

# LABOR, MONEY, CONSTITUTIONS AND INTERNATIONAL POLICY MAKING

## ADAM SMITH'S IDEAS ON THE DIVISION OF LABOR\*

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### Abstract

*Adam Smith's exposition of the topic of division of labor was not only unoriginal, but also not particularly profound or thoroughgoing. Presenting the matter in the way it is often done in modern works, namely as if “The Wealth of Nations” addressed basically everything that economic and social sciences could say about it, would be a big mistake. The actual significance of the first three chapters of this book for economic and social sciences rather lies in the fact that Smith outlined with “dotted lines”, so to say, a number of key aspects which served as stimuli for and sources of inspiration for several subsequent generations of researchers dealing with issues related to division of labor in one way or another. As such, “The Wealth of Nations”, indeed, played an important role in the history of thought, and continues to play it to this day.*

**Key words:** *division of labor; Adam Smith; economic theory.*

## 1. INTRODUCTION

In recent years — especially since the global financial and economic crisis began in 2007–2008, largely unresolved to this day — the need to revise methodological approaches and to update theoretical tools has been actively discussed among economists. Some authors have expressed the belief that a paradigm shift in economics is coming<sup>5</sup>. The question of what direction that shift will take is to be central in present-day theoretical and methodological discussions.

Theory of production (along with theories of exchange, distribution and consumption) must constitute one of the key elements of any economic theory. However, the neoclassical paradigm currently dominant in economics takes rather peculiar position in this respect. On the one hand, within macroeconomics, theory of production boils down to creating some real-valued

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<sup>5</sup> See e.g.: Mau V., Ulyukaev A. “Global Crisis And Trends Of Economic Development,” *Voprosy Ekonomiki*, 2014, no.11 p.6. (in Russian.) <https://doi.org/10.32609/0042-8736-2014-11-4-24>.

mathematical function which makes possible the calculation of an aggregate quantity of goods and services produced in the society (e.g. GDP) based on statistically verifiable interdependencies with other macroeconomic indicators. On the other hand, within microeconomics, everything that has to do with production processes is considered to be raw data in general equilibrium models, not requiring any further theoretical and/or empirical explanation<sup>6</sup>. In both cases, the study of production *per se* is essentially phased out of economic theory and “outsourced” to other, social and engineering, disciplines. All this results in a bewildering methodological paradox, where theory “deals” with a certain subject (and everyone is expecting it to do this) while refusing to substantively study it.

Nevertheless, the need to develop a meaningful theory of production still exists, and applied economic and social sciences incessantly demand it. A substantial analysis of processes taking place in modern economy and, in particular, of the emergence and development of highly complex production systems cannot be limited to statistical relationships among macroeconomic indicators or formal models of markets.

With this mismatch between intellectual demand and supply, one can see increasing interest in classical economics as well as other groundwork of the period of economic theory preceding the so-called neoclassical synthesis. Indeed, until about the 1930s, economic theorists devoted considerable attention to various aspects of the theory of production. Development of ideas on division of labor was part of these efforts. Interest in classical economics and attention to the topic of division of labor inevitably lead us to the person of Adam Smith, who is commonly referred to as the founding father of modern economics (which is a vast overstatement, however). What can — and what cannot — today’s reading of Smith’s theoretical framework contribute to the understanding of the phenomenon of division of labor?

If typical individuals with a degree in social sciences or philosophy were to be asked with what “key words” they associate the name of Adam Smith (1723–1790), “division of labor” would likely be the second most frequent response, only behind the famous “invisible hand” metaphor (by which Smith tried to present figuratively his theory of social efficiency of voluntary exchange). Perhaps, such a response should not be surprising, as it is with the topic of division of labor that the author begins his magnum opus, *An Inquiry into the Nature and Causes of the Wealth of Nations*, generally referred to by its shortened title *The Wealth of Nations*. The first three chapters of this book have been countlessly mentioned and cited in academic literature on economic theory, management and other social disciplines, and thus it is virtually impossible not to form an associative link between Adam Smith and division of labor<sup>7</sup>. At times, it goes as far as claiming Adam Smith to be the author of the idea of division of labor—or, at the very least, the idea of specialization within a particular firm<sup>8</sup>.

Nevertheless, anyone remotely interested in the topic can easily discover that, being the founder of the classical school of political economy, Smith was not in fact the pioneer to introduce division of labor or even the first researcher of human society to take notice of it<sup>9</sup>. At the same time, it would be a mistake to disregard completely Smith’s discourse on division of labor and to claim it to be of purely historical interest, dismissing any mentions of it in modern literature as a simple conformity to tradition. One of the reasons for its importance was pointed by Joseph Schumpeter, who addressed the interpretation of division of labor by Adam Smith as follows: “Though, as we know, there is nothing original about it, one feature must be mentioned that has not received the attention it deserves: nobody, either before or after A. Smith, ever thought of putting such a burden

<sup>6</sup> For further details see Shchedrovitsky P., Kuznetsov Y. “From Division of Labour to Division of Activity,” *Russian Journal of Philosophical Sciences*, 2014, no.6, pp. 49-64 (in Russian) (esp. section 3).

<sup>7</sup> See e.g. Paul A. Samuelson, William D. Nordhaus, *Economics*. 19<sup>th</sup> ed. Boston etc.: McGraw-Hill-Irwin, 2009, p.30;

Michael H. Mescon, Michael Albert, Franklin Khedouri, *Management*, 2<sup>nd</sup> ed. New York: Harper & Row, 1985, p. 76.

<sup>8</sup> Michael H. Mescon, Michael Albert, Franklin Khedouri, *ibid*.

<sup>9</sup> Brief review of pre-Smithian literature on division of labor see in our article: Shchedrovitsky P., Kuznetsov Y., *op. cit.*; see also bibliography listed there.

upon division of labor. With A. Smith it is practically the only factor in economic progress.”<sup>10</sup> In other words, the reasoning of the classic economist constituted one of the first modern models of economic growth further developed in much more recent theories.

Another reason to remember Smith’s work is that it contains in embryonic form many issues and problems connected with the concept “division of labor”. Some of these issues have been developed in various disciplines (not only economic theory) while some others have remained “frozen,” waiting for their researcher. It is important to emphasize that these ideas are not only a part of the history of economic thought. Development of economic theory eventually led to issues of division of labor being “expunged” from its domain (at least from the areas of interest of the economic mainstream)<sup>11</sup>. These ideas had a huge impact on philosophy and theory of management. We will also be interested in their significance for the general theory of human action, which began to develop in the second half of the 19th century (regardless of which particular discipline the theory could be assigned to).

Our paper is written in the genre of detailed commentary on the first three chapters of *The Wealth of Nations*, where the issue of division of labor (DoL) is examined. We focus on statements and fragments that contain general remarks on DoL as well as the context of such statements. Our commentary will be critical in the sense that we will try to not only present the ideas of the author, but also to pinpoint obscurities, problems and ambiguities, resolution of which is a prerequisite for formulating a general theory of DoL and which have largely stimulated the intellectual search by subsequent authors up until now.

## 2. DIVISION OF LABOR IN SOCIETIES AND ORGANIZATIONS

The very first paragraph in the first chapter of *The Wealth of Nations*, titled “Of the Division of Labour,” immediately features a pivotal methodological statement by Smith, “The effects of the division of labour, in the general business of society, will be more easily understood by considering in what manner it operates in some particular manufactures.”<sup>12</sup> It becomes evident from the following text that the author means by “particular manufacture” a production unit that produces a single final consumer good which satisfies “small wants of but a small number of people” and which can fully fit into a single “workhouse,” whereas in large manufactures “every different branch of the work employs so great a number of workmen, that it is impossible to collect them all into the same workhouse.” This premise is required for DoL to be possible to grasp by a single “spectator”. In other words, it appears to Smith that division of labor would not be a phenomenon as observable and obvious if the spectator were unable to simultaneously see the work of several people performing different parts of the work *along with the transition of intermediate products from one operation to another*.

Such a justification for the choice of the object observed is rather puzzling if one considers the subsequent “macroeconomic” conclusions made by Smith from the existence of DoL (they will be discussed in more detail in Section 5 below). The existence of DoL in society as well as a number of its causes have already been spoken of by many authors since ancient times. Similarly, it has long been acknowledged that the potential of division of labor depends upon market size (the topic of the third chapter of *The Wealth of Nations*): in particular, Xenophon wrote about it in *Cyropedia*; Plato was already aware that specialization of labor improves workers’ productivity. All of this was intuitively clear: in order to establish that a cobbler should stick to his last, there was no need to place him together with other workers in the same “workhouse”.

Some more reflection reveals another peculiarity of the phrase cited above: on what grounds does Smith argue that observing a “particular manufacture” (a “production unit of society,” so to

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<sup>10</sup> Joseph A. Schumpeter, *History of Economic Analysis*, Taylor & Francis e-Library, 2006, p. 182.

<sup>11</sup> See Shchedrovitsky P., Kuznetsov Y., op. cit.

<sup>12</sup> Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. New York: Random House, 1937, pp.3-4.

speak) may deliver knowledge that could be applied to society as a whole? To be sure, this kind of reasoning had often been used in the works of previous authors: for instance, in political philosophy, since the days of Aristotle there had been reflections on society as a whole or on a polity using an analogy with the family. However, being a thinker of the Scottish Enlightenment, Adam Smith was well aware that conclusions made in regards to isolated phenomena cannot be directly translated to society as a whole. As a matter of fact, his theory supporting social efficiency (from the point of view of the common good) of voluntary exchange among people driven by selfish interests serves as a striking example of discourse showing that a direct transition from the individual level to a more general (e.g. societal) one by means of an analogy is invalid. It would have been reasonable to expect the thinker to tackle the case of DoL in the same manner. However, he did not.

These methodological oddities can be easily overlooked, as the author immediately proceeds to the most vivid theme of the three chapters, namely a description of a pin factory<sup>13</sup>—an example so illustrative and impressive that it has been moving on from textbook to textbook ever since. We will linger on them, however, and ask ourselves: if the choice of such an object of description as a basic “element” of the theory of DoL is at least questionable, then what is the point of it? Today it would be hardly possible to explain exactly why Smith chose this kind of object in order to support his theory of DoL instead of opting for DoL across firms or regions (as William Petty did in *Political Arithmetick*). But we can hypothesize that, intuitively, he sensed the importance of the aspect of such production structures connected with the entrepreneurial and managerial task of dividing the production process into operations (works), creating normative descriptions of them (setting of standards), and establishing a logistics system—that is, organizing the transition of intermediate products of these works between stages of the production process. Nowhere in *The Wealth of Nations* does Smith expound upon this point, and the lack of this reasoning, perhaps, speaks for the historical role of his work no less than the ideas present in it do. Division of labor in manufacture (or division of work) as a special economic phenomenon distinct from division of labor in society as a whole was studied by a much later generations of authors, such as Charles Babbage and Andrew Ure, who specialized in management theory and practice rather than economic theory. Regarding the creation of logistics systems as a separate objective, it is largely the “assembly line revolution” era when it was clearly articulated and analyzed and when respective solutions began to be developed.

The main general conclusion drawn by Smith from examining the pin factory example is as follows, “The division of labour, however, so far as it can be introduced, occasions, in every art, a proportionable increase of the productive powers of labour. The separation of different trades and employments from one another seems to have taken place in consequence of this advantage.”<sup>14</sup> The following remarks can be made about this excerpt.

Firstly, an increase in productivity can result not only from distribution of separate operations, or tasks, and a corresponding specialization of individual workers. For instance, as further discourse shows, Smith is well aware of productivity growth stemming from the invention and implementation of machines. Even though he notes that DoL can contribute to mechanization, it is clear that it is not the only reason for this process. Another method of improving productivity implies favorable production location, and Smith is knowledgeable on this as well. If productivity growth is the main result of DoL, why does Smith not examine other possible sources of that increase within a single “list”?

Secondly, as has already been noted above, it has long been known that causes and factors contributing to DoL include differences in individual abilities, geographical location and people’s needs — once again, as further reasoning indicates, Smith is perfectly aware of this. Why does he

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<sup>13</sup> Smith, op. cit., pp.4-5.

<sup>14</sup> Smith, op. cit., p.5.

highlight productivity growth resulting from specialization within a manufacture as the main, if not the only, reason for separation of trades and occupations from each other?

One of the possible explanations may lie in the fact that Smith was influenced by his Scottish Puritan background. A similar hypothesis was proposed by an American economist Murray Rothbard, with regard to the origin of Smith's theory of value. According to Rothbard, the importance of labor as opposed to consumption constantly highlighted by Puritans may have influenced Adam Smith in his formulation of the labor theory of value, which was later used in Marxist socialism to base all its conceptual constructs upon<sup>15</sup>. However, this explanation is but a hypothesis for now, and the question of how and whether Puritan beliefs had an effect on Smith's economic doctrine is yet to be studied separately.

### 3. ADVANTAGES OF DIVISION OF LABOR: MAN A MACHINE

In the following, theoretically important passage, Smith distinguishes three different "circumstances" under which DoL within a particular manufacture can lead to productivity growth<sup>16</sup>. It would be more accurate to call these "circumstances" utilitarian prerequisites to DoL — that is, features of the outside world which make it potentially beneficial. We are going to address them one by one.

1. "The improvement of the dexterity of the workman necessarily increases the quantity of the work he can perform; and the division of labour, by reducing every man's business to some one simple operation, and by making this operation the sole employment of his life, necessarily increases very much dexterity of the workman."<sup>17</sup>

In essence, this reasoning implies that a worker's body, akin to a factory "machine" ("neuromechanical" in nature, as we would put it), has a certain characteristic, or a group of characteristics, which reflects potential to learn certain physical skills. This can be envisioned as some kind of non-linear relation — economy of scale, or indivisibility: the human machine (unlike cotton, grain or nails, for instance) cannot be divided into parts to be assigned to different production lines; it has to be used in its entirety for a single process in order to achieve maximum effect. We would like to emphasize that psychophysiological characteristics of a human being as a kind of tool or machine are in question: in a similar manner, specialized equipment is often much more productive than universal machinery.

2. "The advantage which is gained by saving the time commonly lost in passing from one sort of work to another is much greater than we should at first view be apt to imagine it. It is impossible to pass very quickly from one kind of work to another that is carried on in a different place and with quite different tools."<sup>18</sup>

Strictly speaking, this fragment refers to three very different factors. The first one represents savings on movement of a given worker in space, between different places within a production site. In this sense, it is similar to such productivity enhancing factors as geographic concentration and clustering of interrelated manufactures, except, unlike the latter, it only manifests itself at the local level. The second factor, not connected to the first one logically, is saving time which would be spent switching between operations (pauses); it is similar to the first one, but concerns the temporal dimension of a production process rather than the spatial one. Finally, the third factor involves the psychophysiological ability of the human machine to switch between operations within one working day, "A man commonly saunters a little in turning his hand from one sort of employment to

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<sup>15</sup> Murray N. Rothbard, *Economic Thought before Adam Smith. (An Austrian Perspective on the History of Economic Thought. Volume 1.)*. Cheltenham, UK; Northampton, MA, USA: Edward Elgar, 1995, pp. 142-143, also chapters 4, 12 and 14.

<sup>16</sup> Smith, op. cit., p.7.

<sup>17</sup> Ibid.

<sup>18</sup> Smith, op. cit., p.8.

another. When he first begins the new work he is seldom very keen and hearty; his mind, as they say, does not go to it, and for some time he rather trifles than applies to good purpose.”

In other words, the above also refers to the potential of a more efficient use of a worker as a “tool” or “machine” integrated into the production process within a firm.

3 “Every body must be sensible how much labour is facilitated and abridged by the application of proper machinery. [...] Men are much more likely to discover easier and readier methods of attaining any object when the whole attention of their minds is directed towards that single object than when it is dissipated among a great variety of things. [...] A great part of the machines made use of in those manufactures in which labour is most subdivided, were originally the inventions of common workmen, who, being each of them employed in some very simple operation, naturally turned their thoughts towards finding out easier and readier methods of performing it.”<sup>19</sup> Once again, the above addresses a certain effect of applying “mental faculties” (neurophysiological processes, as we would say today) connected with the speed of developing skills as well as attention span.

As such, all three statements by Smith largely boil down to a set of interrelated psychophysical properties of the human body reflecting its abilities to learn, concentrate and shift attention (short-term learning). Two more factors are mentioned in addition, namely the spatial separation of different types of operations and inevitable pauses generated by switching from one type of activity to another.

In our opinion, the most interesting detail is that in the fragment of the first chapter, dedicated to the “three circumstances” of DoL, Smith essentially regards a human worker as a kind of tool or “machine” that is incorporated into the production process and is to be used most efficiently, or economically. The very same reasoning can be used to describe the benefits of specialized machines compared with more universal machines (a human is, without doubt, among the most universal “machines” available). *No gains of trade between the owner or the manager and their employees are in question here.* In this respect, the passage represents a striking contrast with what follows in the next two chapters, where DoL is basically regarded as one of the aspects of exchange (we will get back to this matter below).

Here, DoL is essentially interpreted as the result of a holistic process of consumer good production being divided into separate standard operations carried out by separate standardized “machines” (humans included). The benefit of division is articulated, and yet the process of its coming into existence is not analyzed at all.

This part of Smith’s review of DoL implicitly contains another aspect which is of interest as far as further development of the idea of division of labor goes, namely the relationship between “the natural” and “the artificial” in the system of DoL. It is interesting to note that Smith says here nothing on the topic of natural differences in human abilities, which had typically promptly been addressed by earlier authors in the context of DoL. The use of the “human machine” as an element of the production process, performance of which goes up as skills in performing standardized operations are built, implies a kind of “artificial reconstruction” of the human being. The more the individual specializes in their field and the more standardized their actions become, the less important the role of his “natural” features becomes, and the same could be said of “natural” differences between people. Individuals having mastered the same skills turn out to be interchangeable to a large extent, whereas the “natural human” is unique. At the same time, Smith admits that DoL may emerge from “natural” differences between people (or places), the matter is discussed in the later chapters.

It is clear that the potential of the “human machine” theme as well as human standardization was used in the teachings of many thinkers after Smith, including Karl Marx in his theory of alienation. What is more interesting, however, is that Smith’s description and its contradictions

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<sup>19</sup> Smith, op. cit., p.9.

already implicitly contain the “standardization vs the use of natural differences” dilemma as well as the issue of the logic of the choice between the two.

#### 4. ADVANTAGES OF DIVISION OF LABOR: IS IT A SUFFICIENT RATIONALE?

Even before Smith, utilitarian prerequisites for DoL had been put into the spotlight of discourse on this topic, which one can find in the works of both ancient authors and European authors of the 17th–18th centuries. Unfortunately, discussions of it in modern academic publications and standard economic theory textbooks have been largely limited to references to possible benefits.

The problem with this approach is that the presence of utilitarian prerequisites cannot serve as a comprehensive explanation of why DoL is implemented and developed by humans, nor can it serve as a description of the corresponding social processes. The truth is that *the presence of a potential source of benefits does not necessarily mean that these benefits are realized*. For this potential to be used, people need to have at least the opportunity to interact for mutual gain, which implies a guarantee that others would not attempt to appropriate by force all the benefits of DoL for themselves<sup>20</sup>. And, above all, the participants of the future DoL have to execute a series of appropriate mental operations to transform the potential capabilities of the DoL system into a concrete plan of activities (organizational development project) which can be implemented (i.e. they have to perform entrepreneurial and management functions).

Of course, in *The Wealth of Nations*, Smith addresses some of the “non-utilitarian” prerequisites of DoL, for example, in referring to the central role of private property in the development of mutually beneficial exchange, which contributes to general welfare. However, he does not directly associate this matter with the topic of DoL, basically interpreting the latter as an inevitable “natural” occurrence arising partly from utility and partly from a certain “propensity in human nature.”

#### 5. DIVISION OF LABOR AND EXCHANGE

The second chapter of *The Wealth of Nations* is called “Of the Principle which gives occasion to the Division of Labour.” Apart from benefits resulting from DoL and constituting its “circumstances,” there is a certain fundamental “principle” causing it. What is it?

Smith writes, “This division of labour, from which so many advantages are derived, is not originally the effect of any human wisdom, which foresees and intends that general opulence to which it gives occasion. It is the necessary, though very slow and gradual consequence of a certain propensity in human nature which has in view no such extensive utility; the propensity to truck, barter, and exchange one thing for another. Whether this propensity be one of those original principles in human nature of which no further account can be given; or whether, as seems more probable, it be the necessary consequence of the faculties of reason and speech, it belongs not to our present subject to inquire.”<sup>21</sup> The causal relation, according to Smith, is, therefore, as follows: the ability to use reason and speech in humans creates a natural inclination to trade and exchange, whereas the latter gives rise to DoL in some automatic manner.

Adam Smith’s reasoning makes a logical leap here. In the previous chapter, the discussion was centered mainly around benefits of division of labor within a separate manufacture. As we have attempted to demonstrate above, those benefits are not logically connected with the fact that the worker enters into an exchange relationship with the employer, but were instead mainly explained by the specific “configuration” of the worker as an element of production process as well as the

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<sup>20</sup> For more information on these “non-utilitarian” prerequisites, see: Hülsmann J.G. “Discursive Rationality and the Division of Labour: How Cooperation Emerges.” *American Journal of Economics and Sociology*, vol. 58, no. 4 (Oct., 1999), pp. 713-727.

<sup>21</sup> Smith, op. cit., p.13.

spatial and temporal structure of this process, rather than the worker's role of a conscious participant in an exchange, even if driven by a certain natural propensity.

Later the text features a famous passage on the role of mutually beneficial exchange in meeting needs of people, "But man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favour, and show them that it is for their own advantage to do for him what he requires of them. Whoever offers to another a bargain of any kind, proposes to do this. Give me that which I want, and you shall have this which you want, is the meaning of every such offer; and it is in this manner that we obtain from one another the far greater part of those good offices which we stand in need of. It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages."<sup>22</sup> Smith then gives the phenomenon of DoL a new explanation, articulating it as follows, "As it is by treaty, by barter, and by purchase that we obtain from one another the greater part of those mutual good offices which we stand in need of, so it is this same trucking disposition which originally gives occasion to the division of labour".<sup>23</sup> Later he illustrates his thesis by discussing how DoL could have emerged in tribal society, and the resulting description is quite similar to, for instance, the respective passage by Plato.

It is important to note that a rather similar phrase (cited above, in Section 2) can be found in the previous chapter; however, it refers to another reason: the separation of various occupations and tasks from each other is instead caused by the advantage in labor productivity that DoL offers. This prompts an obvious question: what cause have actually "created" DoL—propensity (or ability) to enter mutual exchange *or* gains in labor productivity due to separation of tasks in the production process? Smith does not provide an answer to this question—moreover, he does not even formulate it. He simply names two fundamental phenomena without dwelling on the relation between them.

Looking at this from today's perspective, we can state that the two chapters alternate between two different, although interrelated, phenomena, which have different, although interacting, causes. First, what we can call *internal, or manufacturing, division of labor* is considered — a complex systemic phenomenon in the sphere of production, which implies separate participants of a process performing numerous heterogeneous functions (cognitive ones included). One of the features of this phenomenon is "organized order". Second, the focus is on *societal division of labor*, closely connected with exchange and producing *spontaneous order* (in Hayekian terms), which is, to quote another prominent Scotsman of the time, "the result of human action, but not the execution of any human design."<sup>24</sup>

Exhibiting intuitive insight, Smith assigned these two phenomena to different chapters, but he did not analyze the differences between them. Instead, he brought them under the same "heading" of DoL, leaving the task of distinction between the two concepts to future researchers.

## 6. DIVISION OF LABOR AND EXTENT OF THE MARKET

The third chapter dedicated to DoL is titled "That the Division of Labour is limited by the Extent of the Market." Its theoretical content is actually almost fully expressed in the heading and, in more detail, in its first paragraph, "As it is the power of exchanging that gives occasion to the division of labour, so the extent of this division must always be limited by the extent of that power, or, in other words, by the extent of the market. When the market is very small, no person can have

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<sup>22</sup> Smith, op. cit., p.14.

<sup>23</sup> Smith, op. cit., p.15.

<sup>24</sup> On the difference between manufacturing and societal DoL see Shchedrovitsky P., Kuznetsov Y., op. cit.; see also Groenewegen P. "Division of Labour," *The New Palgrave Dictionary of Economics. Second Edition.* – London: Palgrave Macmillan, 2008 (*The New Palgrave Dictionary of Economics Online.* Palgrave Macmillan. 27 April 2013. – URL: [http://82.179.249.32:2288/article?id=pde2008\\_D000176](http://82.179.249.32:2288/article?id=pde2008_D000176)> doi:10.1057/9780230226203.0401)



any encouragement to dedicate himself entirely to one employment, for want of the power to exchange all that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of the produce of other men's labour as he has occasion for."<sup>25</sup> The rest of the chapter mostly illustrates this point, providing various specific examples.

This idea is, once again, not new: it was expressed by Xenophon in ancient times and by authors of numerous treatises and pamphlets on trade and industry in the 17th–18th centuries.

However, it should be noted that the same logic can apply to any growth in labor productivity resulting from either DoL or other factors, such as new technical developments, discoveries of new natural resource sites, or an increase in capital availability. Regardless of what generates the opportunity to improve productivity, it cannot be realized if market size makes it impossible to sell additional goods. Indeed, DoL is one of the possible instances, but not the only one. Nevertheless, the popularity of Smith's work helped this link between DoL and extent of the market to become a commonplace.

No less interesting, however, is that in this case, as in all the previous ones, Smith "touched" an important topic without developing it. The special interrelationship of DoL with market size exists indeed and consists in the fact that the process of deepening DoL can in itself lead to market size expansion<sup>26</sup>. Scholars returned to the study of this phenomenon more thoroughly as late as in the 20th century, and the construction of its theory is still far from being complete. Allyn Young's article "Increasing Returns and Economic Progress" published in 1928 served as the key work in this respect. Commenting on Smith's book, Young wrote, "It is generally agreed that Adam Smith, when he suggested that the division of labour leads to inventions because workmen engaged in specialised routine operations come to see better ways of accomplishing the same results, missed the main point. The important thing, of course, is that with the division of labour a group of complex processes is transformed into a succession of simpler processes, some of which, at least, lend themselves to the use of machinery. In the use of machinery and the adoption of indirect processes there is a further division of labour, the economies of which are again limited by the extent of the market. It would be wasteful to make a hammer to drive a single nail; it would be better to use whatever awkward implement lies conveniently at hand. It would be wasteful to furnish a factory with an elaborate equipment of specially constructed jigs, gauges, lathes, drills, presses and conveyors to build a hundred automobiles; it would be better to rely mostly upon tools and machines of standard types, so as to make a relatively larger use of directly-applied and a relatively smaller use of indirectly-applied labour. Mr. Ford's methods would be absurdly uneconomical if his output were very small, and would be unprofitable even if his output were what many other manufacturers of automobiles would call large."<sup>27</sup> This way, Young completes the arguments made by Smith: utilitarian prerequisites for DoL turn out to be involved in complex dynamic relationships and cause-effect interrelations with market size. However, it took 150 years for this logical step to be made.

## 7. CONCLUSION

Based on all of the above, the following conclusions can be made. Adam Smith's exposition of the topic of DoL was not only unoriginal, but also not particularly profound or thoroughgoing. Presenting the matter in the way it is often done in modern works, namely as if *The Wealth of Nations* addressed basically everything that economic and social sciences could say about it, would be a big mistake.

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<sup>25</sup> Smith, op. cit., p.17.

<sup>26</sup> See Allyn A. Young, "Increasing Returns and Economic Progress," *The Economic Journal*, vol. 38, no. 152 (Dec., 1928), pp. 527-542; also Nicolas Kaldor, "The Irrelevance of Equilibrium Economics," *Economic Journal*, 1972, vol. 82, no. 328, p. 1237 – 1255.

<sup>27</sup> Allyn A. Young, op. cit., p.530.

The actual significance of the first three chapters of this book for economic and social sciences rather lies in the fact that Smith outlined with “dotted lines”, so to say, a number of key aspects which served as stimuli for and sources of inspiration for several subsequent generations of researchers dealing with issues related to DoL in one way or another. As such, *The Wealth of Nations*, indeed, played an important role in the history of thought, and continues to play it to this day.

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