

## **The economic literature on education as the driving force of development (The vicissitudes of human capital)**

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The literature on education shows that investment in human capital is the only way to foster development in the post-industrial economy. We will present our thesis first with a short survey of such literature before the 1960s (section 1); then by analysing the debate during the welfare state (section 2); by treating the crisis which followed it (section 3); finally by giving some prospects for the future.

### **1. Education and human capital before the 1960s**

A historical approach can cast useful light on our issue. The expression “investment in human capital” has two meanings, different but connected. The literal meaning refers to dependent workers in general, especially wage workers; Theodore Schultz’s understanding (see below) refers to investment - or self-investment - to improve workers’ productivity, and especially investment in education and training.

The first organic policy of investment in human capital was implemented by the British sovereigns from the 15th to the 17th century. They required parishes to collect alms for the poor and to build workhouses, in which the able-bodied poor were both assisted and forced to work. The explicit intention behind these initiatives was to organise a policy of import substitution,<sup>1</sup> transforming beggars into human capital.

Of course, this was mainly unskilled labour. But the mercantilists also sought to attract the best foreign artisans with good economic and living conditions,<sup>2</sup> which implies that they also had a clear idea of skilled human capital.

At the end of the 17th century, the need to extend the domestic market led British economists to advocate high wages, because they could increase demand. But some authors - notably Daniel Defoe - were aware of the linkage between increase in consumption and increase in the productivity of human capital. In foreign trade, Defoe stated, we cannot compete with the very low wages of China and India. Since British workers enjoy the highest wages in the world, they are able to produce better goods. Only at this level can we compete with the others.<sup>3</sup>

Of the later economists, Cantillon affirmed that artisans’ remuneration must cover the time and labour spent in apprenticeship.<sup>4</sup> Smith extended this concept to society: the talents acquired by individuals through study and training form a sort of fixed capital for society as a whole.<sup>5</sup>

The economists of the classical school often underlined the importance of education in raising productivity, but the basic principles of classical political economy ignored development founded on human capital. In particular there were two classical postulates that blocked this perspective: the constant tendency of wages to the subsistence level and the division of goods between wage goods (essential final products) and luxury goods.

The classical economists did, however, acknowledge that, in the long run, luxury goods could become common goods. But they conceived this shift as too slow to influence the process of accumulation. For instance, Marx, who foreshadowed many aspects of later capitalist

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<sup>1</sup> See Starkey (1529-32: 34, 115). For the general issue, see Perrotta (2004, ch. 6: 127-36).

<sup>2</sup> See for ex. Fortrey (1663: 219-26).

<sup>3</sup> Defoe (1728: 59-67).

<sup>4</sup> Cantillon [1730, I.VII: 18).

<sup>5</sup> Smith (1776, II.1.17).

development, missed the most important one: the growth of productivity through investment in education and skill.<sup>6</sup>

Another prejudice was the old idea that confined wealth to material goods. This view was held, for different reasons, by the physiocrats and by Smith. Subsequently, it took time and hard thinking to arrive at the recognition that also non-material wealth could be accumulated and that education - i.e. a form of non-material accumulation - was a key way to development.

Dunoyer, J.S. Mill, List, Marshall and many others underlined the importance of education, intellectual progress and customs for accumulation.<sup>7</sup> On the other hand, Eisdell effectively described the difficulty of raising the skill and productivity of common workers. He wrote: "The wealth of a country depends mainly on the skill"; but we cannot have enough skill because the workers are too poor to send their children to study. Thus, there is shortage of skill and excess of common labour.<sup>8</sup>

The trap described by Eisdell afflicted capitalist accumulation for more than a century, up to the advent of the welfare state. The lack of growth in skill held back both increase in production and increase in consumption. Often there were periods of stagnation, in which investments dropped and capitals turned out to be in excess. Excess capitals tended to go towards financial speculation or unproductive rents. Although the period saw a substantial increase in the middle classes (professionals, public administrators, teachers, researchers, engineers, technicians), it was not enough to grant stable growth.

Even Keynes failed to fully appreciate the real issue. He demolished the inadequate analyses of the crisis which, he stated, was not due to excessively high (rigid) wages, but - on the contrary - to excessively low wages and the consequent scarcity of demand. However, the increase in wages he propounded aimed only at increasing demand, but not at steady growth based on skill. It is precisely here that Keynes appears to have been adopting a short-run approach.

## **2. Education and human capital in the welfare state**

The welfare state policy, however, was much more comprehensive than Keynes' prescription, which had nevertheless been its main pillar. The post-war governments finally implemented a policy for the support of both development and the lower classes. For the first time, even the lowest social classes were included in the distribution of wealth. Not only did employment and wages rapidly grow, but a long series of public interventions provided support for the weaker categories: housing, health system, education, infrastructures, social security, support of weak groups or areas, etc. The general level of welfare showed a sharp rise.

According to the traditional prejudices, these expenditures subtracted wealth to profitable investments. In actual fact, the contrary happened. The unprecedented increase in welfare had the result of boosting productivity and led to one of the longest booms in the history of capitalism. Actually, the social spending on the welfare state proved the greatest investment in human capital ever seen.

Only ideology could hide such an obvious fact. All of us know, for instance, that health care increases workers' capacity; education and culture enhance their technical skill and critical aptitude, while comfort and social security improve workers' ability to adapt. All this boils down to an increase in labour productivity.

Furthermore the rise in wages allowed for a great increase in the demand for new goods, such as household appliances, cars, care for the elder members of the family, etc. This caused a radical

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<sup>6</sup> See Perrotta (2018, ch. XI).

<sup>7</sup> Dunoyer (1830, vol. 2, book 5: 1-33). J.S. Mill (1844, III, 7, 10-12, 26-28). List (1841, II.XII.1-7 and 20-21). Marshall (1890, VI, XII.45 and XIII.39-41).

<sup>8</sup> Eisdell (1839, II: 255-64).

change in family life. Women had now much more time and the opportunity to do non-domestic work. This too led to a great increase in social productivity.

According to Piketty, it was only during the prevalence of the welfare state that the returns of rent and shareholding were lower than the growth rate of the economy. Before and after, they had and have been higher. During the welfare state growth in western Europe (1950-70), per-capita GDP even surpassed that of the US, reaching 4%. But in the period 1970-90 it slowed down.<sup>9</sup> From 1950 to 1970 the Historical Human Development Index in western-central Europe grew on average by 10 points (0.35 to 0.45), while from 1970 to 1990 it only grew by 7 points (0.45 to 0.52).<sup>10</sup>

It was precisely in those years that Theodore Schultz theorised the growth of human capital. He stressed that a great part of what we consume is in fact investment, including education, training and healthcare. Even leisure can be an investment if it leads to enhancement of skill. Public spending on education, health and training represents investment in the workers' productive capacity.<sup>11</sup>

Thus, the social spending during the welfare boom unlocked the workers' potentialities - which had been constricted by low wages and bad living conditions - and triggered the increase in productivity. However, most people saw production and distribution as separate. All economic and political approaches converged on this wrong view.

The popular parties, despite being favourable to the welfare state, theorised that production must be independent of distribution. The Keynesians thought that production should, only temporarily, be encouraged by an increase in demand. The great majority of neo-classical authors were convinced that social spending subtracted wealth from investments and checked production.<sup>12</sup> The Marxists substantially followed Sweezy's interpretation, according to which the welfare state consisted in an unproductive use of the surplus. The latter, being in excess, had to be employed unproductively in order to avoid gluts in the market.<sup>13</sup>

Behind this unanimous neglect of human capital, there was a common distrust towards public spending, which was considered *per se* unproductive. Only a few economists did not share such a view.<sup>14</sup> On the other hand, the services were considered useful only as support for material production. After all, we were still in the industrial era, and the growth of production was mainly based on material products.

However, in the 1970s there were many signs suggesting that, to continue development, a vigorous increase of non-material or high quality goods was needed. Actually, new activities were arising, like production and sales of projects, analyses, statistical data, organisation; extension of education, training, culture, tourism and research; or greater investment (also for profit) in personal care, socialisation, tutoring of children and support for handicapped or elderly people, etc.

Besides, there was the need for modern infrastructures (like those of the Delors Plan, never actually implemented) and for information and communication networks. The need was already emerging for systematic work in every field to stop pollution and the greenhouse effect and to restore the environment, along with the need for new technological devices in every field, which required higher skill and specific research.

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<sup>9</sup> See Piketty (2014: 23-7; 97).

<sup>10</sup> OWD, Work and Life—Human Development Index.

<sup>11</sup> Schultz (1961; 1968: 280-81).

<sup>12</sup> See for ex. Bacon and Eltis (1976).

<sup>13</sup> Sweezy (1942, chs. 8.4 and 10.2). Baran and Sweezy (1966).

<sup>14</sup> See, among them, Hansen (1941: 144-52). Kuznets (1966: 224-34). Gough (1975). Rowthorn (1979).

All these activities (not yet fully developed) called for new investments in human capital, which were not implemented. Thus, the lack of new opportunities led the economy towards a saturation of the market and capital in excess. Then, to keep markets open, consumerism spread. Since then there has been an invasion of repetitive consumer goods, disposable implements, items with premature deterioration, new goods or services induced by fashion. Such goods enhance neither utility, nor indeed the consumers' productive capacity.

Other channels taken by the excess capital were, and still are, financial or land speculation which favoured the transformation of investment capital into rent.

Of course, there were also new fields for productive investment. First of all, the western countries agreed on globalisation, i.e. on reducing duties in international trade, especially through inter-state agreements, and also agreed on the free movement of capital across countries. Thus the western countries enlarged the market for their commodities. From 1950 to 2000 international trade grew from 8% to 27% of the world GDP.<sup>15</sup>

But globalisation also prompted western manufactures and capitals to move to the emerging countries, where they could enjoy lower wages and looser controls. In the end, globalisation supported emerging countries' development but was counter-productive for rich countries. A plan should have been implemented to convert traditional factories or gradually relocate them abroad. Another plan should have supported the re-training of unemployed workers. But we are still waiting for such policies.

It must be stressed that it is not only inequalities and poverty that destroy human capital; it is also the persistence of unskilled labour when qualified labour is needed. Since the end of the welfare state boom, the western countries have been trying to defend jobs in non-competitive factories. But there is no room for such a vast quantity of unskilled factory jobs in the western context of high wages. Old factories need to be reduced and converted to new skilled jobs and high quality products.

Besides globalisation, another great field of new investment was the digital revolution. Today digital procedures are increasingly pervading every field of work. They have opened a number of new production sectors: not only information technology and its applications, but also robotics, bio-technologies, medical equipment, 3D printers, etc. Huge databases, automatically collected, provide information on any subject. News, every kind of information and financial operations can be obtained or achieved in real time. Distribution is undergoing a radical restructuring thanks to online purchases.

Many people think that digital economy will improve democracy and participation. But non-material activities are now making it easier to concentrate markets, production and economic information. Digital monopolies represent the biggest concentration of wealth and power in the history of capitalism. They are able to obtain detailed information (profiles) on hundreds of millions of people (their customers) and to trade and sell it so that even Orwell's nightmares are becoming possible.

The western economic crisis, with increasing unemployment and poverty, is generating a deep-reaching social and political crisis. The basic values of western civilisation (human and civil rights, respect for other cultures, democracy) are called into question or despised. Those who are excluded from welfare or feel marginalised take refuge in their traditional identity by reviving old fanaticisms: superiority of religion, culture or race.

The disappointing paradox is that the great digital oligopolies - which have opened so many pioneering itineraries to the growth of human capital - coexist with, or foster a huge increase in rent (the greatest in a hundred years, according to Piketty).<sup>16</sup> Rent, of course, is exactly the

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<sup>15</sup> See Vaggi (2018: 132).

<sup>16</sup> Piketty (2014: 232-3).

opposite of human capital. While the latter is linked to merit, labour and personal improvement, big rents derive from fortune and parasitism.

### **3. Education without growth of human capital**

Post-industrial production differs from industrial production. The latter has to do mainly with basic needs, which are limited, while the former is based on more refined needs, and goods which are produced above all by intellectual labour. This was best demonstrated by some economists who analysed Engel's law.

In 1857 Ernst Engel had noticed that the percentage of spending on food out of the total income diminished in proportion to the increase in the income. Pasinetti extended this law to all final goods. He wrote that, when income steadily increases, the percentage of basic consumption decreases, while that of refined consumption grows. This makes human capital grow.<sup>17</sup> In turn, Kindleberger used Engel's law to analyse the production factors. In the economies based on agriculture, the production factor that determines the value of goods is land. In industrial economies, it is capital; while human capital is the basic production factor of post-industrial economies. Kindleberger underlined that traditional goods have low elasticity to income, and their market thus tends towards saturation.<sup>18</sup> The impasse of saturation is precisely what happened at the end of the welfare state economy.

Kindleberger also indicated the way to restart development. In order to avoid saturation, new goods must be produced and new fields of production must be opened. He affirmed that this can be achieved thanks to the support of the state (today Mazzucato holds the same position).<sup>19</sup>

State intervention should go in several directions. First of all, it should satisfy the needs which are still unsatisfied, like those mentioned above. Most important is, of course, efficient public administration at the national and local level. Then, the state should encourage new sectors of production, and provide a series of services to private enterprises, from information on investment opportunities to lending money at low interest rates for the long-run investments, etc.

But the contrary line has prevailed. In the 1980s, precisely when information technology was becoming the driving force of accumulation, the welfare policy that enhanced human capital rapidly went into decline, public interventions were criticised in principle and deregulation became the new mantra of political economy.

As a result, the unemployment created by the technological revolution - in addition to that caused by saturation and globalisation - was not relieved with any appropriate remedy. This growing unemployment and deregulation allowed enterprises to increase exploitation of the workers through low wages and poorer working conditions.

For European young people unemployment now stands at 16%.<sup>20</sup> But in actual fact general unemployment is undervalued, because the official figures take into account temporary, occasional and involuntary part-time jobs as if they were steady jobs (in Southern Europe more than 50% of part-time jobs are involuntary).<sup>21</sup>

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<sup>17</sup> Pasinetti (1981, ch. 11.16).

<sup>18</sup> Kindleberger (1990: 5-13).

<sup>19</sup> Mazzucato (2018, ch. 8). Kindleberger (1990: 14-21).

<sup>20</sup> Eurostat-Unemployment, online.

<sup>21</sup> See Atkinson (2015: 136; 138).

On the other hand, a high percentage of the wage labour employed, directly or indirectly, by the multinationals is practically slave labour. Slave labour in the world involves about 25 million people.<sup>22</sup> And the children working in inhuman conditions number 152 million.<sup>23</sup>

Deregulation also allows multinationals to evade or elude taxes. Thus the state has become poor precisely when social spending should be increasing to cope with the growing poverty of people. Today the public services are deteriorating, which again increases poverty and destroys human capital potential. In 2004 the US multinationals actually paid a tax of 2.3% for their 700 billion profits.<sup>24</sup>

Stiglitz writes: "According to the IMF, governments lose at least 500 billion dollar per year as a result of corporate tax shifting. And Gabriel Zucman ... and his colleagues estimate that some 40% of overseas profits made by US multinationals are transferred to tax havens. In 2018, 60 of the 500 largest companies ... paid no US tax, despite reporting joint profits (on a global basis) of some \$80bn. These trends are having a devastating impact on national tax revenues and undermining the public's sense of fairness".<sup>25</sup>

Thus, although there is a speedy growth in the human capital of a minority, the extensive destruction of human capital is spreading due to unemployment, poverty, the digital divide and lack of social spending; in a word, due to inequalities. In 2010, the top 10% of western population owned about 60% of the total wealth (72% in the US).<sup>26</sup> In the US, the top 1% owned 18.3% of the total wealth in 2016.<sup>27</sup> In 2018, the poorest half of the world population (3.8 billion) owned an amount of wealth equal to that of the 26 richest individuals.<sup>28</sup>

These inequalities are growing while the upward trend of wealth in the western countries is slowing down. From 1969 to 2019, the per-capita GDP growth of the OECD countries dropped from an average of 3% a year to 1%.<sup>29</sup> As the production of social wealth declines the top families' wealth increases, which disproves the alleged benefits of the trickle down theory on which the rapacious minorities have built up their fortunes. The trickle-down theory holds that the rich should pay low taxes because their investments benefit all of society.<sup>30</sup> Actually, the only visible trickle down effect in the last decades has been an enormous displacement of wealth from productive investment to parasitic rent.

However, in many emerging countries human capital is growing, with reciprocal enhancement between increase in education/skill and increase in production/consumption. From 1980 to 2017, at least ten countries (China and India included) have seen their Index of Human Development soaring by about 30 percentage points; another ten or more countries increased by 20 percentage points. In all these countries a large middle class grew, indicative of a steady increase in human capital.

The general world context is now more favourable to the growth of human capital. Nearly all children of both sexes enter primary school. Extreme poverty (less than 2 US dollars per-capita a

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<sup>22</sup> *Global Slavery Index* 2018, online.

<sup>23</sup> *Ibid.* — *Global Findings*: 28-9.

<sup>24</sup> Gallino (2013: 62).

<sup>25</sup> Stiglitz (2019). See Zucman (2013: 47-55; chs. 3 and 5).

<sup>26</sup> See Piketty (2014: 249, 257-8). See also Atkinson (2015: 68-81).

<sup>27</sup> Baker (2016: 26-7). See also Stiglitz (2013).

<sup>28</sup> Oxfam (2019: 5-14).

<sup>29</sup> Worldbank, see Valentini (2019).

<sup>30</sup> For a criticism of this thesis, see Vaggi (2018: 61-5 and passim).

day) is diminishing by about 1% a year.<sup>31</sup> Literacy is now 86%. In Algeria literacy stands at 16% among people aged 65 years or more, but at 92% among people under 25. Similar huge progress is to be seen in Saudi Arabia, Iran, etc.<sup>32</sup>

But in Latin America, although there are well-established education and health care systems, only a privileged minority enjoys them. Latin American societies tend to be static; there is no visible growth of human capital. The middle classes are still too small, and partly share the privileges of the rich. In the vast majority of African and South-Asian countries, the waste of human capital is still huge. In many of these countries the economy is even worsening.

#### **4. Restarting the growth of human capital**

At present the de-regulated market is proving unable to accomplish western transition from the industrial to the post-industrial economy. On the contrary, it favours the transformation of a growing part of wealth into rent. While the displacement of western manufactures towards the emerging countries is going ahead, the growth of the post-industrial economy is proceeding too slowly. The picture offered by Silicon Valley society is emblematic. In that area, many advanced technicians of the digital economy are homeless due to the disproportion between their salaries and the rents they have to pay for their apartments.

Moreover, the issue of migration must be taken into account. The western countries are handling migrant flows in a very short-sighted way. The governments endeavour to hold them back, while their economy desperately needs new work-force. They need migrants for two reasons. First, western young people reject unskilled jobs, having invested a lot of time in their studies. Second, the western population is growing old and the birth rate is dropping (both phenomena are due to welfare).

By the end of this century, Europe will have lost 100 million people. On the other hand, Africa has a very high birth rate: at least 2% and, in many countries, 3%.<sup>33</sup> African demographic growth derives from a partial exit from absolute poverty and improving health care. If the development of poor countries is sustained, sooner or later the demographic transition will start and the upward trend of the birth rate will slow down. But this also depends on western policy, because the demographic transition is the result of a certain welfare.

But is this picture of decline we have painted inevitable? By no means. The growth of human capital can drive us out of the crisis. This growth, in the western economies, has already led to an increase in productivity of such proportions that society would be able to satisfy its usual needs with a small percentage of the work that is being done at present.

Thus, the great unemployment oppressing our society is in fact the consequence of great progress. Only a leading role by the state can reconcile such contrasting tendencies and carry through the welfare development that came at a halt in the 1980s. The state should discourage the extension of rents and excesses of profit and seriously levy the due taxes. With the money thus recovered the state should start a plan of major investments to satisfy new and old needs and create new employment, supporting the productive private investments and extending the growth of human capital among people of low incomes.

Unemployment is the crucial issue. It causes discontent and frustration even when society is able to provide the unemployed with a decent income. Labour is still an important factor to achieve full citizenship, independently of income. Keynes appreciated this fact. He wrote that, thanks to technical progress, humanity will eliminate scarcity; the difficulty will then be how to adapt to a life without work.<sup>34</sup>

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<sup>31</sup> Oxfam (2019: 10-27).

<sup>32</sup> UNESCO e OECD data (see OWD, Education-Literacy).

<sup>33</sup> OWD—World Population Growth

<sup>34</sup> Keynes (1930: 4-5).

Besides, the economy based on human capital tends to transform the very nature of labour. The more labour depends on skill and creativity the less the present quantitative controls (timetables, work pace, number of products, etc.) will be able to assess its social productivity. Thus, labour productivity is increasingly becoming the result of the general advance in skill, culture and social organisation.

For instance, the humanitarian work of the non-governmental organisations (NGOs) must now be considered highly productive, because they greatly enhance human capital, especially in the poor countries. In this context, the rich societies can contemplate planned intervention for the development of the backward economies. There would also be a great number of major investments, with long-run but very high returns. Collaboration on such projects could extend in many directions, to the institutions, NGOs and humanitarian foundations, networks of enterprises and banks. This would also constitute a powerful drive to restart western development, providing employment to a great many skilled young people.

Today it is impossible for the poor countries to repeat the western itinerary to development, as Gary Becker's analyses suggest. The major role played by human capital has upset the old distinction between labour-intensive production (economically and technologically backward) and capital-intensive production (technologically advanced and highly productive). Now, thanks to skill and education, labour-intensive (skilled) production is more advanced and more productive than big factory plants.<sup>35</sup>

Becker also examined the Ricardian law of comparative advantages, which stated that in international trade every country has more to gain if it specialises in the sector where it is most productive. He maintained that the advantages no longer depend on the different resource endowments, but rather on the infinite variety of goods, generated by skills. This is why the rich countries, despite their production similarities, have an increasing interchange (ibid.: 20-21).

Today, Becker's analyses show that skill and the general growth of human capital are the driving forces of development also in the poor countries. Only substantial growth of human capital can restart the western economy and, at the same time, can foster the development of the poor countries.

## References

- Atkinson, Anthony (2015) *Inequality*, Cambridge, MA - London: Harvard U. P.
- Bacon, Robert and Eltis, Walter (1976) *Britain's Economic Problem: Too Few Producers*, London: Macmillan.
- Baker, Dean (2016) *Rigged: How Globalization and the Rules of the Modern Economy Were Structured to Make the Rich Richer*, Center for Economic and Policy Research: Washington, D.C.
- Becker, Gary (1964) *Human Capital ...with Special Reference to Education*. Chicago: Univ. of Chicago Press.
- Baran, Paul and Sweezy, Paul (1966) *Monopoly Capitalism*, New York - London: Modern Reader, 1968, [scribd.com](https://www.scribd.com) .
- Cantillon, Richard [1730] *Essai sur la nature du commerce en général*, London: Macmillan, 1931.
- Defoe, Daniel (1728) *Plan of the English Commerce ...*, New York: Kelley, 1967.
- Dunoyer, Charles (1830) *Nouveau traité d'économie sociale*, Paris: Guillaumin.

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<sup>35</sup> Becker (1964: 59-60).



- Eisdell, Joseph (1839) *A Treatise on the Industry of Nations ...*, London: Whittaker, online.
- Fortrey, Samuel (1663) *England's Interest and Improvement*, in J.R. McCulloch, *A Select Collection of Early English Tracts on Commerce*, London: Political Economy Club, 1856: 201-49.
- Gallino, Luciano (2013) *Il colpo di stato di banche e governi*, Torino: Einaudi.
- Gough, Ian (1975) "State Expenditures in Advanced Capitalism", *New Left Rev.*, July-Aug.: 53-92.
- Hansen, Alvin (1941) *Fiscal Policy and Business Cycle*, London: Allen & Unwin.
- Keynes, John Maynard (1930) "Economic possibilities for our grandchildren", online: in his *Essays in Persuasion*, New York: Norton, 1963: 358-73 ([yale.edu](http://yale.edu)).
- Kindleberger, Charles (1990) *Leggi economiche e storia dell'economia*, trans. from English, Roma - Bari: Laterza.
- Kuznets, Simon (1966) *Modern Economic Growth*, New Haven, CT: Yale U.P.
- List, Friedrich (1841) *The National System of Political Economy*, trans. from German, London: Longmans & Green 1909, online: Library of Economics & Liberty.
- Marshall, Alfred (1890) *Principles of Economics*, 8th ed., London: Macmillan, 1920, online: Library of Economics & Liberty.
- Mazzucato, Mariana (2018) *The Value of Everything*, Allen Lane - Penguin.
- Mill, John Stuart (1844) *Essays on Some Unsettled Questions ...*, 2nd ed. 1874, London: Longman etc., online: Library of Economics & Liberty.
- OWD (*Our World in Data*), ed. by Max Roser, online: <https://ourworldindata.org/>
- Oxfam (2019) "Oxfam Briefing paper", January 2019, Italian version, online [www.oxfam.it](http://www.oxfam.it)
- Pasinetti, Luigi (1981) *Dinamica strutturale e sviluppo economico*, Torino: UTET, 1984.
- Perrotta, Cosimo (2004) *Consumption as an Investment*, London - New York: Routledge.
- — — (2018) *Unproductive Labour in Political Economy*, London-New York: Routledge.
- Piketty, Thomas (2014) *Capital in the Twenty-First Century*, Harvard U.P.: Cambridge MA - London. Trans. from French ed. (2013) and updated.
- Rowthorn, Bob (1979) "Skilled labour in the Marxist system", now in his *Capitalism, Conflict and Inflation*, London: Lawrence & Wishart, 1980: 231-45.
- Schultz, Theodore (1961) "Investment in Human Capital", *American Economic Rev.*, March: 1-17.
- — — (1968) "Capital, Human", *International Encyclopaedia of the Social Sciences*, New York: Macmillan & The Free Press, vol. 2: 278-87.
- Smith, Adam (1776) *Wealth of Nations*, E. Cannan ed., London: Methuen, 1904, online: Library of Economics & Liberty.
- Starkey, Thomas (1529-32) *A Dialogue between Pole and Lupset*, London: Royal Historical Soc.

Stiglitz, Joseph (2013) *The price of Inequality*, New York - London: Norton.

— — — (2019) “Corporate tax avoidance: it's no longer enough to take half measures”, *The Guardian*, international ed., 7 Oct. 2019, online.

Sweezy, Paul (1942) *The Theory of Capitalist Development*, London: Dobson, [wordpress.com](http://wordpress.com) .

Vaggi, Gianni (2018) *Development*, Palgrave-Macmillan.

Valentini, Ezio (2019) “Structural crisis and robotisation require more Europe, less austerity”, *Social Europe*, online periodical, 4th June 2019.

Zucman, Gabriel (2013) *The Hidden Wealth of Nations*, Chicago-London: Univ. of Chicago Press, 2015, trans. from French.