_1$ .

---

11) See Weeks(1981: 47).

If we consider that the exchange value is the equivalent price  $1 u_2$  is equivalent to  $2 u_1$  or  $1 u_1$  is equivalent to  $0.5 u_2$ .

The income (profit plus wages) per worker among oat producers would be  $1 u_1/y$ . In corn production, the least efficient production would have an income of  $0.8 u_1/y$ , and the most efficient an income of  $4/3 u_1/y$ . The average income would be  $1 u_1/y$  calculated using the product  $(1.6 u_1)$  of the branch between the total labour of the branch of  $1.6 y$ . This feature of the average is what may feed the wrong assertion of transfers: because what the most efficient producers gain in excess is what the least efficient producers gain less. In the general case, with  $n$  different productivities it obviously happens that the sum of differences between individual values and value is zero.

To calculate the value of the example we use the following system of equations:

Corn production:

$$0.2m_1+1=m_{1,a}$$

$$0.2m_1+0.6=m_{1,b}$$

$$m_1=(m_{1,a}+m_{1,b})/2$$

Oat production:

$$0.2m_2+1.6=m_2$$

Where  $m_1$  y  $m_2$  are the values of corn and oats respectively, and  $m_{1,i}$  are the “individual values” of corn in lands with different fertility. Note that the value of corn is the weighted average by production volumes. This can be easily generalized to  $k_i$  different techniques for each commodity. The results of the prior system are, as we said before:

$$m_{1,a}= 1.2, m_{1,b}=0.8, m_1= 1 \text{ y } m_2=2$$

In each case, the “individual” or social value has the time units of labour, which is assumed as simple labour, per unit of product.

Note that the sum of the differences between the individual values and the value adds up to zero per construction. This can easily lead to the interpretation of the transfers. However, the inconvenience of this interpretation stands out if we assume that the less efficient production of corn doubles, by incorporating the least fertile lands, and the most efficient production remains the same. In this case the values would be:

$$m_{1,a}= 1.217, m_{1,b}=0.817, m_1= 1.083 \text{ y } m_2=2$$

There is no more surplus in this case but more expensive production.

(Received 2022-06-01, Revised 2022-06-30, Accepted 2022-07-05)

## □ References

- Astarita, Rolando. 2013a. "Mandel sobre plusvalía extraordinaria." available at: Rolando Astarita (Blog). Economía. <https://rolandoastarita.blog/2013/09/09/mandel-sobre-la-plusvalia-extraordinaria/>. (Accessed 3/3/2020)
- \_\_\_\_\_. 2013b. "Marx sobre trabajo potenciado." available at Rolando Astarita (Blog). Economía. <https://rolandoastarita.blog/2013/09/21/marx-sobre-trabajo-potenciado/#more-4112>. (Accessed 3/7/2020)
- Cooney, Paul. 2004. "Towards an Empirical Measurement of International Transfers of Value." *The New Value Controversy and the Foundations of Economics*. in Freeman Alan, Andrew Kliman et al.(eds.). pp.241~260. Cheltenham: Edward Elgar.
- Farjoun, Emmanuel, Moshé Machover et al. 2021. *How Labor Powers the Global Economy: A labor theory of capitalism*. Cham: Springer
- Itoh, Makoto, 1980. *Value and Crisis: Essays on Marxian Economics in Japan*. London: Pluto Press.
- Mandel, Ernest. 1976. *Late capitalism*. London: New Left Books. Chap.3.
- Martínez, Felipe. 2018. *La filosofía de 'El capital.'* Madrid: Abada.
- Marx, Karl. 1979. *Capital*. vol.1. London: Penguin Books.
- Reifferscheidt, Michael and Cockshott, Paul. 2014. "Average and Marginal Labour Values are: On Log (n)-A Reply to Hagendorf." *World Review of Political Economy*, Vol.5, No.2, pp.258~275.
- Rieu, Dong-Min. 2022. "On Karl Marx's Distinction between Produktivkraft and Produktivität' available at Research Gate." [https://www.researchgate.net/publication/358662500\\_On\\_Karl\\_Marx%27s\\_Distinction\\_between\\_Produktivkraft\\_and\\_Produktivitat](https://www.researchgate.net/publication/358662500_On_Karl_Marx%27s_Distinction_between_Produktivkraft_and_Produktivitat). (Accessed 4/26/2022)
- Shaikh, Anwar. 2016. *Capitalism Competition, Conflict, Crises*. New York: Oxford University Press.
- Valle, Alejandro. 1997. "Prices for Regulating and Measuring Marxian Labor Values." *Research in Political Economy*. in Zarembka Paul(ed.). 16, pp.215~241.
- Weeks, John. 1981. *Capital and Exploitation*. Princeton: Princeton University Press.

## □ 국문초록

### 잉여가치 이전과 생산성

알레한드로 바예 바에자·B. 글로리아 마르티네스 곤잘레스

이 논문은 생산성 차이로 인해 산업 내에서 발생하는 특별잉여가치를 설명한다. 특별잉여가치는 마르크스 가치론에서 쟁점의 하나인데, 이에 대해서는 두 가지 설명이 제시되어 왔다. 그중 우리가 동의하는 설명은 마르크스의 논의로서, 이에 따르면 특별잉여가치는 잉여가치의 이전으로 설명될 수 없다. 하지만 우리는 이 논문에서 마르크스의 논의가 충분하지 않다고 주장하며, 이 주제에 대한 마르크스의 주장을 개선하고자 한다.

주요 용어: 가치, 잉여가치, 생산성, 교환, 이전