



Minimum wage - a necessity or a superfluous thing?

Christopher Borkowski *

Cracow University of Economics

*Corresponding author E-mail: borkowskimy@gmail.com

Abstract

The article moves the issue of the minimum wage, its significance and the meaning of existence on the social level. There have been discussions over the issue over the years, with many supporters of the minimum wage as well as its opponents. The subject can be considered in many respects - macroeconomic, microeconomic, financial, but primarily social. The author presents, what impact has the existence of a minimum wage on a man, especially a young man who has just finished education and answers the questions: whether the discrepancies in earnings are a normal thing? Whether the minimum wage can affect the reduction of social stratification in earnings? It also shows the concept of fair wage and using modern methods of measuring human capital shows that it is possible to calculate the level of minimum wage for pay. In the next section, it compiles the calculated minimum wage levels in each country, together with the minimum wage that is in effect. By analyzing all the possibilities, the author concludes that the existence of a minimum wage is essential for the proper functioning of society as well as for the economy of a whole. However, it is a prerequisite to set it at the right level, not too low and not too high, which in theory is feasible, but in reality, practically impossible, but still cannot stop efforts and constantly update the value of the minimum wage to be as close as possible to the optimal value.

Keywords: Minimum Wage; Fair Wage; Work; Human Capital; Social Stratification.

1. Introduction

The problem of minimum wage has existed since time immemorial. Economists have for many years been debating the meaning of the existence of a minimum wage. There are a group of people who believes the existence of a minimum wage is necessary. The precursor of this group was Adam Smith, the founder of the classical economics school who in his work in 1778 stated that the lowest species of common labourers must everywhere earn at least double their own maintenance (Smith 1776). The mercantilists had a different opinion. They argued that the state should take care of low food prices to be able to pay as little as possible to the workers. Such a policy was supposed to guarantee the maintenance of low labor costs and higher competitiveness of goods on foreign markets. Moreover, the low pay was supposed to teach diligence and attach the working man to his place of work (Stankiewicz 2006). Objectively, one could argue that each of the parties was right and it was difficult to unequivocally judge which view was right at that time. However, a number of countries have, over time, supported the arguments for the existence of a minimum wage and introduced it. Some countries have done this before, like Australia, already in 1894, some it took a little more time (Poland - only 1956). The question is: In today's dynamic and changing times, does the institution of the minimum wage continue to perform the same functions as a few decades ago? If we still need it, how to set it up? Perhaps its existence, due to many factors resulting from broadly understood development, is no longer necessary? To answer this questions exhaustively, one must take into account all the factors - economic, demographic, social, political and more. In this article, I will focus primarily on the perception of the minimum wage on the part of society, and I will try to answer the question: Why, despite decades of great technological progress,

there is still a large stratification of earnings, and what impact does it have on us? The answers for these questions will bring us closer to the proper understanding of the minimum wage institution, to confirm its utility or to show its impact on our lives.

2. The essence of work

Considerations should begin with the answer for the question - why are we working? The answers may be many, but in terms of the economic dimension of our work, it is primarily about issues of broadly understood survival, that is, the acquisition of cash for which we will be able to purchase food, clothes, cleaners and other necessities for life. This is a logical sequence of things, provided that we assume that money can only come from work. This assumption, however, is not entirely correct, especially in today's times when reality was completely different from that of decades ago. You can make money by renting property, trading stocks and other securities, playing in the forex market and in many other ways, so in short: make money without putting too much of our work. Many people rightly point out that in all the above-mentioned methods. However, quite a bit of initial capital is needed in order for the profits to be sufficient to sustain and put aside money for a "peaceful life." Is it impossible to get such initial capital? Of course not. Assuming that we want to make money on renting a 2-room apartment in the center of Krakow, to buy it for our own, we need about 400000 PLN. Obtaining this amount will probably require at least 10 years of work or 3 years of work and a hypothetical loan, but it is possible. Our future revenues may not be too high, but it will be certain and long-term. We can also try our luck on the stock exchange and entrust our money to stockbrokers - here you do not need such a large amount, for the beginning is enough 100000 PLN. Possible gains will be greater than when renting an apartment, but the very way to make money riskier. The



above examples may and may be somewhat abstract, but they clearly show that this work is the basis for acquiring equity, which, when it reaches the right scale, will allow us not to work at all. Until then, we have to work to be able to maintain ourselves. Of course, it may happen that after the end of education, we will have substantial initial capital - the inherited inheritance from a very rich family, etc., but the vast majority of society is not in this situation, so in our deliberations, we omit this situation.

3. The value of the fair wage

As we have already established, however, times have changed only as apparent and in the matter of making money, most of us still have to go to work, we should look at the issue of remuneration. This issue is inherently linked with the issue of capital, which has been widely perceived over the years. The most relevant term for capital is to say that it is an abstract ability to perform work (Dobija 2003) and work is the transfer of that capital from the initial location to the work objects, measured in units of work. (Dobija 2003). As you can easily guess, not everyone has the same ability to do the job. A 23-year-old automotive mechanic with 2 years of experience and a completed vocational school has a much lower ability to work than a 45-year-old with a secondary education with more than 20 years of professional experience. The differences in capital clearly result in differences in the remuneration of these employees. To calculate for each of them a fair wage, use the tools used to measure and report on human capital. The very issue of measuring human capital began to develop only in the 1990s, and thus relatively late, given the importance to its role. Today is a matter of great importance, and the field is constantly evolving, and new tools are being developed. Capital itself is a function of many variables, which always have the following values: k - monthly maintenance costs, t - time elapsed variable, T - years of professional work and p - economic potential of potential growth. The simplest model of human capital presents the formula:

$$H(k, t, T, p) = K$$

Where: $H(k, t, T, p)$ - value of human capital; K - capitalized costs of living with the use of the p rate. However, this formula is extremely simplified and is now used in an improved form that takes into account the variables associated with professional education and work experience acquired during work. Its form can be described as follows [6]:

$$H(T, p) = (K + E) \cdot [1 + Q(T)]$$

Where: $H(T, p)$ - value of capital attributed to a person with experience T years of work; K - capitalized maintenance costs; E - capitalized education costs; $Q(T)$ - the growth factor of the experience at the end of T years. By omitting in the constant records p the above model can also be presented in an additive form:

$$H(T) = K + E + D(T)$$

Where: $D(T)$ means capital from experience; $T(T) = H(0) \cdot Q(T)$, where $D(0) = 0$. This model is more convenient for the analysis and shaping of wages.

When we have calculated the value of our capital, we calculate the appropriate level of annual remuneration. For this we use another formula:

$$W = H(T) \cdot u$$

Pay at $W = H(T) \cdot u$ if u (8%) guarantees the retention of human capital at its initial level because it exceeds the percentage of natural, spontaneous and random dispersion of human capital whose average size, as shown by research (Kozioł 2010, Renkas 2012), is 8% percent. If $u > 8\%$ the remuneration also includes the bonus

remuneration component, which not only allows the maintenance of human capital but also its development.

4. The fair wage and actual wage

Knowing at least how much we should earn to make our pay can be called fair, we can compare the value we calculate with the value of the minimum wage in the country in which we live and work. The results of our comparison will not be similar, as the following table show, the discrepancies may be quite large:

Table 1: Minimum Wages in the USA, Poland and Ukraine in 2015 (Renkas 2016)

Minimum wage	USA (t = 17)	Polska (t = 18)	Ukraina (t = 18)
Monthly labor costs (8% · H(T, p)/12)	1376,0 \$	2577,0 zł	3649,0 UAH
Statutory minimum wage level	1355,0 \$	2100,0 zł	1462,0 UAH
Percentage compliance	99%	82%	40%

Values were calculated for a person entering the labor market - a 17-year-old from the US and his older colleagues from Poland and Ukraine, so the factor of experience was omitted. This group of people was specially selected for the study because the minimum wage is primarily intended to allow for decent earnings for young people who, as I mentioned earlier, do not have initial capital and work (not counting family assistance) is the only source of income that should exist at the normal, average level. So why are so many disproportions? Factors describing such a state of affairs can be quite a number, and it is difficult to identify them all in a given case. In the case of Ukraine, the low level of the minimum wage has a strong influence on the poor condition of the Ukrainian economy. The monthly absolute cost of labor in Ukraine is very low, if you compare it to the US, you could say that it is a small fraction of it. However, comparatively, to the minimum wage set by the government of Ukraine, it turns out that they are very large or, by the weak state of the economy, the minimum wage is fixed at too low a level. Of course, you can ask the question - why the Ukrainian government will not increase the minimum wage twice? Unfortunately, this is not so easy because, as it is with macroeconomic activities, it would have, in addition to its advantages, also disadvantages. One of the biggest drawbacks that would surely occur with such a sharp rise in minimum wages is the increase in unemployment. This may seem unnatural, but the economy is a system of connected vessels, and every violent action often brings negative consequences. Duplication of the minimum wage for a trader means doubling the labor costs of the employees employed by him. In such a situation, he will have to choose between optimizing his or her work in terms of labor costs, often by reducing the number of posts, increasing the gray area by hiring workers without a contract or even by shutting down their operations, because in underdeveloped economies such as Ukraine, human labor costs are controversial. percentage of operating costs, unlike highly-developed economies. The effect would be quite the opposite of the intended one, and by the rise of the gray zone, the state itself, which is now in a very poor situation, would suffer. Depending on the legal regulations (e.g. in Poland), the entrepreneur has yet another possibility - to employ as the basis of civil-law contracts, ie temporary contract, where the employee is not an employee in the light of the law, and the contractor is not obliged to do so. Labor law, and also the level of minimum wage, if the government has not established its minimum value for this type of contracts (in Poland, it is only from 1 January 2017).

5. The actual wage is less than the fair wage – effects of this state of affairs

18-year-old Ukrainian is in a very unfavorable situation. Inadequacy of its basic level of pay makes it impossible to retain individual human capital. This means that while working in Ukraine and earning at the level of minimum wage established there, it will not develop and its capital will not grow. No development will be reflected in the lack of life satisfaction. According to the United Nations World Happiness Report for 2014-2016, which determines the level of prosperity and satisfaction of life, Ukraine ranks 132nd out of 155 countries surveyed. For comparison - Poland ranks 46th and United States high 14th. Everybody strives for prosperity and satisfaction in life, so the Ukrainians have been emigrating to the West of Europe for many years in search of paid work at a level that will allow them to live on a decent level. One person is often emigrated, most often the head to the family - a father who earned in Poland or another European country sends his family in Ukraine. Interestingly, similar situation also took place in Poland, especially in 2004-2008, when it belonged to developing countries, not developed as it is now, and accession to the European Union and the opening of opportunities to leave the country to emigrate to the West large-scale employment. The fact that it is very unfavorable for social reasons does not need to be persuaded. There is no reason in Poland that the term "eurosierota", which is defined as a child who's at least one parent left for work abroad, and how often psychologists add, is more likely to have children with learning disabilities, addicts and are aggressive (Wiśniewski 2006). Mass emigration is also damaging in macroeconomic terms, as the state loses many workers who leave the country only because of incomes incompatible with their human capital. Most are physical workers who earn a minimum wage. In another country, their earnings will also be at the minimum wage level, but it will be a more developed country where the minimum wage ensures decent living and satisfying their needs. This phenomenon has been taking place in Poland for several years. Unemployment in Poland is currently at a record low - 6.8% in September 2017, but in sectors where the need for manual workers is high, workers are in short supply. This gap has been filled for several years by workers coming from Ukraine, who comes to Poland for a better life, just like Poles who travel to the west of Europe.

6. The absence of minimum wage

The solution, which consists in the complete lack of regulation by the state of the minimum wage level, seems unreasonable on the basis of the above conclusions, yet in the world there are states (though there are few) that have not decided on such a step. As for the European Union, only six of them - Denmark, Italy, Austria, Cyprus, Sweden and Finland - decided to introduce a minimum wage, introduced Germany last year. Is there any connection between these 6 countries? Yes, these countries are characterized by a highly developed social system and high taxes imposed on labor. It can therefore be inferred that the minimum wage function in these countries is fulfilled because citizens are not at risk of poverty. Is this a better solution than the minimum wage? Many experts have doubts as an extended social system, combined with high taxation on the part of the less motivated, may make them prefer not to work. This, on the basis of previous considerations, will result in a lack of capital growth from experience, not to mention the social consequences. The absence of a minimum wage without an extensive social system is not a good solution as it would lead to serious labor market disruption. In each country there are regions where unemployment is higher than average. Removing the minimum wage would create a very strong employer market in these regions, which would set the level of wages at the appropriate level, i.e. the lowest, which, in practice, would be less than the subsistence level under unfavorable market conditions. Minimum wage eliminates the possibility of this occurrence.

Moreover, the minimum wage, and even more, its growth has a positive effect on the level of the Gini index, thus reducing the stratification of the population in terms of income.

7. The minimum wage at the right level guarantee the welfare

The analysis leads to the conclusion that the minimum wage should exist, but additionally be set at the appropriate, not too low but not too high. How can we understand the prosperity of this solution? Everything comes from a simple economy, and even its roots. The increase in the income of the population leads to higher consumption, which in turn leads to the economic growth of the state in which they live, with *ceteris paribus*. Dependency is quite simple, but incredibly important. Another advantage of a well-established minimum wage is the reduction of poverty - from the point of view of society, we will live among the happiest people, from the point of view of the state - we will reduce the costs associated with the fight against poverty. Another plus of the minimum wage from the point of view of the state is the increase in tax revenue, but at this point it should be remembered that the minimum wage level is not set too high, because then the effect will be the opposite - will develop a gray zone. One cannot forget the key fact that a poorly paid employee is a bad employee, where poorly in our deliberations will mean wickedness, so below the minimum wage he owes. It all comes down to fixing a minimum wage at the right level, which is not a simple thing, because the number of variables on which it is based is so large and so uncertain about its value that in practice it is often impossible. It is often forgotten that within a single country there are high-growth regions - such as capitals where living costs are high, and poor regions where there is no need for such large livelihoods. Ideally, the minimum wage should be different for each region, because the same amount will have a different purchasing power in the capital and another in the province. In practice, few countries choose to differentiate between minimum wages according to the region - such a step has been decided by the United States, where in each state the minimum wage is governed by local state law, but cannot be lower than the country-wide minimum.

8. Conclusions

The answer to the question posed is, yes, the minimum wage is a necessity, which is essential for the development of the worker, economic growth and a positive influence on many other aspects, provided that it is set at the right level - not too low but not too high. Human capital measurement tools allow you to accurately calculate the fair remuneration that a person should receive, taking into account many factors. For the purposes of determining the minimum wage level, however, we use simplified tools for measuring capital, since, as a matter of principle, the minimum wage is primarily directed towards people who are just entering the labor market, have no experience or initial capital, work is their main source of income, and therefore its The height should be at the level that allows them to exist at an average level. Alas, the level of the minimum wage is, unfortunately, also linked to the level of economic development of the country - the more developed a country is, the easier it is to fix the minimum wage at the optimum level without the negative effects of the gray economy when the minimum wage is too high or the emigration can occur. When the minimum wage does not guarantee the preservation of human capital at its initial level, ie when it enters the labor market. In practice, it is virtually impossible to establish a minimum wage at an optimum level, especially when it comes to annual change, which must take into account the current level of economic development in the country and the number of events and indicators that are forecasted in the future. For this reason, there will always be a deviation from the ideal level - employers will find it to be too high and have to pay too much for their employment, and

employees will want to grow from year to year, regardless of economic growth or other. Indicators the mere fact of a minimum wage is, however, unquestionable, it is only necessary to focus on the most appropriate way of determining it in relation to reality, which, with the current forecasting and measuring tools, will become easier each year.

References

- [1] Allegreto S., Dube A., Reich M. (2011). Do minimum wages really reduce teen employment? Accounting for heterogeneity and selectivity in state panel, *Industrial Relations-Journal of Economy and Society*, no. 2, p. 205-240.
- [2] Baranowska-Rataj, A., & Magda, I. (2015). The impact of the minimum wage on job separations and working hours among young people in Poland, *Institute of Statistics and Demography of Warsaw School of Economics Working Paper no. 45*.
- [3] Begg D., Fischer S., Dornbusch R., (1993), *Ekonomia*, PWE, Warszawa.
- [4] Boeri T., (2011). *Ekonomia niedoskonałych rynków pracy*, Wolters Kluwer, Warszawa.
- [5] Cieślak L., Dobija M. (2007). Teoretyczne podstawy rachunkowości kapitału ludzkiego (Theoretical ground of the human capital measurement), *Zeszyty Naukowe nr 735, Akademia Ekonomiczna w Krakowie*. <https://www.doi.org/10.4236/me.2013.44033>.
- [6] Dobija D. (2003). Pomiar i sprawozdawczość kapitału intelektualnego przedsiębiorstwa, *Wyższa Szkoła Przedsiębiorczości i Zarządzania im. L. Koźmińskiego, Warszawa*.
- [7] Dobija M., Kurek B. (2013), *Towards Scientific Economics, Modern Economy*, vol. 4, no. 4, s. 293-304, <https://doi.org/10.4236/me.2013.44033>.
- [8] Fic M. (2010). Wpływ płacy minimalnej na zatrudnienie, „*Annales. Etyka w życiu gospodarczym*”, vol. 13, nr 1, p. 201-211.
- [9] Kamińska A., Lewandowski P. (2015). The effects of minimum wage on a labour market with high temporary employment, *IBS Working Paper 07/2015*.
- [10] Kozioł W. (2010), *Kształtowanie wynagrodzeń podstawowych nauczycieli akademickich na podstawie pomiaru kapitału ludzkiego i intelektualnego [w:] Nierówności społeczne a wzrost gospodarczy. Spójność społeczno-ekonomiczna a modernizacja gospodarki*, z. nr 16, red. M.G. Woźniak, Wydawnictwo Uniwersytetu Rzeszowskiego, Rzeszów.
- [11] Kulisa B., Sierpińska M. (2016). Wzrost gospodarczy a płaca minimalna w Polsce, *Finanse, Rynki Finansowe, Ubezpieczenia nr 4/2016 (82) część 1*, p. 759-768.
- [12] Majchrowska, A., Zólkiewski Z. (2012). The impact of minimum wage on employment in Poland. *Investigaciones Regionales* 24, p. 211-239.
- [13] Phelps E.S. (2013). *Płaca za pracę*, Kurhaus, Warszawa.
- [14] Renkas J. (2016). *Ekonomia pracy. Teoria godziwych wynagrodzeń*, *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, nr 439, p. 284-301. <https://www.doi.org/10.15611/pn.2016.439.25>.
- [15] Renkas J. (2012). Empiryczny test modelu kapitału ludzkiego i minimalnych wynagrodzeń, *Nierówności społeczne a wzrost gospodarczy*, nr 24, p. 280-291.
- [16] Renkas J. (2016). Nierówności płacowe a stała ekonomiczna potencjalnego wzrostu, *Nierówności społeczne a wzrost gospodarczy*, nr 47, p. 466-480.
- [17] Ruzik, A. (2007). Minimalne wynagrodzenie - analiza wpływu na zatrudnienie w Polsce. *Polityka Społeczna* 1/2007, p. 5-9.
- [18] Smith A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*, London: W. Strahan. <https://doi.org/10.1093/oseo/instance.00043218>.
- [19] Stankiewicz W. (2006). *Historia myśli ekonomicznej*. Polskie Wydawnictwo Ekonomiczne, Warszawa, p.73-89.
- [20] Stawarczyk F.M. (2014). Płaca minimalna a zatrudnienie – teoria i praktyka, *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, nr 347, p. 409-418.
- [21] Wiśniewski J. (2006). „Emigrować i wracać”. *Migracje zarobkowe Polaków po 1 maja 2004*, Warszawa.
- [22] Retrieved from: <https://stat.gov.pl/obszary-tematyczne/rynek-pracy/bezrobocie-rejestrowane/stopa-bezrobocia-w-latach-1990-2017,4,1.html?pdf=1>.
- [23] Retrieved from: <http://worldhappiness.report/wp-content/uploads/sites/2/2017/03/HR17-Ch1.pdf>.