



THE
FUTURE
OF
WORK



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The Unseen Dimension of Technology for the Future of Work

Matthias Schäfer

Summary

The digital revolution will have unprecedented effects on the future of labour. The new technology will allow self-learning artificial intelligence; machines will be a substitute for, instead of a complement to human work. This will have disruptive consequences for human work. As always, old jobs will diminish and new jobs will occur; but human work will not end. It will prevail when markets, institutions and individuals adapt to the new technology-driven work environment. Education systems, labour market institutions, regulators, businesses and social partners are the key players in this process.

Keywords

digitalization, technology, future of work, human-machine-relation

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Introduction

Technological disruption in the age of digital transformation will have a significant influence on the future of work and labour markets. The new technology will allow for the emergence of self-learning artificial intelligence (AI). Machines will be a substitute for, instead of complement to human work. This will have disruptive consequences for human work.

The first chapter of this paper will analyse the general trends of the technological revolution we are going through, with special attention paid to the labour market. In the second chapter, the possible consequences for jobs and skills resulting from technological change will be diagnosed, before political recommendations are sketched out in the third chapter.

1.

General trends of the technological revolution

The technological trends we are currently in the midst of are, in general, described as being the fourth industrial revolution. Some of the buzzwords used are robotics, big data, and AI. To clarify this complex situation, the first part of this chapter will embed the current development in a historical context; while the second part will analyse this new technological dimension of the so called, digital transformation.

1.1. The historical approach

Economic history knows several industrial revolutions.¹ The first Industrial Revolution began in the early nineteenth century using the power of steam and water to drastically lift the productivity of human (physical) work. Businesses and jobs were created in heavy industries, iron and coal, the railways, and textiles. The second industrial revolution began almost a hundred years later with electricity as its key driver. Mass industrial production led to productivity gains, telecommunication, and mobility, while the creation of business giants opened the way to individualized mass consumption. The third industrial revolution followed 70 years later with

¹ See e.g. K. Schwab, 'The Forth Industrial Revolution' (2016) for the whole context.

information technology and the use of computing in industry and, with personal computers, at home. The current and forth industrial revolution only took another thirty years to get started. Digital transformation is melting together technological and human capacities in an unprecedented way – self-learning algorithms, self-driving cars, human-machine inter-connection, and big data analytics are the driving forces of this new era.

What do all these revolutions have in common? They established new ways of combining human labour and technological capital that has lifted productivity, wealth, and living standards. All have been disruptive. They made jobs and businesses redundant, created structural changes in production, awoke in new consumer the desire for goods, and led markets to a more capital intensive production, higher income, better living standards and more social security. Following this assessment, one could argue that the fourth revolution is just one more revolution and the consequences for economics, technology and social affairs can be derived from the historical experiences of the first three revolutions.

But this conclusion could be too simple to meet the new dimensions of this forth industrial revolution; for example, quantum computing in terms of its sheer pervasiveness, but also of the quality of AI oriented data and computing analysis. As Brynjolfsson and McAfee argue,² it would be more appropriate to compare them as the first and the second machine age, which means that we can sum up the first three industrial revolutions as the First Machine Age. This age is characterized by power systems that augmented physical human muscle power but intelligence and decision making were exclusively that of the human being who controlled the machines: humans and machines were complementary. In the Second Machine Age, AI is taking over decisions that were formerly human decisions. From

² E. Brynjolfsson et al., 'The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies' (2014).

an economical and a societal point of view, the relation between human and machine will become completely new – they will start becoming substitutes or competitors. The machines are taking over both self and autonomous regulated decisions, and the speed of their decision making is rising. Concerning the economic market order, the clear separation between producers and consumers will decline; producers will pay more attention to consumers' needs and the so called 'prosumers' will become a new market player with special interest for regulators and civil society institutions. Social partnerships, trade unions and employers' associations that rely on the historical conflicts between labour side and the owner of capital side, will see new ways of cooperation and negotiation.

All this has a serious impact on the future of work and the expectations regarding products and services and by that, also direct consequences for jobs, skills, education and social security systems. This will be picked up in chapter 2.

1.2. The technological dimension of the forth industrial revolution (see e.g. Friedman 2016)

The key factor that has made this Second Machine Age possible is the enormous growth in computing power, known since 1965 as *Moore's Law*, which states that computing processing power doubles every year. The legend of the king and the chess board illustrates this trend. The king agreed to place a single grain on the first square of a chess board and then double it for each consecutive square of the chessboard; this represents constant acceleration and exponential growth. As long as we stay on the first row of the board, human imagination can visualise exponential growth as linear growth; but when you keep doubling something not only for eight squares but for the first half of the chessboard (which means 32 squares), you start to get really big numbers. These numbers are not conceivable by the human brain, but are no problem for computing power.

X	0	1	2	3	4	5	6	7	8
LINEAR (2^x)	0(1)	2	4	6	8	10	12	14	16
EXPONENTIAL (2^x)	1	2	4	8	16	32	64	128	256

Table 1.

Linear and exponential growth

Brynjolfsson and McAfee³ have supposed that computing power has just entered the second half of the chess board, and even though it is still at its beginning, the doubling has already become large and rapid. The novelty of this Second Machine Age is that both the acceleration and the rate of technological change increase to higher speeds simultaneously. What we are witnessing here is the human ability to adapt to change is not able to keep up with the pace of change of new technologies. Humans are becoming 'dislocated' not only technologically but also in economic and societal terms.

Dislocations have been part of all industrial revolutions. But a simple look at the periods between these revolutions reminds us that people have less time to catch up, to subdue the consequences of change, and to reform institutions and systems to suit these new eras. Adapting the systems was the required precondition for technological change making mankind richer and to strengthened insight and trust so that societies are able to find appropriate solutions.

Nowadays, the periods for reshaping and reforming our systems are becoming shorter and this leads to a 'cultural angst'. Everyone has a smartphone, but no real understanding of how it functions or the technology behind it, yet the physical device and its applications are only at the very

³ E. Brynjolfsson et al., 'The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies' (2014).

beginning of future possibilities, as we are still only on the first half of the chessboard.

The real change will begin when entering the second half and business models and societal cohesion start to change. And in the case of political and social institutions, the training systems for the labour market and big corporations will not be able to meet this challenge; the digital divide can then lead to a new dimension of 'disruption', which establishes completely new economic powerhouses in new parts of the world. For some, this will be a new golden age, for others, it may be the end of their golden age.

The unseen combination⁴ of (1) integrated circuits on microchips, (2) memory units to store information, (3) networks that help to enhance communication, (4) software applications that provide a direct link to consumers' needs, and (5) sensor capacity that allows artificial intelligence to analyse most things that, for a long time, were exclusive only to human senses – this is the new potential that rocks and hits directly at the future of labour and jobs.

FIRST MACHINE AGE	SECOND MACHINE AGE
COMPLEMENTARY	SUBSTITUTION
LINEAR	EXPONENTIAL
PHYSICAL	ARTIFICIAL
HIERARCHY	COORDINATION
CONSTANT VELOCITY	CONSTANT ACCELERATION
HUMAN-LEARNING	MACHINE-SELF-LEARNING

Table 2.

Human–Machine relations at a glance

⁴ See Friedman, T., 'Thank you for being late' (2016).

2.

Technological change and the consequences for jobs and the workforce

In previous industrial revolutions, people always feared that their jobs would be taken and high unemployment or 'the end of work' would occur. None of that came true. For each technological shift, new jobs were created, jobs that were more productive and better paid, that in turn started to create more jobs in the service sector, even when these jobs had smaller salaries. Politics, institutions, business and social partners found ways of tackling the challenges of the three industrial revolutions.

2.1. Factors of technological change

But as mentioned in chapter 1, as we enter the Second Machine Age, the experiences and historical developments of the past cannot be extrapolated into the future. The Oxford Study by Frey and Osborne⁵ argues that computing power and the potential of automation will eliminate almost half of current jobs in the US. In Germany, the ING Diba Bank⁶ even foresees a loss of 59 % in jobs by the year 2030. They analysed the highest potential

⁵ Frey C. et al., 'The future of unemployment: How susceptible are jobs to computerization?' (2013).

⁶ ING DiBa Economic Research, 'Die Roboter kommen – Folgen der Automatisierung für den deutschen Arbeitsmarkt' (2017).

changes in workforce due to the technological progress in robotics, IoT, and AI. **Table 3** shows the driving factors behind the expected job losses and technological unemployment – trends such as AI, Robotics and AI all play a major role.

FACTORS AFFECTING TECHNOLOGICAL UNEMPLOYMENT (FROM 0, SMALL IMPACT, TO 10, HIGH IMPACT)	
NANOTECHNOLOGY	5.2
DRONES	5.4
3D AND 4D PRINTING	6.1
EDUCATION AND LEARNING	6.4
AI	6.8
TECHNOLOGICAL SYNERGY	6.9
ROBOTICS	7.5

Table 3.

Factors affecting technological unemployment (Source: Oxford University)

Following Frey and Osborne,⁷ the technological dimension will have a much broader impact on the labour market than previous technological revolutions; not only will jobs in capital-intensive manufacturing be affected, but also the labour intensive service sector jobs. Their second relevant prediction takes into account that not only will manual and physical areas be affected, but also cognitive activities. Thus, the relevant item in rela-

⁷ Frey C. et al., 'The future of unemployment: How susceptible are jobs to computerization?' (2013).

tion to the consequences for the labour market will be the repeatability of human work.

What is quite surprising, as Robert Gordon argues,⁸ is the shrinking productivity growth in all highly developed industrial economies, despite all the technological change we have seen in the last decade. For reasons that cannot be discussed here, the impact of this is of great relevance for the macroeconomic perspective of labour markets. Wages grow according to labour productivity gains, and welfare and living standards as a whole depend on the productivity growth of our economies, especially in aging and shrinking societies.

One possible explanation, among several, comes from Brynjolfsson and McAfee, which sees the reduction in productivity as a temporary phenomenon. As the digital revolution has only just begun, we should see dramatic productivity effects in the Second Machine Age phase now occurring. Only a complete and radical reorganization of our production schemes will raise productivity. The first phase of the digital transformation is almost complete; for example, new business models for e-commerce, financial sectors, and consumers electronics. These have changed the way consumers behave, but they have not drastically changed the production chains or in consequence, the labour markets. The next generation of technological progress will change this. The routine-based jobs will disappear due to software automation and the ability of computers to analyse patterns in the data of big stores.

2.2. Jobs and skills after the technological revolution

Taking these trends into account, two general perspectives can be exposed: one looks into the future of new jobs and skills that will be of great

⁸ Gordon, R. J., 'The Rise and Fall of American Growth' (2016).

relevance in the Second Machine Age; the other reflects on the areas of current human work that will be resilient to automation, even in the long run, and which will be enhanced or augmented by technology.

2.2.1. Job creation and destruction

Data scientist, web developer, user experience designer – these are no longer niches for future jobs. Coding as a skill and coding-schools as institutions will become a synonym for the new digital workforce. They will facilitate capabilities that fulfil employers' needs.

This trend can already be tracked by analysing job vacancies. Although, in absolute terms, the number of new job offers does not yet exceed classical jobs, these jobs already represent by far the biggest relative increase in job opportunities. Job offers linked to fintech, e-Health and AI more than doubled in the last 12 months in Germany (see Table 4).

These numbers reflect the second wave of digital transformation, that is, job offers shifting from the previously known consumer oriented products and services of the first wave (e.g. e-commerce, telecommunications and media) towards a change to producers and their value chains (e.g. automotive, machinery, banking, insurance, logistics) that characterize the second wave. This means that trends like IoT (or Industry 4.0) as well as AR and VR are beginning to change the way we create, construct, and build.

INCREASE (IN %) IN JOB OFFERS Q1 2017 COMPARED TO Q1 2016, FOR GERMANY	
FINTECH	138
E-HEALTH	135
AI	119
AR	94
IOT	71
3DPRINTING	68
DIGITAL TRANSFORMATION	60
CLOUD-COMPUTING	49
DIGITAL CONSULTANT	41
ROBOTICS	31
BIG DATA	30
E-COMMERCE	13
ONLINE MEDIA	10
DIGITAL PROJECT MANAGEMENT	9
ONLINE MARKETING	-0.1

Table 4.

Digital job offers (Source: Index Group⁹)

By transferring the new labour demand to the labour offer side, new skills and qualifications become dominant (see Table 5). Programming and data sciences are expected to increase by 50% or more in their relevance

⁹ Index Gruppe, 'IT-Jobreport' (2017).

for future jobs, in contrast, manual physical tasks and human computer interaction sees a significant reduction.

WHICH NEW QUALIFICATIONS MATTER IN THE FUTURE?			
	LESS AND SIGNIFICANTLY LESS	UNCHANGED	MORE AND SIGNIFICANTLY MORE
DATA MANAGEMENT	9	40	51
DATA SECURITY	8	41	50
SOFTWARE DEVELOPMENT	10	40	50
PROGRAMMING OF MACHINES AND SYSTEMS	10	41	49
DATA SCIENCES	10	42	48
HUMAN COMPUTER INTERACTION	16	46	39
CONTROL OF MACHINES	33	47	20
MANUAL TASKS	47	44	9

Table 5.

The future of work and qualifications (Source: Boston Consulting Group¹⁰)

The current wave of digital transformation has a deep impact, not only on low-skilled workers, but also on skilled middle income craftsmen. Following the BCG study, it was found that almost 86 % of the activities of chemical assistants could be executed by digital assistants; while specialists in metal structures and construction will see 61% of their activities taken over by digital colleagues. Repetitive tasks on assembly lines, drivers of trucks and taxis as well as fork lifts – all of these jobs can be substituted

¹⁰ Boston Consulting Group (BCG): 'Tapping into the Transformative Power of Service 4.0' (2016).

with automation and robotics. Routine information processing tasks will also be under pressure: bookkeepers, travel agents, people in legal aid. Call centres will be, step by step, replaced by question-answering virtual assistants with automated algorithms and speech control.

Table 6 shows the wide range of jobs that will be affected.

PROBABILITY OF JOBS/TASKS BEING ELIMINATED BY COMPUTERS OR ROBOTS WITHIN THE NEXT TWENTY YEARS	
TAX ACCOUNTANT	98
BOOKKEEPER, AUDITOR	94
REAL ESTATE AGENT	86
PILOT	55
ECONOMIST	43
ACTOR/ACTRESS	37
FIREFIGHTER	17
CHEMICAL ENGINEER	2
HUMAN RESOURCES MANAGER	0,55
DENTIST	0,004

Table 6.

Digital colleagues (Source: Boston Consulting Group¹¹)

The potential for robotics within the value chains of industrial production and IoT is of great relevance. According to IFR World Robotics,¹² the num-

¹¹ Boston Consulting Group (BCG), 'Tapping into the Transformative Power of Service 4.0' (2016).

¹² International Federation of Robotics (IFR), 'World Robotics Report' (2016).

ber of robots that will be sold between 2016 and 2019, will dramatically increase; robots in industrial manufacturing will rise by 550%, service robots for professional use by 800%, and for personal use by 775%. The number of service robots for personal use will go from 5.4 million in 2015 to 41.8 million between 2016 and 2019.

A well-known type of robot in manufacturing, the so called 'cobots', work together with workers and augment their physical abilities. The new generation of robots will, in contrast to the first generation, enhance human work by means of AI or big data analytics. 'Baxter', a humanoid robotic torso with hands and an LED face, can be retrained to learn and to take over new jobs that he/it was not initially programmed for. So he will go from being a substitute for purely repetitive jobs to as yet unautomated jobs. Kiva Systems delivers knee-high robots that help lift products in logistics and could also be utilized in health care to carry or set up patients in beds.

Robots will become better co-workers, not exclusively in the better-adjusted production of things, but in personal services and areas such as health and care.

2.2.2. Resilience and enhancement of human jobs

Despite all the new possibilities for integrating robots into human-machine procedures, there is no reason for pessimism, nor the idea that human work and the meaning of human intelligence and creativity are no longer needed in the world of labour. Robots capacities are, as yet, far away from being able to replace all human competences. In contrast, the use of robotics and technology also has a positive impact on the human work that we are familiar with: on the one hand, robotics will enhance and improve the quality and the productivity of human labour; while on the other, technological progress will crystallize the range of human abilities that robots will not be able to take over.

There are three different types of abilities, which can be described and summed up as 'manual', 'creative' and 'emotional/interpersonal'.

The manual abilities in the service sector, even for often low-paid jobs such as, for example, waiters, require a complex ability in managing guests, receiving commands, cleaning tables and handling trays with dishes and glasses – tasks that humans combine easily, but robots fail badly at. This condition is known as 'Moravec's' paradox, according to which robots find jobs easy that humans do not, and vice versa. The same can be predicted for cooks, gardeners or even police patrol officers. The negative side of this is that these jobs will most likely not be better paid because of this, as no special skills are needed that would distinguish human workers from each other. The same phenomenon happens at the other end of the salary ladder. Dentists, for example, often work in a very physically manual way but the oral complexity within the human mouth is not appropriate for dentist robots.

The next category of future resilient jobs is described by a combination of expertise and creativity. Robots will be able to write articles in newspapers, but they are less able in terms of novels. The same goes for songwriters and painters. Still, technology also means a stronger impulse to differentiate capabilities and salaries in this category. Lawyers that are able to formulate conclusive new pleas or researchers who reveal new scientific knowledge will be at the forefront; whereas lawyers that only reproduce routine juridical results will be replaced by big data analytics.

Finally, jobs that create emotional or interpersonal added value for others will have an optimistic forecast. Management and leadership, motivating people, or caring about others in, for example, a kindergarten are personal, emotional, and communicative skills that will rarely be taken over by robots. In addition, even though automated driving and piloting is already technologically feasible, passengers will, as yet, still have a preference for a human pilot or flight attendant. The tremendous impact of big data

analytics on the skilled workforce can be also be seen in medicine. Doctors and nurses will profit from IBM's supercomputer, 'Watson's' ability to scan and analyse worldwide patterns for even very rare diseases, but the ability to bring the results to patients and the common development of an appropriate therapy, is a highly emotional and inter-human skill. Robots can also improve in this area, but these abilities are not expected in the short term.

A final remark should be given on the predictable consequences of a better combination of these future proofed, resilient human abilities with an enhanced connection to machines. Brynjolfsson and McAfee¹³ elaborate on the idea that people will cooperate instead of compete with machines, especially in the area of middle-skilled jobs. For example, in the above mentioned creative sector; not only will these jobs not be replaced by computers, but digital transformation will open up much broader access to markets and customers for 'creative people'. It adds new value. Or, in another example, in the field of health care and emotional human inter-connection, AR (augmented reality) glasses will help patients to carry out their psychotherapy virtually; therapists and health care insurance will profit from this and become more efficient with the timetables used, and budgets spent on psychotherapy. AR will become very helpful in teaching people in a precise yet flexible way. As software becomes more detailed, deeper and narrower, the humans that deal with its results will bring in a broad experience based set of knowledge and skills.

¹³ E. Brynjolfsson et al., 'The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies' (2014).

3.

Policy recommendations to meet the challenge of the Second Machine Age

Technological changes have a swift impact on the needs and wishes of consumers. Open markets translate these needs back to producers, who adjust their value chains and workforces accordingly. The current technological dimension of this change seems to be unprecedented, so the consequences for businesses and jobs are often named 'disruptive'. For example, the German carmaker, Audi, abolished their assembly line (invented by Henry Ford) and replaced it with autonomous transport robots that guide the chassis to 200 'isles of assembly', and hopes for productivity gains of 20%.¹⁴ Or take BMW and Volkswagen who have hired more IT specialists than mechanical engineers this year for autonomous driving and self-learning car manufacturing.

In the First Machine Age, a vast range of jobs and tasks were destroyed. Often, even bright thinkers (like John Maynard Keynes in 1931) predicted an era of technological unemployment. But history tells that this never came true. New and even better paid jobs were created, and living standards and social protection rose in a steady manner in industrialized countries due to efficiency and productivity gains that were especially owed to technological progress and changes in value chains and production. This process of creative destruction was the driving force for innovation and wealth creation.

¹⁴ Schroeder, P. 'Smart Factories' (2016).

On the other hand we have to recognize that what happened in the past is not proof that the same thing will happen in the future, especially as we have entered the Second Machine Age and the second wave of digital transformation. Jobs, professions, even whole branches of employment will disappear, and no one can guarantee that a worker who lost their job would find a new one directly, and if they did, if it would be for lower pay and smaller social protection.

Nevertheless, technological unemployment must not be the favoured prediction for the future of our jobs and our workforce. Our political and societal institutions can cope with the challenges when they underline a mix of policies and regulations that,

- help people become and stay creative (education),
- strengthen (labour and product) markets in order for them to be workable and adaptable (market order), and
- provides socially inclusive institutions (social protection and welfare).

Education

The most efficient policy for narrowing the gap between winners and losers of technological change is education. Education that is appropriate to the Second Machine Age has to be rethought from scratch. School subjects like coding and technology should already be getting more attention for pupils.

The World Economic Forum¹⁵ estimates that 65% of school children will end up in jobs that have not been created yet. Thomas Frey¹⁶ from the

¹⁵ World Economic Forum (WEF), 'The Future of Jobs, Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution' (2016).

¹⁶ Frey, T., 'Cracking the Code for the Future of Education' (2016).

DaVinci Institute says that from 2030, young professionals will have to change their careers on average four to six times, which means not only changing their employer, but the profession in which they are working. One underestimated doctrine of the new era is that everything that can be digitalized will be digitalized. This is hard to imagine when it comes to the human brain, but it is better to be prepared for it.

This means that flexibility is fundamental to life-long-learning, and that re-skilling arrangements will be important. Career training schemes will become shorter and the transition between professions and careers will have to be facilitated. The focus will shift away from a strict distinction between the periods of education and formation for 25 or 30 years followed by a period of constant and decent work until the age of 65 or 70, crowned by retirement and pension. Changing professions five times means that life-long-learning and executive education will become more important, sabbaticals can therefore be invested. Re-skilling is a complex task, imagine the classical engineer at Volkswagen or BMW, the specialists in fuel injection that have to be trained for sensor computing or big data analytics.

The successful German system of vocational training as the backbone of German 'Mittelstand' has to be reinvented as well. Its added value is the bridge between theory and practice. In the Second Machine Age, professionals will be able to learn skills that are tricky for computers and the best way to do so is in the day to day practice of vocational training.

Adaptable (labour) market order

Only the adaptability of markets will create the opportunity to meet the digital transition and to counter unemployment, and the social and digital divide. To be adaptable, markets and businesses need openness, flexibility and a level of regulation that strengthens the transitions between jobs and professions.

Start-ups will challenge big corporations, market power could dramatically change, so regulators have to find new ways to safeguard workable competition and a level of rules that allows business to keep their adaptability and competitiveness.

Freelancers and crowd workers, currently representing less than 10% of the workforce, will become more important. Already, because of the need to change profession, the lifelong fulltime job is diminishing. Even though there are no signs that this will become the dominant category for our workforces, self-employment and self-entrepreneurship will rise. As social protection is often linked to dependent employment, freelancers have to pay more attention to their own social safety and by the same token the welfare state has less direct influence. Being self-employed is not a negative; highly-skilled people with capabilities that are scarce can profit highly when they sell these skills to a bunch of partners and not only to one special employer.

Concerning an appropriate market order for the Second Machine Age, the whole set of regulations has to be reviewed. This means antitrust and monopoly regulation, consumer protection and consumer rights, data protection and data property, labour laws, and the rules that restrict doing business. Enhancing the entrepreneurial spirit is always of great value for a workable market economy, but in these times of digital transformation, it is even more welcome.

Inclusive social institutions

As already pointed out, lifelong dependent work in one single company will become less important in these times of digital transformation. The hitherto related lack of collective social protection, and the system of contributions paid half by employer and half by employee, requires adjustment within social security systems. One possible reaction would be to integrate freelancers into the collective pension system. A different answer could

be to shift funding for social security from a social contribution on wages and labour towards an indirect taxation, for example, VAT. This would also reduce labour costs and strengthen the incentives for labour demand by businesses in times of change. Or these means could be invested in life-long-learning approaches as discussed above.

This has to be backed up by a withdrawal of the strict general labour law regulations so as to give more power to social partners. Employers, trade-unions and agreements at the level of firms would give more appropriate solutions than a central state could provide in order to keep a balance between the need for flexibility, fully prepared and high skilled workers, and the need for social protection, with enough room for recreation and creativity.

A crucial role in this shift of skills, jobs and professions will be played by the labour agencies. The need for life-long-learning has to be met in-work and not only in the case of unemployment. Workers in the German system are only eligible for unemployment benefits when they get fired. This provides a strong incentive for employees to stick to their jobs, even in times where change could be helpful for both sides. To develop 'employment' instead of 'unemployment' the insurance social security provides will be the guideline to meet the needs of the changes.

Utopians even claim the return of an old idea such as the basic income. They see these times of robotics in the value chains as a realistic starting point for disconnecting labour and work from income and social security. The idea behind this is, that gains in productivity could be translated into leisure. But the reality is that mankind does not work significantly less and this approach could, in terms of work ethic and self-responsibility, even become too disruptive.

4.

Conclusion

New jobs and skills will be carried out by people with digital thumbs. Politicians and businesses can do much to advocate for the potential of change and giving people time to adjust. Openness to technology is the best mental and societal attitude, which helps frame the disruptive changes of the digital transformation that we are in the midst of, for the good and the sake of all.

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The NEETs, the Working Poor and the Economic Immigrants – Selected Social Changes in the Future Labour Market

Rafał Muster

Summary

This paper analyses three of the issues weighing on the future of the European labour market: the NEET (not in employment, education or training) phenomenon, the pauperisation of part of the working population, and the problem of aging. On top of these, the issue of immigrants being inserted into the labour market is also discussed.

All four topics are of grave concern. Europe is witnessing a growing number of young individuals who are unemployed, and who do not educate themselves or develop their qualifications. During the period between 2006 and 2015 the percentage of NEETs within the age group of 15 to 34 increased from 15.2% to 16.1% in the EU. This educational and professional passivity triggers a chain of dangerous consequences. The increase in the number of individuals at risk of poverty is no less worrying. Currently nearly one in ten individuals aged 18 to 64 is threatened with poverty. At the same time, the EU's labour market is beginning to suffer due to a decreasing supply of working aged individuals.

In contrast, the fourth phenomenon mentioned above – the influx immigrants – gives reason for hope. As will be discussed in this research

paper, immigrants may fill many of the gaps in the labour market, provided they are not discriminated against and do not violate legal regulations or accepted cultural standards.

Key words

labour market, unemployment, working poor, low paid job, NEET (not in employment, education or training), seniors in the labour market

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Introduction

The European labour market is facing numerous challenges that are connected to, among other things, economic and socio-demographic changes. This paper concentrates on four of the issues that will become more important in the coming years.

The first part of the report is devoted to the issue of youngsters who are neither employed, nor improve their qualifications (the so-called NEETs), who for various reasons remain professionally passive, and do not educate or train themselves.

The next section focuses on the problems related to the phenomenon of the working poor: professionally active individuals whose earnings don't allow them to extricate themselves from poverty. However, in spite of the low financial gratification for their work, these individuals remain professionally active.

Finally, the paper discusses the issue of the aging population of the European states. The consequences of the retirement of individuals born during the post-war demographic explosion period, combined with a low birth rate (frequently below the level of demographic renewal) leads to a deficit in labour resource supply – a phenomenon already visible in certain European countries. In the future this phenomenon may constitute a genuine problem that will lead to increasing difficulties for employers. As will be discussed, economic immigrants may prove helpful in solving this workforce deficit issue in certain European countries. The statistical data presented in the report and its statistical annexes were obtained mainly from Eurostat. The time periods and geographic range of the statistical data depended on their accessibility.

Unemployment in the European labour market: an outline of the problem

It is impossible to discuss the social problems of the labour market without first analysing the level of the unemployment rate. It is an important context against which the issue of NEETs and the working poor have to be discussed.

The level of registered unemployed correlates positively with other detrimental trends in labour markets, including, among others, the pauperisation of employed individuals. High unemployment rates translate into a large supply of potential employees, which results in employers being unwilling to increase salaries. In consequence, this results in a growing percentage of badly-paid positions that discourages people (including youngsters) from being professionally active. In addition, careful analysis of the available unemployment data leads to surprising conclusions that defy long-standing assumptions. For example, there is the assumption that in a period of economic crisis, unemployment indicators rise considerably only to fall once the crisis subsides. However, this is not what happened in some of the EU countries during the recent economic crisis. In Greece, Cyprus, Italy and France there was also an increase in unemployment in the years following the peak of the crisis. In 2016 the most difficult situation, with regards to unemployment levels, was recorded by Greece (23.6%), Spain (19.6%), Croatia (13.3%), Cyprus (13.1%), Italy (11.7%), Portugal (11.2%), and France (10.1%).

The issue of NEETs in the European labour market

One of the problems of the European labour market is the ongoing trend of a relatively high percentage of individuals who are categorised as NEETs (neither in employment nor in education and training). Young individuals categorised as NEETs will constitute a growing problem for the European labour market. Statistical data clearly shows a growing percentage of youngsters who refuse to undertake employment, education, or any other form of training. This passivity of the youth, imposed either by the difficult situation in the labour market or their own choice, implies many negatives – including a growing support for extremist, populist, political formations that have not been evident in recent decades. Generally, the unemployed are more vulnerable to populist slogans. Those belonging to this category need to meet all three conditions listed here, namely: they do not work, are not part of the school system, and they do not participate in courses or training to improve their qualifications.

Research in this field is complicated by the fact that a substantial proportion of these individuals (NEETs) are not listed in any of the official statistics held by employment agencies. Individuals belonging to the NEETs' category constitute a truly diversified group. Literature on the subject differentiates five different categories within this group:¹

¹ NEETs Young people not in employment, education or training: Characteristics, costs and policy responses in Europe, European Foundation for the Improvement of Living and Working Conditions (Eurofound), Dublin Brussels, 2012, p. 24-25.

- the conventionally unemployed – definitely the most numerous group, which includes both short and long-term unemployed;
- the unavailable – individuals unable to initiate activities in the sphere of work or study for various reasons – those NEETs who are sick, who are disabled, or who are guardians with family obligations;
- the disengaged – demotivated ex-workers and the unemployed but also youngsters who have an antisocial lifestyle;
- the opportunity-seekers – youngsters actively searching for employment or training, though not for randomly selected courses or positions, but rather for those appropriate to their position, skills or professional aspirations;
- voluntary NEETs – this specific group includes individuals involved in other activities such as art, music, travelling, or various aspects of self-improvement.

The available data shows that the percentage of individuals aged between 15 and 34 without employment and not in education within the territory of the EU, increased during the decade between 2006 and 2015 from 15.2% to 16.1% (that is by 5.9%). However, what needs to be emphasised here, is during the most recent period (since 2012) the tendency intensified. The biggest percentages of individuals (exceeding 20%) categorised as NEETs in the age group between 15 and 34 were recorded in former Yugoslav Republic of Macedonia (33.9%), Greece (27.1%), Italy (26.9%), Bulgaria (23.0%) Croatia (21.2%), Romania (21.1%) and Spain (20.9%).

During the period between 2006 and 2015 the increase in percentage of individuals classified as NEETs rose in 20 countries (for details see Annex Table 2), whereas in 11 states the same indicator declined. The biggest growth in the number of NEETs aged 15 to 34, for the period 2006–2015 was recorded in the following countries: Greece (a growth

of 57.6%), Cyprus (55.8%), Denmark (55.5%), Spain (48.2%), Great Britain (44.6%), Ireland (39.7%), Italy (32.5%), and Slovenia (35.9%). The largest reduction, 29.2%, was observed in Germany.

Available data shows that the NEETs problem is most acute (levels exceeding 30% of the population aged between 14 and 24) in certain regions of southern Europe. In 2015, record levels were observed in the Bulgarian region of Severozapaden (45.7%), Sterea Ellada in Greece (42.8%) and also Calabria in Italy (42.3%). The German regions of Oberbayern (4.7%) and Schwaben (4.3%), and the Dutch region of Overijssel (4.9%) were on the opposite end of the chart (for more details, see Annex tables 3 and 4).

The available literature provides ample description of the different characteristics within the NEETs group for various countries.

Table 1.

EU COUNTRIES WHERE THE GIVEN CHARACTERISTIC OCCURS	DESCRIPTION OF THE CHARACTERISTIC
AUSTRIA, DENMARK, FINLAND, GERMANY, LUXEMBOURG, SWEDEN, UNITED KINGDOM	LOW NEET INDICATOR: PROFESSIONALLY INACTIVE BUT WITH PROFESSIONAL EXPERIENCE, INDIVIDUALS WITH LOW QUALIFICATIONS
GREECE, POLAND, SLOVAKIA, HUNGARY, BULGARIA, ITALY, ROMANIA	HIGH NEET INDICATOR: FEMALES, PROFESSIONALLY INACTIVE AND WITHOUT EXPERIENCE, HIGHLY QUALIFIED BUT DEMOTIVATED WORKERS
ESTONIA, LITHUANIA, LATVIA, IRELAND, SPAIN, PORTUGAL	NEET INDICATOR BELOW EUROPEAN AVERAGE: UNEMPLOYED BUT WITH PROFESSIONAL EXPERIENCE, MEDIUM LEVEL QUALIFICATIONS
BELGIUM, CYPRUS, CZECH REPUBLIC, FRANCE, SLOVENIA	HIGH NEET INDICATOR: MALE, UNEMPLOYED AND WITHOUT EXPERIENCE, HIGHLY QUALIFIED BUT DEMOTIVATED WORKERS

Source: B. Serafin-Juszczak, *NEET – nowa kategoria młodzieży zagrożonej wykluczeniem społecznym* [in:] Acta Universitatis Lodzensis, Folia Sociologica 49, 2014, p. 53.

An analysis of available statistical data suggests that Europe should expect an increase in the percentage of youngsters who will neither continue education nor start work. On the basis of the available statistics it can be observed that during the years 2006 to 2015 the European proportion of those who do not learn, do not raise their qualifications, and stay out of labour market, rose by 5.9%; while in EU countries it rose by 11.4%. This will inevitably lead to an aggravation of the consequences. Among the economic implications, one should underline the steadily increasing burden put on state budgets due to the transfer of the various social benefits targeted at NEETs. These not only include benefits but also health and social insurance premiums. Additionally, these individuals do not contribute to the cost of their retirement insurance.

The educational and professional passivity of NEETs generates a number of negative social consequences, such as their susceptibility to involvement in illegal activities, but not only. Another indirect consequence of 'NEET-isation' is radicalisation that results in a growing support for extreme political organisations, both those of the right and left. The literature emphasises that the unemployed are more vulnerable to populist slogans. Increasing unemployment and its increasing duration is accompanied by a growing risk of tensions and social unrest, which in turn can result in the destabilisation of political systems.² The professionally and educationally passive youngsters also assume a more radical attitude towards immigrants, considering 'the foreigners' to be one of the crucial reasons for their problems connected with obtaining employment. NEETs seem not to acknowledge the fact that immigrants frequently accept jobs that they refuse to accept due to unfavourable financial or working conditions.

² I. Nowrot, Gospodarcze skutki bezrobocia, [in] Praca, społeczeństwo, gospodarka. Między polityką a rynkiem (ed.) J. Osiński, W-wa 2011, p. 117.

It is also necessary to pay attention to the psychological effects of professional, educational, and training inactivity. The increasing frustration caused by an inability to pursue a career in the labour market; comparing one's own situation to the position of successful peers, either in education and/or professional capacity, entails numerous detrimental implications. Auto-defining one's own situation in the context of comparison with those who 'have made it' may trigger the self-perception that one is a redundant, useless individual – which in extreme cases may lead to suicide attempts, illegal activities, the search for acceptance within criminal groups, and the abuse of alcohol or drugs.

The problem of the 'working poor' in the European labour market

Another growing problem that the European labour market faces is the issue of the working poor, the deepening phenomenon of income poverty among professionally active individuals. This defies the stereotypical assumption that poverty is generally caused by a lack of employment. The problem increases with each passing year; the available statistical data suggest that the problem affects a growing number of professionally active individuals in Europe (see Annex Table 5). It is no surprise then that an increasing amount of attention in political and academic debate is devoted to the issue of low wage workers.³ The issue of workers in precarious employment and precarious work has been popularised in the literature on the subject by the British economist, Guy Standing.⁴ The notion of 'precarariat' stems from the English term *precarity* or from the French *precarité* – meaning an unstable situation.

One of the effects of the fuel crisis of the 1970's was the employers' tendency to reduce the cost of labour. In such circumstances, flexible forms of employment gain in importance and the number of people on long-term contracts goes down. Unfavourable changes in global economies also took

³ A. Stanaszek, Bieda (z) pracy, czyli o biednych pracujących we współczesnym świecie [in:] Kultura i społeczeństwo, nr 2/2004, p. 143; J. Zabielska, Ubóstwo a procesy marginalizacji społecznej, Lublin 2007, p. 25.

⁴ G. Standing, Prekariat. Nowa niebezpieczna klasa, Warszawa 2014; G. Standing, Karta prekariatu, Warszawa 2015.

place in the 1980's and this period gave rise to the term 'working poor', which was initially used in the US. The term applies to workers who live below the poverty line but officially hold jobs.⁵

Crucial changes in the labour market, resulting in the deterioration of employees' material situations, originated with the economic crisis that begun in the United States in 2008. Among the disturbing consequences of this last crisis was that there was not only a time-limited increase in unemployment rates, but also a deep and apparently constant change in the quality of jobs. As Jeremy Rifkin put it, the global increase in the scale of unemployment resulted in a qualitative change of access to workplaces. In his opinion, the number of positions that do not require high technical or social competences will grow, but, at the same time, such positions are usually badly paid and based on flexible forms of employment.⁶ These badly paid and insecure jobs form what is now called the 'secondary labour market'. P. Doeringer and M. Piore are regarded as the authors of the dual labour market concept, which anticipates the market's division into primary and secondary groups. The primary market is characterized by good working conditions, stable employment, high wages, as well as the possibility for professional development. The secondary labour market, by contrast, is characterized by employment instability, low wages, and limited possibilities for professional development or promotion.⁷ Due to inferior working conditions and low wages, the secondary market is also connected with high staff turnover rates.⁸

⁵ A. Stanaszek, op. cit., p. 151-152.

⁶ J. Rifkin, *Koniec pracy. Schyłek siły roboczej na świecie i początek ery postrynkowej*, Wrocław 2003.

⁷ Compare: P. Doeringer, M. Piore, *Internal labour markets and manpower analysis*, Lexington, Massachusetts, 1971.

⁸ W. Kozek, *Rynek pracy. Perspektywa instytucjonalna*, Warszawa 2014, p. 116.

This section of the labour market, in contrast to the primary market, offers positions that require intense effort while simultaneously offering only slight opportunities for promotion, if any.⁹ These badly paid positions occur most frequently in one of the following areas of business: the restaurant and food industries, hotel services, security services, cleaning, gardening, agriculture, or trade.

As a consequence, a new social class is being created and it encompasses those whose income is close to the poverty threshold. Thus, both during the economic crisis and also for several years afterwards we should expect an increase in the pauperisation of a certain proportion of professionally active individuals – a phenomenon that has been clearly visible in the European labour market in recent years. This is why this problem also constitutes the subject of the statistical research.¹⁰

⁹ W. Kozek, Rynek pracy [in:] Encyklopedia socjologii, Warszawa 2005, p. 223.

¹⁰ While attempting to describe the phenomenon of the pauperisation of certain parts of the working population in the contemporary labour market, researchers used data gathered on the basis of EU-SILC survey. Thanks to this, an attempt to compare statistical data from various states belonging to the European Union, in relation to the problem of poverty risk among employed individuals was made.

The European study of living conditions (EU-SILC) – in compliance with Eurostat's definition – constitutes a reference point for the comparison of statistics concerning the distribution of incomes and social integration within the European Union. It is used for monitoring social policy through the Open Method of Coordination (on-line: www.ec.europa.eu/eurostat). This research focuses around income, mainly personal income. Additionally, information concerning social exclusion, housing conditions, work, education and healthcare (ibid.) is also obtained. However, it should be explicitly stressed that the EU-SILC study is based on the rule of common 'frames' and not common 'research'. The so called common frames defines the unified list of final variables delivered to Eurostat – both of a primary – namely those delivered annually, and of secondary character – those delivered every four years or even less frequently.

The methodological frames of the research rely on common guidelines and procedures, unified understanding of the concept of a household and income, which leads to the maximisation of possibility to compare data (ibid.)

Eurostat defines the notion of the working poor as follows: 'low income threshold: less than 60% of the median equalised household income'.¹¹ This category includes individuals with low incomes below 60% of the median of equalised household income per capita.

On the basis of empirical data analysis (EU-SILC survey) we may conclude that the highest indicators for poverty risk among the working members of the population (in the age group 18 to 64) among European countries occur in Romania (19.5%), Serbia (14.9%), Greece (13.2%), Spain (12.6%), Estonia (11.8%), Luxembourg (11.1%) and Italy (11.1%). However, this problem also concerns, to a lesser extent, the professionally active inhabitants of the Czech Republic (3.6%), Finland (3.7%), Belgium (4.8%), Denmark (4.8%), Norway (5.2%) and Holland (5.3%). In Poland the problem of poverty risk among those in employment – as established by EU-SILC survey – concerns 10.7% of individuals aged between 18 and 64. The European average for the same factor is 9.6% - (detailed data has been presented in Annex Diagram 1.).

When analysing the phenomenon of the working poor during the eight year period, 2006–2014, on the basis of the Eurostat data, it was concluded that the percentage of working individuals at risk of poverty had increased in the majority of European countries. (See Annex Table 5). The largest increase in working poor (exceeding 30%) during the above mentioned period was observed in Germany (an increase of 80% – from 5.5% to 9.9%), Bulgaria (69% – from 5.5% to 9.3%), Estonia (51% – from 7.8% to 11.8%), Malta (39% – from 4.1% to 5.7%), France (33.3% – from 6.0% to 8.0%), and Slovenia (33.3% – from 4.8% to 6.4%). However, the largest percentage declines for working individuals at risk of poverty for the same period (2006–2014) was recorded in the following countries: Latvia (a decrease

¹¹ R. Pena-Casas, M. Latta, Working poor in the European Union, European Foundation for the Improvement of Living and Working Conditions, Luxemburg 2004, p. 7.

of 25.9% – from 11.2% to 8.3%), Lithuania (16.8% – from 10.1% to 8.4 %), Poland (16.4% – from 12.8% to 10.7%), Finland (15.9% – from 4.4% to 3.7%), and Ireland (11.3% – from 6.2% to 5.5%).

Another fact that must be emphasised is that during the period between 2006 and 2014, a greater dynamic of growth in the number of employed individuals at risk of poverty was recorded within the Eurozone territory of the EU states (an increase of 28.8% – from 7.3% to 9.4%) than in the whole territory of the EU (an increase of 20% – from 8.0% to 9.6%) (for more details, see Annex Diagram 2.).

An analysis of empirical data indicates that the problem of pauperisation among working individuals affects males (10%) to a larger extent than females (9.1%). However, during the period between 2006 and 2014 a greater increase dynamic for this phenomenon was recorded among females (an increase of 26.4% – from 7.2% to 9.1%) than among males (an increase of 16.3% – from 8.6% to 10%) (for more details see Annex Diagram 3.).

The available data indicate that the younger the employees are, the greater the threat of pauperisation they face (see Annex Diagram 4.). In the case of working females who are under 24 the percentage of those at risk of poverty reaches a level of 14.5%, whereas for the age group between 25 and 54 the risk drops to 8.9%, and then again to 8.3% among females over 55 years of age. In the case of males, a similar correlation is observable; the younger the employees, the higher the pauperisation risk (detailed data is presented in Annex Diagram 4.).

Another variable that plays a significant part in determining whether someone belongs to the in-work at risk of poverty category, is the level of education. There is a visible correlation: the higher the education level of the employed individuals, the smaller the risk of poverty for this particular group. Within the EU, the percentage of individuals at risk of poverty among the employed who had the lowest level of education (incomplete primary, primary or secondary education) reached a level of 18.7% in

2014; while among high school or post-high school graduates the same factor is reduced to 9.7%. Analogously, among university graduates the same indicator shrinks to the modest value of 4.5% (see Annex Table 6 for more details). Yet another factor determining the risk of falling into this category of working poor is the type of job contract. In the case of those employed on permanent contracts, the percentage of individuals threatened by poverty in the European labour market is two times smaller than those employed on the basis of temporary contracts (15.8%) (see Annex Table 7 for more details). The percentage of working individuals at risk of poverty is also clearly correlated with their length of service. The percentage of poverty risk among working individuals with a length of service shorter than one year is 18.2%, whereas among those employees whose seniority exceeds one year, the same indicator is reduced to 9.0% (see Annex Table 8).

Another crucial factor that differentiates the problem of poverty risk among working individuals is constituted in a factor related to the level of intensity of employment per household. In short, the higher the intensity of employment per household, the smaller the threat of pauperisation. In the case of households with a low intensity of employment, the percentage of working individuals threatened by poverty reaches a level of 36.8% according to EU-SILC survey; whereas in the case of households with a high or very high intensity of employment the percentage of those at risk of poverty equals 10.3% and 5.2% respectively (for more details see Annex Table 9). The size of the household also plays a role; in the case of childless households the percentage of employed individuals at risk of poverty reaches a level of 8.1%, whereas in the case of households with children this percentage grows to 11.2%.

It is of course difficult to isolate one key factor that determines if a person belongs in the category of individuals at risk of poverty. These factors are frequently interrelated. One should also take into account advancing deindustrialisation coupled with the development of the services sector;

that is, an increasing number of workplaces in the low-paid services' sector (e.g. fast food restaurants, trade, cleaning services, etc.).

It needs to be stressed, simultaneously, that the problem of pauperisation also affects white collar workers, however to a much lesser extent. In the literature on the subject the notion of 'officeriate' appears in reference to well-educated employees who perform administrative and office tasks for low salaries, frequently not exceeding the level of the lowest salary.¹²

If one applies sports terminology, we are witnessing the labour market being divided into 'winners' and 'losers'. When talking about the employed we may definitely classify those with high incomes and stable situations in the labour market as winners. This group of employees is able to improve their qualifications, as they work in companies located in the so called primary labour market. The losers in the labour market are not only deprived of a stable job, they also receive lower financial gratification, have limited opportunities for professional development, and are employed by companies located in the secondary labour market.

¹² Compare: J. Kapiszewski, Officeriat. W Polsce narodziła się nowa niezamożna klasa robotnicza [in:] *Gazeta Prawna*, nr 88/2013, J. M. Szaban, *Rynek pracy w Polsce i w Unii Europejskiej*, Warszawa 2013.

Seniors citizens in the European labour market

Another major challenge for the European labour market is the rapid aging of society. In Europe as a whole, we can expect that not only will the number of retired individuals increase, but so will the number of employees who are nearing their retirement; which indicates an upcoming aggravation of the problem.

An analysis of statistical materials allows for the conclusion that the largest percentages of individuals aged over 65 (exceeding 20%) occurs in Italy, Greece, Germany, Portugal, Finland, and Bulgaria. The greatest dynamics of growth for individuals in this category for the period between 2005 and 2016 was recorded in Albania (an increase of 55.4%), Lichtenstein (48.6%), Malta (42.9%), Holland (30%), the Czech Republic (29.8%), and Finland (28.9%) (See Annex Table 11 for more details).

At the same time, Europe is witnessing the growth in the average age of job active individuals. Between 2007 and 2016 the population of working individuals aged 45–64 increased from 127.4 million to 140.1 million, or by 10%. This is important, as research on the labour market indicates that individuals aged over 50 are discriminated against by employers in terms of access to job offers.¹³ Simultaneously, those aged over 50 who have lost their jobs need to search for employment for a much longer time compared to candidates who are under 30.

¹³ Compare: R. Muster, *Diagnoza lokalnego rynku pracy miasta Gliwice i powiatu gliwickiego*, Gliwice 2014, p. 43.

The immigration problem versus the labour market – an outline of the problem

When discussing issues related to the social problems of the European labour market it is necessary to pay attention to the question of immigration. Looking from the perspective of the needs of the labour market, and the clearly visible work force deficits in certain European countries, immigration should be perceived as an opportunity to increase the gross national product – even more so considering the fact that the vast majority of immigrants are individuals of working age.

As previously mentioned, Europe is struggling with a serious ageing of society and immigrants could, potentially, fill the gap appearing in the labour market. Unfortunately, those individuals migrating to Europe usually possess low qualifications that are incompatible with the demand for workers. Their integration with local communities, assimilation into local cultural, and acceptance of legal standards are another crucial issue. Sadly, due to the terrorist attacks that have occurred in Europe in recent years, the integration of immigrants from Africa and the Near East with local communities has become far more complicated. This will also lead to problems with the integration of immigrants into their workplaces, thus hindering their effective professional activation.

According to the Eurostat data, a particularly high influx of immigrants was recorded in 2015 for the following countries: Germany (1,543,848 immigrants), Great Britain (631,452), France (363,869), Spain (342,114), and

Italy (280,078).¹⁴ Most immigrants who find employment take the so-called 'entry level jobs' – professions in the restaurant, hotel and construction industries; and agriculture, gardening, nursing and care services. Economic migrants provide employers with an additional work force supply who frequently accept jobs that no other candidates are willing to perform.

¹⁴ Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=migr_imm10ctb&lang=en [04.05.2017]

Conclusions and recommendations

How to address the NEETs' problem?

It is difficult to provide a detailed answer to the question concerning the expected long term changes in the number of young people falling into the NEET category in Europe. As already mentioned, the economic situation is only one of the many factors that decides how many individuals will remain inactive and outside the labour market and educational system.

One thing seems certain though; if Europe is to witness another economic crisis, the young population entering labour market will be the most affected. As a consequence, we should expect a substantial increase in NEETs, which would further exacerbate the situation. But even if there is no economic crisis in the foreseeable future, there are also no hints that the extremely high percentage of NEETs in regions of southern Europe will decline – not without actions that activate youngsters both in the professional and educational spheres of life.

The NEET category is highly diversified, which not only complicates the process of designing possible solutions, it also makes the implementation harder. The NEET category includes individuals who are willing to be active in the labour market but experience real difficulties in obtaining proper employment, and those who are passive due to their upbringing in unfavourable environments, that is, educational or familial, or both.

This paper recommends the following actions:

- regularly conducted research (including qualitative studies) into this detrimental labour market phenomenon, which is based on the same methodology and performed in various countries;
- the intensive promotion of an entrepreneurial attitude, starting from the early stages of education;
- the creation of tailor-made educational campaigns aimed at youth that presents the negative consequences of educational and professional passivity, explains the value of professional activity and, in parallel, showcases positive role-models;
- the inclusion of career counselling classes in the curriculum;
- linking the content of the curriculum (secondary schools, colleges, high schools, universities) with the needs of the labour market, measured at the EU sub-regions' level (or even lower down the scale), so as to enable the educational system to capture the trends in the labour markets. (Of course, the statistical analysis of the data concerning labour demand should not be accepted without criticism; due to the dynamic changes in the labour market, professions that are in high demand today may prove redundant in a relatively short time, leaving the graduates misguided.);
- promoting spatial mobility among youngsters through the development of instruments that support the transfer of potential employees from regions with high unemployment rates to those with a more favourable labour market situation (e.g. assistance not only in obtaining employment but also in potential retraining or in finding and co-financing accommodation for a certain period of time);
- enhancing the creation of workplaces, particularly in regions with high unemployment rates, for instance, through the creation of

special economic zones where employers investing in the creation of new workplaces benefit in various ways (tax exemptions, subsidies for workplace furnishings and equipment, subsidies for employment, etc.),

- the creation of schemes that support youngsters in obtaining practical work experience (apprenticeships, training etc.);
- providing information on the benefits resulting from legal employment (coupled with a presentation of the risks incurred for illegal employment).

Working poor: solutions for the future

We are currently observing a worrying increase in the proportion of employed individuals threatened with poverty in Europe. This particular trend is stronger in Eurozone states, which, due to their level of coherent economic integration, have suffered the negative effects of the last economic crisis to a larger extent. What is most puzzling is the fact that in many states the increase in low-wage workers did not stop once the crisis had subsided. There are many possible explanations for this: smaller companies, in particular those without trade unions present, might keep salaries at a low level because of their poor financial situation or due to a desire to maximise employer's profit at the expense of their employees. Other factors correlated with the pauperisation threat among professionally active individuals are connected with flexible forms of employment and the black market economy. Regardless of what explanation is the most accurate, this paper concludes that the problem is growing and should be immediately addressed. The following recommendations have been formulated:

- sound financial education needs to be strengthened and offered to all individuals who are active in a given labour market. It should start with the essentials; employees should be reminded to save as much money as possible in times of affluence (such as the one Europe is experiencing in 2017) in order to provide themselves with material security to safeguard against a possible recession;

- pension contributions should be payable for all types of employment contracts;
- the benefits of legal employment need to be promoted;
- support schemes for employees wishing to improve or complete their qualifications should be introduced on a larger scale;
- the excessive use of flexible forms of employment on the side of employers should be stopped;
- in some countries (Poland being one example), public investment in support systems for families with young children (nurseries, kindergartens etc.) must be stepped up, so as to allow for an increase in the employment rate among parents.

Ageing

In order to increase the chances of those over 50 who are in the labour market and to prolong the period of professional activity, multilayer activities should be initiated. Flexible forms of employment and work organisation may beneficially influence the level of professional activation. Social campaigns that challenge the negative stereotypes of senior citizens would also be useful. One could also propagate the idea that employers adjust working conditions to the needs and capabilities of the senior part of their personnel. However, the last point does not solely entail the physical conditions related to ergonomics. It would be advisable to reformulate the motivation system for this group of employees so that their needs are taken into consideration. This particular group is bound to show greater interest in additional medical services or social benefits connected with sanatorium treatment.

The coordinated activities of various institutions should aim to create conditions for which age does not pose a barrier to activation. Similarly, state policy should be tailored so as not to promote early retirement. Additionally, legal regulations prohibiting discrimination in accessing job offers due to, among other things, age should be enforced effectively. Unfortunately, as has been shown by the research,¹⁵ employers tend to discriminate against the elderly in their recruitment processes.

¹⁵ R. Muster, Szanse bezrobotnych w szczególnej sytuacji na rynku pracy na podjęcie zatrudnienia. Diagnoza grup defaworyzowanych przez pracodawców [in:] M. Gagacka, K. Głąbicka (ed.), Lokalne sieci wsparcia, Radom 2010.

Contrary to common beliefs, the majority of studies shows that older employees do not perform their duties less diligently, and frequently perform them more diligently than their younger colleagues.¹⁶

In conclusion it may be stated that activities for the sake of increasing the opportunities for professional and social activation for individuals over 50, should be undertaken in order to 'add life to the years that have been added to life.'¹⁷

¹⁶ P. Szukalski, *Zagrożenie czy wyzwanie – proces starzenia się ludności* [in:] *Polityka społeczna*, nr 9/2006, p. 9.

¹⁷ This statement was one of the slogans on the international scene during 1999. The year was declared the International Year of Senior Citizens by the General Association of United Nations Organisation, R. Muster, *Problemy aktywizacji zawodowej osób bezrobotnych w wieku 50 plus* [in:] *Humanizacja pracy*, nr 3-4/2009, p. 35.

Immigration

As has already been mentioned, Europe is struggling with a serious ageing of society and immigrants could potentially fill the gap appearing in the labour market. Unfortunately, individuals migrating to Europe usually possess low qualifications that are incompatible with the demand for workers. Their integration with local communities and assimilation into local cultural and acceptance of legal standards are another crucial issue. Sadly, due to the terrorist attacks that have occurred in Europe in recent years, the integration of immigrants from Africa and the Near East with local communities has become far more complicated. This will also lead to problems with the integration of immigrants into their workplaces, thus hindering their effective professional activation.

Taking into consideration the strong motivation of economic immigrants and their readiness to work within flexible forms of employment (e.g. Ukrainians in Poland) we may conclude that their presence is clearly beneficial both for employers and for the economy. One may argue that the necessity of forming an inclusive labour market where immigrants, providing they do not violate legal regulations, will be able to work, not only in the 'entry level jobs' category, but will not be discriminated against in accessing higher ranked positions, providing they possess sufficient qualifications, will provide them with a chance to follow their career paths in the countries they have emigrated to.

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The NEETs, the Working Poor and the Economic Immigrants – Selected Social Changes in the Future Labour Market

Statistical Annex

Table 1. Percentage of unemployed as part of the working age population

COUNTRIES	YEAR								
	2006			2011			2016		
	TOTAL	INCLUDING		TOTAL	INCLUDING		TOTAL	INCLUDING	
		MALES	FEMALES		MALES	FEMALES		MALES	FEMALES
EUROPEAN UNION (28 COUNTRIES)	8.2	7.6	9.0	9.7	9.6	9.8	8.5	8.4	8.7
EURO AREA (19 COUNTRIES)	8.4	7.5	9.5	10.2	10.0	10.4	10.0	9.7	10.4
GREECE	9.0	5.7	13.8	17.9	15.2	21.5	23.6	19.9	28.1
SPAIN	8.5	6.4	11.4	21.4	21.1	21.8	19.6	18.1	21.4
CROATIA	11.6	10.3	13.3	13.7	13.6	13.8	13.3	12.6	14.0
CYPRUS	4.6	3.9	5.4	7.9	8.1	7.7	13.1	12.6	13.5
ITALY	6.8	5.4	8.8	8.4	7.5	9.5	11.7	10.9	12.8
PORTUGAL	8.9	8.6	9.1	12.9	12.6	13.2	11.2	11.1	11.3
FRANCE	8.8	8.2	9.5	9.2	8.9	9.6	10.1	10.2	9.9
SLOVAKIA	13.5	12.4	14.8	13.7	13.7	13.7	9.6	8.8	10.7
LATVIA	7.0	7.3	6.7	16.2	18.6	13.8	9.6	10.9	8.4
FINLAND	7.7	7.4	8.1	7.8	8.4	7.1	8.8	9.0	8.6
SLOVENIA	6.0	4.9	7.2	8.2	8.2	8.2	8.0	7.5	8.6
LITHUANIA	5.8	6.0	5.6	15.4	17.9	12.9	7.9	9.1	6.7
IRELAND	4.5	4.7	4.3	14.7	17.8	10.8	7.9	9.1	6.5
BELGIUM	8.3	7.4	9.3	7.2	7.1	7.2	7.8	8.1	7.6
BULGARIA	9.0	8.6	9.4	11.3	12.3	10.1	7.6	8.1	7.0
SWEDEN	7.1	6.9	7.2	7.8	7.8	7.7	6.9	7.3	6.5
ESTONIA	5.9	6.2	5.6	12.3	13.1	11.6	6.8	7.4	6.1
LUXEMBOURG	4.6	3.5	5.9	4.8	3.9	6.0	6.3	6.0	6.6
DENMARK	3.9	3.3	4.5	7.6	7.7	7.5	6.2	5.8	6.6
POLAND	13.9	13.0	15.1	9.7	9.0	10.4	6.2	6.1	6.2
NETHERLANDS	5.0	4.1	6.2	5.0	4.6	5.4	6.0	5.6	6.5
AUSTRIA	5.3	5.0	5.6	4.6	4.6	4.6	6.0	6.5	5.6
ROMANIA	7.2	8.1	6.0	7.2	7.7	6.5	5.9	6.6	5.0
HUNGARY	7.5	7.2	7.8	11.0	11.1	11.0	5.1	5.1	5.1
UNITED KINGDOM	5.4	5.7	4.9	8.1	8.7	7.4	4.8	4.9	4.7
MALTA	6.8	6.1	8.3	6.4	6.0	7.1	4.7	4.4	5.2
NORWAY	3.4	3.5	3.4	3.3	3.5	3.1	4.7	5.4	4.0
GERMANY	10.1	10.2	10.1	5.8	6.1	5.6	4.1	4.4	3.7
CZECH REPUBLIC	7.1	5.8	8.8	6.7	5.8	7.9	4.0	3.4	4.7
ICELAND	2.9	2.7	3.1	7.1	7.8	6.2	3.0	2.9	3.1

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une_rt_a&lang=en [17.06.2017]

Table 2. Young people, neither in employment nor in education and training (NEET rates); from 15 to 34 years (percentage of population)

COUNTRIES	YEAR										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2006–2015
EURO AREA (19 COUNTRIES)	14.9	14.3	14.4	16.2	16.6	16.7	17.3	17.5	17.1	16.6	+11.4
EUROPEAN UNION (28 COUNTRIES)	15.2	14.4	14.2	15.9	16.4	16.6	17.1	17.2	16.6	16.1	+5.9
FORMER YUGOSLAV REPUBLIC OF THE MACEDONIA	45.9	40.2	38.5	35.6	34.3	33.8	33.9	33.1	33.9	33.9	-26.1
GREECE	17.2	17.1	16.6	17.5	20.4	25.0	29.1	30.8	29.5	27.1	+57.6
ITALY	20.3	19.9	20.3	21.8	23.3	23.7	24.8	27.2	27.4	26.9	+32.5
BULGARIA	23.8	20.2	18.5	20.8	24.0	25.6	25.4	26.1	24.7	23.0	-3.4
CROATIA	17.1	15.4	14.1	15.3	18.2	20.4	21.7	23.2	22.2	21.2	+24.0
ROMANIA	16.9	15.6	14.1	16.2	19.2	20.0	20.1	20.5	20.0	21.1	+24.9
SPAIN	14.1	13.8	16.0	20.7	20.9	21.7	23.6	24.0	22.4	20.9	+48.2
SLOVAKIA	19.3	18.3	16.8	18.8	20.9	20.9	21.2	21.5	21.4	19.9	+3.1
CYPRUS	12.0	10.7	10.8	11.7	12.9	15.0	17.4	20.3	19.5	18.7	+55.8
IRELAND	12.6	13.3	17.0	21.0	22.0	22.8	22.1	20.0	18.9	17.6	+39.7
HUNGARY	18.2	18.0	18.5	20.5	20.6	20.2	20.9	20.4	18.1	16.9	-7.1
POLAND	18.0	15.7	14.2	15.1	15.9	16.4	16.9	17.4	16.7	15.8	-12.2
BELGIUM	13.6	13.8	12.5	13.7	13.7	14.5	15.1	15.6	14.8	15.5	+14.0
FRANCE	14.6	13.8	13.3	15.3	15.4	15.6	16.1	14.8	15.2	15.8	+8.2
CZECH REPUBLIC	15.7	14.2	13.8	15.7	15.7	15.0	15.8	15.6	15.0	14.9	-5.1
LATVIA	14.7	14.5	14.7	21.6	21.4	20.2	18.2	16.3	16.6	14.7	0.0
PORTUGAL	12.4	13.2	12.2	13.1	14.2	14.2	16.6	17.1	15.2	13.5	+8.9
ESTONIA	11.7	12.4	12.3	19.2	19.4	16.6	16.5	15.3	15.2	13.3	+13.7
UNITED KINGDOM	9.2	13.6	13.7	15.0	15.2	15.8	15.5	15.0	13.7	13.3	+44.6
MALTA	17.2	16.8	14.7	15.3	14.9	14.2	14.1	13.7	13.6	13.1	-23.8
FINLAND	10.4	9.3	9.8	11.9	11.5	11.1	11.5	12.1	12.9	13.1	+26.0
LITHUANIA	11.8	11.2	13.0	16.5	18.4	16.1	15.3	14.1	13.5	12.6	+6.8
SLOVENIA	9.2	8.1	7.4	9.2	9.6	9.6	11.8	13.2	13.6	12.5	+35.9
GERMANY	14.4	13.2	12.7	13.0	12.5	11.3	10.9	10.4	10.4	10.2	-29.2
AUSTRIA	10.9	10.6	9.9	10.4	10.2	9.6	9.0	9.8	10.0	9.9	-9.2
DENMARK	5.4	6.0	5.7	7.1	8.0	8.4	8.7	8.2	8.1	8.4	+55.5
LUXEMBOURG	8.9	8.7	10.0	8.6	7.7	7.4	8.4	8.5	8.1	8.4	-5.6
NORWAY	7.2	6.6	5.9	6.8	7.6	7.4	7.2	7.5	7.9	8.1	+12.5

NETHERLANDS	6.9	6.1	5.6	6.1	6.7	7.0	7.7	8.8	8.8	8.1	+17.4
SWITZERLAND	9.2	8.3	7.7	9.3	8.7	8.5	8.5	8.5	8.3	8.0	-13.0
SWEDEN	9.4	7.8	7.9	9.7	8.3	7.9	8.3	7.9	7.7	7.4	-21.3
ICELAND	5.4	5.3	6.1	10.3	10.5	8.3	7.4	7.3	7.3	5.8	+7.4

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfse_21&lang=en [28.02.2017]

Table 3. Regions in Europe (NUTS 2) with the largest percentage of NEETS aged 18–24, as part of the population

COUNTRIES	REGION	PERCENTAGE OF NEETS IN THE POPULATION AGED 18–24
BULGARIA	SEVEROZAPADEN	45.7
	YUGOIZTOCHEN	33.4
	SEVERNA I YUGOIZTOCHNA BULGARIA	31.7
GREECE	STEREA ELLADA	42.8
	IONIA NISIA	38.0
	NOTIO AIGAI0	37.4
	PELOPONNISOS	35.4
	THESSALIA	33.0
	KENTRIKI ELLADA	31.8
	VOREIO AIGAI0	30.0
ITALY	CALABRIA	42.3
	SICILIA	41.4
	ISOLE	40.2
	CAMPANIA	37.6
	SUD	36.2
	SARDEGNA	35.8
	PUGLIA	34.8
PORTUGAL	CENTRU	33.8
	SUD-EST	31.7
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	PORANESNA JUGOSLOVENSKA REPUBLIKA MAKEDONIJA	32.3

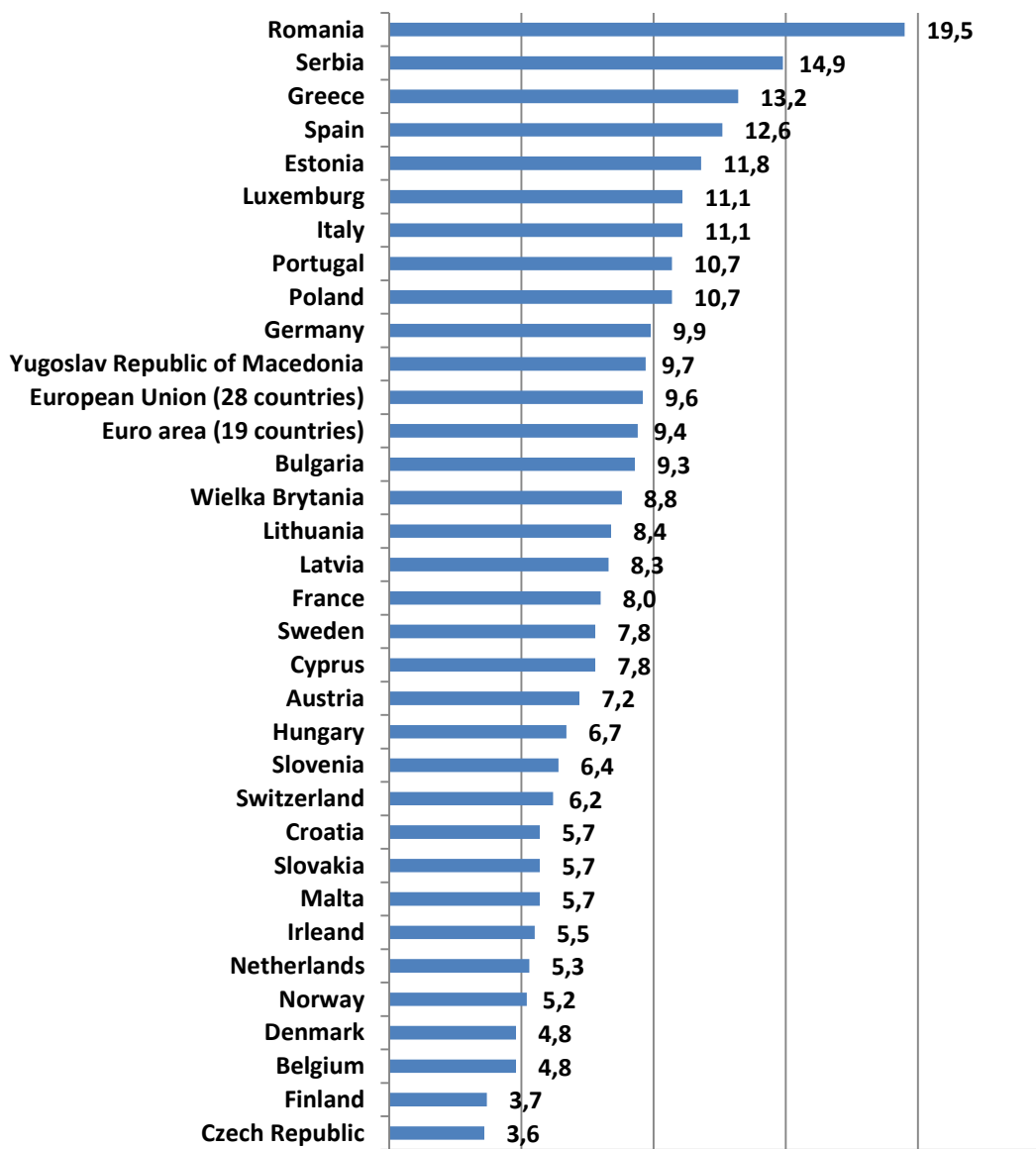
Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfse_22&lang=en [13.03.2017]

Table 4. Regions (NUTS 2) with the lowest percentage of NEETS among individuals aged between 18 and 24

COUNTRIES	REGION	PERCENTAGE OF NEETS IN THE POPULATION AGED 18–24
CZECH REPUBLIC	PRAGA	5.6
GERMANY	TÜBINGEN	5.9
	UNTERFRANKEN	5.6
	NIEDERBAYERN	5.5
	BAYERN	5.3
	OBERBAYERN	4.7
	SCHWABEN	4.3
NETHERLANDS	GRONINGEN	5.8
	DRENTHE	5.8
	LIMBURG (NL)	5.8
	OOST-NEDERLAND	5.5
	GELDERLAND	5.4
	UTRECHT	5.2
	NOORD-HOLLAND	5.2
	OVERIJSEL	4.9
ICELAND	ISLANDIA	5.6
NORWAY	OSLO OG AKERSHUS	4.7
	VESTLANDET	5.1

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfse_22&lang=en [13.03.2017]

Diagram 1. Percentage of working individuals threatened by poverty (in the age group 18 to 64) in European countries (2014)



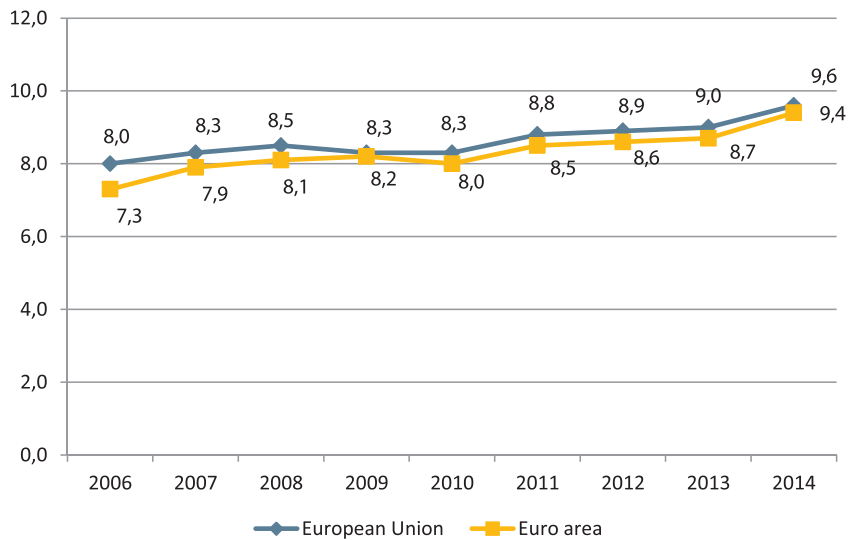
Source: Eurostat, <http://appsso.eurostat.ec.europa.eu/nui/submitView-TableAction.do> [03.03.2017]

Table 5. Percentage of employed individuals at risk of poverty (within the age group 18 to 64) in European countries (comparison of data for 2006 and 2014)

COUNTRIES	2006	2014	INCREASE/ DECREASE (2006–2014)
EUROPEAN UNION (28 COUNTRIES)	8.0	9.6	+20%
EUROPEAN UNION (EURO AREA 19 COUNTRIES)	7.3	9.4	+28.8%
ROMANIA	NO DATA	19.5	-
GREECE	13.7	13.2	-3.6%
SPAIN	10.1	12.6	+25%
ESTONIA	7.8	11.8	+51%
ITALY	9.0	11.1	+23%
LUXEMBURG	10.3	11.1	+7.8%
POLAND	12.8	10.7	-16.4
PORTUGAL	10.4	10.7	+2.9%
GERMANY	5.5	9.9	+80%
BULGARIA	5.5	9.3	+69%
GREAT BRITAN	7.7	8.8	+14.3%
LITHUANIA	10.1	8.4	-16.8%
LATVIA	11.2	8.3	-25.9%
FRANCE	6.0	8.0	+33.3%
CYPRUS	7.2	7.8	+8.3%
SWEDEN	7.4	7.8	+5.4%
AUSTRIA	6.3	7.2	+14.3%
HUNGARY	6.9	6.7	-2.9%
SLOVENIA	4.8	6.4	+33.3%
CROATIA	NO DATA	5.7	-
MALTA	4.1	5.7	+39%
SLOVAKIA	6.3	5.7	-9.5%
IRELAND	6.2	5.5	-11.3%
NETHERLANDS	4.4	5.3	+20.5%
BELGIUM	4.0	4.8	+20%
DENMARK	4.5	4.8	+6.6%
FINLAND	4.4	3.7	-15.9
CZECH REPUBLIC	3.5	3.6	+2.8%
SERBIA	NO DATA	14.9	-
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	NO DATA	9.7	-

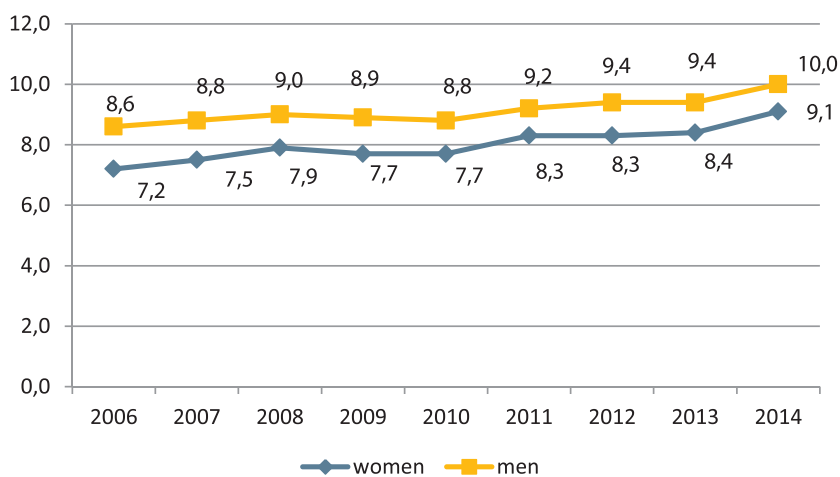
Source: Eurostat, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&pcode=tespm070&language=en> [10.02.2017]

Diagram 2. The percentage of working individuals at risk of poverty (in the age group 18 to 64) in the territory of the EU (for the period from 2006 to 2014)



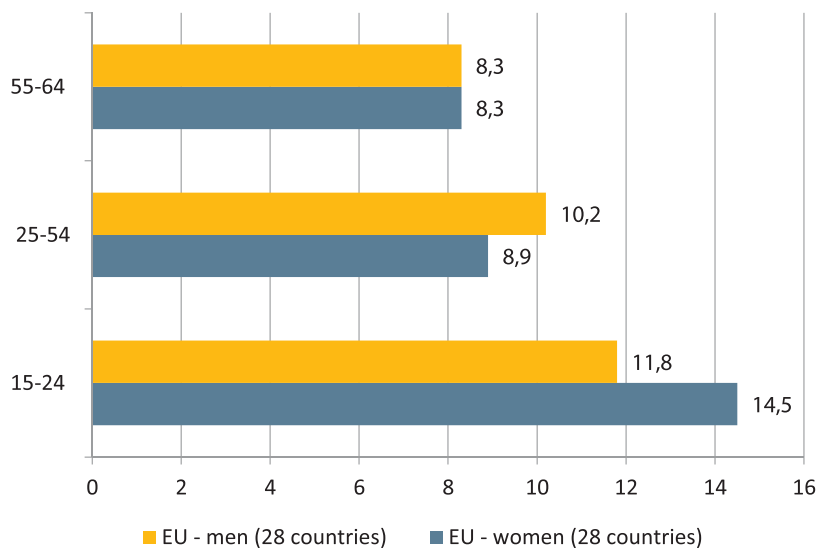
Source: Eurostat, <http://appsso.eurostat.ec.europa.eu/nui/submitView-TableAction.do> [03.03.2017]

Diagram 3. Percentage of individuals at risk of poverty among working females and males (within the age group 18 to 64) in the territory of the EU (for the period between 2006 to 2014)



Source: Eurostat, <http://appsso.eurostat.ec.europa.eu/nui/submitView-TableAction.do> [03.03.2017]

Diagram 4. Percentage of individuals at risk of poverty among employed females and males (divided into age categories) in the territory of EU (for the period 2006 to 2014)



Source: Eurostat, <http://appsso.eurostat.ec.europa.eu/nui/submitView-TableAction.do> [03.03.2017]

Table 6. Education level of working individuals at risk of poverty in the territory of EU (in 2014)

EDUCATION LEVEL	EU
LESS THAN PRIMARY, PRIMARY AND LOWER SECONDARY EDUCATION	18.7
UPPER SECONDARY AND POST-SECONDARY NON-TERTIARY EDUCATION	9.7
TERTIARY EDUCATION	4.5

Source: Eurostat, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdsc420&plugin=1> [07.03.2017]

Table 7. Job security versus risk of poverty within the territory of the EU (in %, for 2014)

JOB SECURITY	EU
EMPLOYEES WITH A PERMANENT JOB	5.9
EMPLOYEES WITH A TEMPORARY JOB	15.8

Source: Eurostat, <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tessi250&plugin=1> [07.03.2017]

Table 8. Length of service versus risk of poverty among employed inhabitants of the EU (in %, data for 2014)

LENGTH OF SERVICE	EU
SHORTER THAN 1 YEAR	18.2
1 YEAR OR MORE	9.0

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_iw06&lang=en [02.03.2017]

Table 9. Intensity of employment within a household versus risk of poverty in the EU (in %, data for 2014).

INTENSITY OF EMPLOYMENT PER HOUSEHOLD	EU
VERY HIGH INTENSITY OF EMPLOYMENT PER HOUSEHOLD	5.2
HIGH INTENSITY OF EMPLOYMENT PER HOUSEHOLD	10.3
MEDIUM INTENSITY OF EMPLOYMENT PER HOUSEHOLD	20.5
LOW INTENSITY OF EMPLOYMENT PER HOUSEHOLD	36.8

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_iw03&lang=en [08.03.2017]

Table 10. Type of household versus risk of poverty among the employed in the EU (in %, data for 2014)

TYPE OF HOUSEHOLD	EU
HOUSEHOLDS WITH CHILDREN	8.1
HOUSEHOLDS WITHOUT CHILDREN	11.2

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_iw02&lang=en [08.03.2017]

Table 11. Percentage of those 65 and older in the population

COUNTRIES	YEAR			
	2005	2010	2016	CHANGE (2005–2016)
EU (28 COUNTRIES)	16.6	17.5	19.2	15.7
EURO AREA (19 COUNTRIES)	17.3	18.3	19.9	15.0
ITALY	19.5	20.4	22.0	12.8
GREECE	18.3	19.0	21.3	16.4
GERMANY	18.6	20.7	21.1	13.4
PORTUGAL	17.2	18.3	20.7	20.3
FINLAND	15.9	17.0	20.5	28.9
BULGARIA	17.4	18.2	20.4	17.2
SWEDEN	17.2	18.1	19.8	15.1
LATVIA	16.6	18.1	19.6	18.1
CROATIA	17.3	17.8	19.2	11.0
ESTONIA	16.6	17.4	19.0	14.5
LITHUANIA	15.8	17.3	19.0	20.3
MALTA	13.3	14.9	19.0	42.9
SERBIA	17.1	17.0	19.0	11.1
DENMARK	15.0	16.3	18.8	25.3
FRANCE	16.3	16.6	18.8	15.3
SPAIN	16.6	16.8	18.7	12.7
AUSTRIA	15.9	17.6	18.5	16.4
SLOVENIA	15.3	16.5	18.4	20.3
CZECH REPUBLIC	14.1	15.3	18.3	29.8
HUNGARY	15.6	16.6	18.3	17.3

BELGIUM	17.2	17.2	18.2	5.8
NETHERLANDS	14.0	15.3	18.2	30.0
SWITZERLAND	15.8	16.8	18.0	13.9
UNITED KINGDOM	15.9	16.3	17.9	12.6
ROMANIA	14.2	16.1	17.4	22.5
LIECHTENSTEIN	11.1	13.5	16.5	48.6
NORWAY	14.7	14.9	16.4	11.6
POLAND	13.1	13.6	16.0	22.1
CYPRUS	12.1	12.5	15.1	24.8
SLOVAKIA	11.7	12.4	14.4	23.1
LUXEMBOURG	14.1	14.0	14.2	0.7
MONTENEGRO	12.5	12.9	14.1	12.8
ICELAND	11.8	12.0	13.9	17.8
IRELAND	11.1	11.2	13.2	18.9
FORMER YUGOSLAV REPUBLIC OF MACEDONIA	10.9	11.6	13.0	19.3
ALBANIA	8.3	:	12.9	55.4
TURKEY	6.7	7.0	8.2	22.4

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en [06.03.2017]

Unconditional Basic Income: A solution to future labour market problems?

Dominik Owczarek

Abstract

The unconditional basic income (UBI) is an idea that has gradually gained in popularity over recent decades. In spite of the fact that the introduction of this instrument would require a radical reconstruction of national social security systems, it seems to be a concept that would address the scale of the challenges faced by the world's economy and labour market in the near future. Numerous conceptualizations of this idea, as well as of specific, basic income instruments, have been created. Its proponents and opponents form some unexpected coalitions, which defy traditional political divisions. However, until now there has not been sufficient data with solid empirical foundations available that would allow a conclusive assessment of how the unconditional basic income works in practice, and that would make it possible to confront the instrument with its theoretical concepts. A number of UBI pilot programmes are currently in progress and these will soon provide more research conclusions on the effects of this measure. So far, it seems that the introduction of the UBI in its classic form in many European countries – especially in Central and Eastern Europe – seems to be too much of a burden for public finance systems to bear in their current shape. This, however, does not rule out the option of searching for new solutions that could lead to the implementation of this measure in the longer term.

Key words

universal basic income, future of work, labour market, poverty, social policy, uberization, precariat/salariat

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Introduction

The contemporary world of work is undergoing some dramatic changes. Even though these are taking place gradually, they are very dynamic, which reflects the pace of technological development, often referred to as ‘the fourth industrial revolution.’ In the most developed countries, during the lifetime of a single person, we have observed a transition from the traditional industrial economy, accompanied by a social and political consensus; to an economy based on digital solutions and advanced technology. The huge scale of technological innovation and its commodification require the identification of a new centre of gravity and balance between capital and labour that has not yet been developed. Thinkers, researchers, and journalists more and more frequently feel that they also need a new language to describe the new reality, because so far, the categories used to explain certain phenomena appear to be insufficient.

The economic changes driven by the global technological revolution must also be followed by the adaptation of the form of the welfare state, which is, in principle, expected to realize human rights, and ensure minimum living standards and an equal footing in social life. There is no doubt that the European Union is at the forefront of setting the standards for quality of life in the world, taking into account abovementioned values. With the prospect of ‘the end of work’, often identified as being the direct consequence of digitalization and automation, a challenge will be posed by the situation in which a substantial proportion of social groups in developed societies will not even have the chance to enter the labour market. The scale of this potential problem is, at the same time, a measure of the challenges faced by social policy. Here a worrisome question appears: How

to ensure that all members of developed societies maintain their current standard of living in a world where the structure of economic relations keeps changing significantly?

It has been proposed, for at least a few decades, that the answer to contemporary challenges is the unconditional basic income, the UBI. Today, this instrument functions only as a concept discussed in public debate and none of the OECD countries has decided to implement it as a universal measure. However, in 2013, the European Citizens' Initiative for an Unconditional Basic Income emerged; in 2016 the Swiss held a referendum for a proposal to introduce such an instrument, and there are currently a few countries where research experiments involving small groups are underway (e.g. Finland and Canada). In the twentieth century, too, there have been some isolated attempts to test the impact of such measures on small groups. However, none of these attempts led to the introduction of such an instrument as a structural solution within national or European social policy: the European Citizens' Initiative did not manage to collect the number of votes required for their proposal to be considered by the European Parliament (285 thousand out of the required 1 million), whereas the Swiss rejected their proposal in a referendum.

We are, therefore, still dealing with a theoretical construct. The debate about the universal basic income goes beyond the narrow groups of experts and academics; this is shown, for instance, by the fact that in May 2017, the founder of Facebook, Mark Zuckerberg, in his widely commented speech at Harvard University, pointed to this instrument as a way of responding to the digital revolution of which Facebook is a symbol.

The UBI idea unites some of the liberal and left-wing groups whose representatives get strongly involved in advocating for this solution. There are obviously some fundamental and deep differences between these groups concerning the form of this instrument, the possibilities for its application, and perhaps primarily, the motivation and the manner in which it may be

embedded into the economic, social and political order. The interest in this measure only highlights the fact that the current economic changes are of a fundamental nature – they might involve upsetting the current welfare state paradigm and developing new conceptual categories that we will have to become accustomed to.

The same solution has been advocated in the past by, for instance, the monetarist Milton Friedman;¹ and more currently by, Guy Standing,² a social democrat and the author of the term ‘precariat’. They have both talked about the potential of the basic income to radically restructure the world of labour and even describe it as an essential response to the imminent deep transformation of economic relations. On the other hand, those who oppose the UBI include the neo-Marxist, Slavoj Žižek, and the White House administration during the term of the democratic president, Barack Obama, as expressed, for example, in the famous report of 2016.³ In a sense, these unexpected ‘coalitions’ make it possible to go beyond the already outdated division of the left and right ideologies that represent a socio-economic order that already belongs to the past. This, however, does not mean that we are entering an era when all the fundamental political differences and views on the vision of socio-economic relations are no longer relevant. A lot depends on the detailed solutions and the role of the UBI that the debaters would like to see implemented.

The two fundamental problems that the UBI is expected to address are the eradication (or significant reduction) of poverty – including in the most highly developed countries – and to respond to digital transformation, ro-

¹ M. Friedman, *Capitalism and Freedom*, The University of Chicago Press (Chicago 1962)

² G. Standing, *The Precariat: The New Dangerous Class*, Bloomsbury (London, New York, 2011)

³ White House, *Artificial Intelligence, Automation, and the Economy*, Executive Office of the President, Washington DC (December 2016)

botization and automation as a consequence of the global technological revolution. The conviction that the current social policy is inadequate,⁴ which has either been dismantled in western countries over the last three decades or has never been properly developed (especially in CEE countries), provides a very important context for this solution.

With regard to public support, Europeans differ in their level of support for the universal basic income. Poles appear to be the most enthusiastic supporters of this measure (as much as 60% of Poles believe that it is a good solution); significantly more than the Germans (52%), Italians (50%), or Swedes (43%), while support for the UBI among the British (33%), Spaniards (31%) and French (29%) is lower.⁵ Compared to those countries mentioned above, Poles (61%) most often respond that the measure will contribute to the reduction of poverty (Germany 59%, Sweden 52%, UK 51%, Spain 51%, Italy 47%, France 45%), will enable people to spend more time with their families (Poland 67%, Germany 61%, Sweden 57%, UK 52%, Spain 50%, Italy 48%, France 41%), and increase the chances for getting involved in local community affairs (Poland 52%, Germany 46%, Sweden 45%, Italy 43%, UK 40%, Spain 37%, France 28%). However, it is the respondents from France who most often see some potentially negative aspects in the unconditional guaranteed income; thus, compared to the other surveyed countries, 67% of respondents from France believe that people will become more dependent on public benefits (Poland 61%, Spain 61%, UK 58%, Sweden 56%, Italy 55%, Germany 47%), 61% think that a basic income

⁴ See, criticism from Guy Standing. G. Standing, *About Time: Basic Income Security as a Right*, [in:] G. Standing (ed.), *Promoting Income Security as a Right. Europe and North America*, Anthem Press (London 2005) or analytical criticism from Vanhercke B.; Natali D. and Bouget D. (eds.). *Social Policy in the European Union: State of Play 2016*, European Social Observatory (Brussels 2016)

⁵ Ipsos, *Public Perspectives on Universal Basic Income*, (June 2017),

will discourage people from remaining in or seeking gainful employment (Spain 58%, Poland 55%, Germany 55%, UK 55%, Italy 50%, Sweden 45%) and 46% hold the view that this solution will entail a rise in taxes to a level that will be difficult to bear (Spain 52%, UK 49%, Poland 48%, Sweden 46%, Italy 46%, Germany 42%). However, there may be doubts as to what vision of the unconditional guaranteed income the respondents have in mind, and what question they are actually answering.

The concept – or in fact – concepts of the UBI are still in their adolescent period. It is therefore difficult to provide firm conclusions and evaluations of these instruments. The fact that it is appealing and, at the same time radical, draws attention and raises the question: Will the unconditional basic income, in any of its versions, be the right answer to the future challenges facing the world of work and will it become an element of the new order that will form right before our eyes in the coming decades?

1.

Why unconditional basic income?

The unconditional basic income assumes that every citizen (universality), regardless of their age, financial or family status, health condition, or income gained from other sources, shall regularly receive the same amount of money, as specified by the state, and covered from public funds. The receipt of this benefit shall not be tied to the meeting of any conditions (unconditionality) that would require the recipient to undertake any action – be it economic activity, carer duties, or any other. In principle, the unconditional basic income is expected to ensure that every citizen has a share in the total income of the national economy, regardless of the citizen's declared needs.

In the public debate, the unconditional basic income is often discussed together with the guaranteed minimum income and sometimes also with the minimum wage, even though they are all different social policy instruments. The guaranteed minimum income is a cash payment made from public funds to citizens whose income does not exceed a certain threshold. Thus, this instrument consists of conditional support that depends on the level of income at a household's disposal. The minimum wage is the lowest remuneration allowed by law for work provided; therefore it applies only to a situation in which an individual functions in the labour market; whereas the unconditional basic income is a payment made by

the state to all citizens automatically regardless of employment status or level of income.⁶

Where did the idea of a universal basic income originated? What future challenges and current problems is it expected to address?

The unconditional basic income is, first of all, a response to the global economic transformation manifesting itself in the form of digital transformation, robotization and the automation of production processes and services, which may result in radical changes in the labour market. As in the case of any transition, it can be managed and utilized in order to build the prosperity of societies and the competitiveness of economies, as well as to solve problems that the developed democracies, using existing tools, have not been able to cope with to date; including problems such as: increasing social inequality, poverty, and homelessness. Technological development also creates new problems that will pose a challenge for politicians, social partners and the economy as a whole.

The discussion primarily centres around the argument that a significant number of occupations will be eliminated due to the use of modern technology and we will be faced with the issue of technological unemployment. The appearance of autonomous vehicles will eliminate the occupations of lorry driver and taxi driver, 3D printing technology will decimate the ranks of construction workers, and the product scanner will eventually bring an end to the shop assistant's job. Amazon is already working on a system of goods delivery – including perishable food products – using drones,⁷ and is

⁶ R. Szarfenberg, *Minimalny dochód gwarantowany, bezwarunkowy dochód podstawowy, płaca minimalna – krótkie wprowadzenie* [Minimum guaranteed income, unconditional basic income, minimum wage – a brief introduction], Social Policy Institute, University of Warsaw (Warsaw, 2015)

⁷ New York Post, *Amazon plans to build flying warehouse to deploy drones*, 29 December 2016 <http://nypost.com/2016/12/29/amazon-plans-to-build-flying-warehouse-to-deploy-drones/>

developing a technology for sorting products in so called ‘dark factories’ or ‘lights-out factories’ where there is no need to turn the lights on because only machines do the work there.⁸ A White House Report issued in 2016, still under Barak Obama’s administration, entitled *Artificial intelligence, Automation and the Economy* indicates that as much as 47% of occupations known today in the US may disappear from the labour market over the next few decades.⁹

In view of all this, reference in the public debate is often made to ‘the end of work’, following the title of the famous book by Jeremy Rifkin.¹⁰ Briefly speaking, it proposes that technology will, to a great extent, replace human effort and that only a fraction of the current number of workers will have to be employed in order to satisfy the needs of all the people living on Earth. Intelligent machines would do all the necessary work and the role of humans would only be to design and construct these machines. Under such conditions a massive number of people would have no chance of entering the labour market and making a living by performing work. What is more important, however, is that the income generated by the robots’ labour would go to the robots’ owners, who would thus acquire the majority of capital and as a result, would be able to influence the power relationships.

⁸ N. Heath, *Amazon, robots and the near-future rise of the automated warehouse*, Tech Republic, 26 January 2016, <http://www.techrepublic.com/article/amazon-robots-and-the-near-future-rise-of-the-automated-warehouse/>, S. Shead, *Amazon now has 45,000 robots in its warehouses*, Business Insider, 3 January 2017 <http://www.businessinsider.com/amazons-robot-army-has-grown-by-50-2017-1?IR=T>, N. Wingfield, *As Amazon Pushes Forward With Robots, Workers Find New Roles*, The New York Times, 10 September 2017 <https://www.nytimes.com/2017/09/10/technology/amazon-robots-workers.html?mcubz=3>

⁹ White House, *Artificial Intelligence, Automation, and the Economy*, Executive Office of the President, Washington DC (December 2016)

¹⁰ J. Rifkin, *The End of Work: The Decline of the Global Labour Force and the Dawn of the Post-Market Era*, G.P. Putnam’s Sons (New York 1996)

This idea is not particularly new and has been around since machines first appeared in the world together with the nineteenth century industrial revolution; only today it is filled with new relevancies related to technological advancement and the conditions of the labour market. The increase in productivity, thanks to technological development, has been made part of the vision of the future in various ways. On the one hand it is worthwhile mentioning the example of the Luddite movement¹¹ who resisted economic progress. On the other hand, there is the vision of a future world in the prescient essay by John Maynard Keynes published in 1930, *Economic Possibilities for Our Grandchildren*, in which, instead of the end of work, the author predicted that 'the standard of life in progressive countries one hundred years hence would be between four and eight times as high as it is today' (not even 100 years later, real GDP per capita in the US has grown six fold, his midpoint estimate), and that, as a consequence, we would all be working fifteen-hour weeks and three-hour days, as we enjoyed all this newly created wealth. We know very well, however, that in spite of the accurate prediction for economic growth, the reduction in working time has not accompanied this growth and most of us can only dream of being able to work less.

The critics of the idea of the end of work point to the trends indicated by data that has been collected over the last several decades, which shows that automation, mechanization, and robotization do not pose a threat to the number of workers, which, in global terms, has grown over this period. While it is true that old occupations die out, the emergence of new technologies creates new professions. What is more, in connection

¹¹ The Luddite movement originated in the nineteenth century and was initiated by a group of English textile workers and weavers who destroyed weaving machinery as a form of protest against the replacement of human labour by machines. The protests became a symbol of the struggle between technological advancement and labour supply.

with economic development, new needs appear that are satisfied by the newly created occupations.

This, however, does not mean that the subsequent waves of industrial revolutions have not posed a challenge for labour markets. In the global economy currently, there is a growing demand for highly qualified workers, particularly those with technical skills, therefore, national education systems have a great role to play as they need to respond to the changing demand and should prepare people for developing an ability to deal with change and to respond to technological development in the following decades.

A specific feature of the current, fourth wave of industrial revolutions is its high dynamic. It may have negative, short-term or medium-term effects¹² on labour markets: before the numerous groups of workers acquire the new skills required by the market they may lose their jobs and then lack the resources to enable them to undergo vocational training and re-enter the labour market. That is why, in the case of this particular wave of industrial revolution, cautious and far-reaching government policy is of key importance, both with regard to vocational education and life-long learning, but also to social security systems so as to construct a safety net for those – one can assume numerous – groups that will be pushed out to the margins of the global transformation by the dynamics of the change.

Based on the existing forecasts, one can conclude that the end of work is a rather unlikely scenario, and therefore, the proposal concerning the introduction of the unconditional basic income as a measure to provide for the basic needs of those who will not have the chance to live off their own work, is of limited validity. Yet, the dynamic of the technological

¹² The duration of turbulent times for national and global labour markets depends on the dynamic of the technological changes, the ability of employees and companies to adapt, and the effectiveness of welfare states.

changes, which the efforts of the education system and social policy are unable to match, seem very relevant to the discussion about a universal basic income. Another important aspect is the quality and the specific nature of the jobs to be created in the new economy (more about this below). These two arguments are still invoked to make a case for the introduction of the UBI.

Guy Standing – one of the best known advocates in Europe of the UBI – lists a number of causes that lead to a solution whose aim is to ensure ‘basic security’ in a world in which social and economic insecurity prevails.¹³ They include a growing income, or even wealth inequality, accompanied by the sealing off of opportunities to gain economic stability for ever bigger social groups. What is also listed as significant is the deterioration of social ties and social capital (as defined by Robert Putnam),¹⁴ as a consequence of the growing inequalities. Uncertainty is also caused by the retreat of the welfare state and employers, from the various forms of providing social security, while the shrinking state is less and less able or willing to ensure the relevant benefits and entitlements.

Globalisation, technological development and the spread of flexible, informal labour markets are linked to the fragmentation of capital and work where control over workers and citizens is becoming more and more complex and indirect in character – as Standing argues.¹⁵ Income streams are also more complex. A small minority derive income mainly from capital with a small

¹³ G. Standing, *About Time: Basic Income Security as a Right*, [in:] G. Standing (ed.), *Promoting Income Security as a Right. Europe and North America*, Anthem Press (London 2005)

¹⁴ R. Putnam, *Bowling Alone: The Collapse and Revival of American Community*, Simon & Shuster Paperbacks (New York 2000)

¹⁵ G. Standing, *About Time: Basic Income Security as a Right*, [in:] G. Standing (ed.), *Promoting Income Security as a Right. Europe and North America*, Anthem Press (London 2005)

part of it coming from highly paid work. At the top there is the elite who receive absurdly high incomes and extraordinary profits. This income is transformed into huge fortunes that are handed down from generation to generation, leading to a concentration of financial wealth. These phenomena are accompanied by a greater dependence of workers on global capital, which is becoming stronger than nation states. New technology enables platform-based work of a project nature, which loosens the ties between the worker and the employer and prevents the consolidation of workers interests. Economists talk about 'uberization' of the economy or about the 'gig economy', which result in the fragmentation of the labour market. On the other hand, in social terms, as Guy Standing writes, a new (and dangerous) class emerges – the precariat; a class whose life experiences are defined by the above mentioned phenomena.¹⁶ It is breaking away from the core of the labour market – the so called salariat – and the prospects it faces include exactly the previously mentioned permanent uncertainty, lack of security, inability to plan, submission to rules imposed by insufficiently regulated global capital, and the permanent threat of slipping into the margins of social life.

In the context of many European countries, the market features described by Standing are clearly visible. Poland, Spain, Portugal and Croatia are the countries with the highest percentage of both fixed-term employment contracts and the recently growing proportion of civil-law contracts, in the whole of the European Union (EU). Both phenomena apply in particular to young workers. Southern European countries like Greece and Spain struggle with very high unemployment rates – still experiencing the consequences of the global economic crisis. The Netherlands have the highest rate of part-time jobs in the EU; a large proportion of these

¹⁶ G. Standing, *The Precariat: The New Dangerous Class*, Bloomsbury (London, New York, 2011)

are held not by choice but by a lack of access to full-time work. Meanwhile Bulgaria, Romania, Greece, and Lithuania have the highest rates of people at risk of poverty and social exclusion. In addition, Greece, Italy, Latvia and Poland have some of the highest proportions of working poor in the EU, that is, workers earning the equivalent of the minimum wage or less. Moreover in many European countries researchers have reported on the segmentation of the labour markets, which manifests itself in the following divisions: the secure core consisting of people enjoying the full protection of labour law, those who earn enough to meet the needs of their households, and the peripheral part (sometimes called after Standing, the precarious part), who experiences permanent social insecurity because of a lack of economic stability and security. As regards the position of the economies of CEE countries compared to the global economy, one can talk about a dependent market economy (DME), more commonly called 'the economy of subcontractors', which is located on the margins of the core western economies and is dependent on foreign direct investment (FDI) and the transfer of technological innovations.

The introduction of the unconditional basic income is often justified – mostly by left-leaning debaters – by the need not so much to make an adjustment to the current conditions of the economy and its social consequences, but to right the injustice of the entire economic and political system. This injustice – as it is argued – is evidenced by the social inequalities that have been growing since the Second World War, both in countries of developed capitalism and also in the global sense. Currently, main stream economists also tend to admit this argument (i.e. Christine Lagarde, managing director of the International Monetary Fund). Every year, during the European Economic Forum in Davos, Oxfam presents a report describing the deterioration of this situation. The European Forum for New Ideas, which has been organised annually by the Lewiatan Confederation in Sopot for the past few years now, presents this topic as one of the main challenges for the contemporary economy. A detailed picture of the

dynamics of this process is shown on the basis of well consolidated data, for example, in the famous work by Thomas Piketty. Left-wing authors formulate the demand for a fundamental change in political systems based on the aggravating lack of balance between capital and labour, which leads to social stratification that is re-produced from generation to generation (lack of social mobility). The UBI, by strengthening the position of workers and the genuine re-distribution of income, is expected to be a remedy for these unjust economic and social relations.

One must not forget, either, about the axiological argument recalled in the debate on the introduction of the UBI. This instrument, due to its universal character, implements the idea of equity by reducing inequalities not only with regard to income but also security, and freedom of access to spare time. The re-distributive nature of this instrument invokes – as has been mentioned before – the idea of social justice, as it distributes among all, the fruit of science and technology to which previous generations have contributed. Satisfying basic living needs removes social barriers and thus opens people to the idea of freedom, letting the citizen choose what he or she wishes to devote their life to: work, social, civic or any other activity. In such a situation gainful occupation is no longer a necessity but one of a range of possible choices. Among the moral arguments we will also find those that concern the restoration of dignity, which poverty deprives people of; the necessity to perform low quality work; the lack of possibilities for development; and the lack of access to resources (e.g. culture, high quality spare time) that require spending money. In addition, a universal benefit is not stigmatizing like benefits based on means tests are, which also makes the UBI an instrument for empowering citizens by releasing their activities (occupational, political, civic, artistic or any other), to a great extent, from economic constraints.

2.

How the unconditional basic income might work?

The introduction of the unconditional basic income as, essentially, a simple solution is justified in different ways by different groups. For the sake of simplicity we will briefly describe here two models on which such a justification is based: the liberal model and the model invoking human rights.

On the liberal side, the concept that is most often quoted in public debate is the measure proposed by the father of neo-liberalism, Milton Friedman, who suggested a version of the basic income in the form of a negative income tax.¹⁷ This solution anticipated the setting of a tax-free amount; earnings exceeding this amount would be subject to a tax to be paid to the state budget, whereas an income below this threshold would be supplemented by a certain sum from the state budget. Friedman, as well as a number of other representatives from liberal circles wanted this instrument to consolidate all the then current social expenditure, thanks to which savings could be made by eliminating the administrative mechanisms needed to verify entitlement to various types of benefits. In essence, then, the basic income would primarily implement the idea of the 'night-watchman state' (by a radical reduction in distributive institutions), a minimum

¹⁷ M. Friedman, *Capitalism and Freedom*, The University of Chicago Press

of interference from public institutions in the lives of citizens, and would provide a level playing field for everyone in acquiring an education and developing economic competition. The overarching goal was therefore not to solve the problem of poverty or to protect against labour market difficulties (these would only be side effects). These challenges should be addressed individually by citizens; whereas the basic income would finally settle the debate on whether certain groups in certain situations must receive support from the state. The support would be limited to the equal distribution of the UBI that was necessary to satisfy the most basic needs and would exhaust the social claims of the citizens on the state.

On the other hand, those invoking human rights, in contrast, place the emphasis on the need to reduce poverty and to ensure a minimum dignified standard of living. The UBI is perceived as a further development of the idea of the welfare state, which would better implement the social contract between the state and the citizen. In addition, it is expected to be a response to the dismantling of social policy in recent decades, that has been achieved by reducing the amount or the scope of social benefits, or imposing conditions whereby the receipt of benefits depends, for instance, on the progress made in looking for a job (*workfare* instruments). When justifying the universal character of the instrument, its proponents state that the UBI should be received by all citizens, including non-working people, because public investments funded from taxes that are paid by all citizens are commercialised (i.e. the internet and computers are commercialised products, the invention of which was supported by public funds in the US), and in this context, the UBI would constitute a dividend on public investment.

If one looks closely at the specific measures, one can find a number of different varieties of the unconditional basic income. Milton Friedman, already mentioned here, proposed that in return for introducing a negative income tax, a significant part of public support instruments should be eliminated, such as public housing, unemployment benefits, agricultural products

subsidies, vocational training, minimum wage and special entitlements for trade unions. Other solutions anticipate abolishing expenditure on healthcare services, or universal education, or even the pension system (or at least limiting the system).¹⁸ It was also debated by Friedman as to whether the introduction of the UBI as a cash benefit should be linked to abolishing social services (e.g. social work, social rehabilitation). Because of the similarities between the two concepts, the introduction of a guaranteed minimum income only for poor people is also compared with the universal basic income. In the context of the actual implementation of this instrument the conditions that accompany the existing form of the welfare state are also important.

At this stage, then, we have witnessed a multitude of concepts that have been explored by philosophers, experts in social policy, economists, sociologists, and political scientists. There have been, however, only few attempts to verify these concepts empirically.

Of the few experiments that have been conducted in recent decades, a project called Mincome has gained the greatest publicity. It was carried out in Dauphin, Manitoba (Canada) during 1975–1977 and was funded by both the federal and provincial governments. More than 2,000 inhabitants of the town (one fifth of the population) received direct cash payments throughout the full three-year period, regardless of whether the person was employed or not. The study, which was conducted simultaneously with the intervention, demonstrated a reduction in the number hospitalizations, accidents, and injuries – including domestic violence incidents

¹⁸ M. Friedman, *Negative Income Tax: The Original Idea, [in:] Basic Income. An Anthology of Contemporary Research*, ed. Karl Widerquist, Jose A. Noguera, Yannick Vanderborght and Jurgen De Wispelaere, Wiley Blackwell (Malden, Oxford, Chichester 2013) pp. 398–401

– as well as a decline in the occurrence of serious mental disorders when compared to similar families who did not receive financial support. At the same time, no significant change in the number of hours worked was observed, although students and mothers taking care of small children did reduce the number of hours spent in paid work, which enabled them to devote more time to education or childcare. In addition, the number of boys dropping out of school was registered as being smaller than it was before the experiment. What is interesting is that this applied both to boys whose families participated in the project and those whose families did not. This was interpreted as an example of the influence of the social environment of one group on another. The Mincome plan was also perceived as less stigmatizing when compared to conventional welfare instruments, for which only the poorest were eligible.¹⁹

A pilot UBI project was also conducted, unintentionally, among the Eastern Band of Cherokee Indians. In 1997, a casino was established on their property and the tribal leaders decided to re-distribute half of the profits among all the members of the tribe. The annual payouts amounted to approximately USD 4,000, increasing the households' income by 20% on average. The results observed were astonishing: children from families receiving the support fared better at school, while a radical decline in juvenile crime was noted along with fewer emotional and behavioural problems, more responsibility, better self-organization and a higher inclination for cooperation and non-egoistic behaviour. In addition, the children had better relations with their parents and the parents had fewer problems with

¹⁹ E. Forget, 'The town with no poverty: The health effects of a Canadian guaranteed annual income field experiment', *Canadian Public Policy*, 37(3), 2011, pp. 283–305. D. Calnitsky, 'More normal than welfare': The Mincome experiment, stigma, and community experience', *Canadian Review of Sociology*, 53(1), 2016, pp. 26–71. citation after G. Standing, *Basic Income: And How We Can Make It Happen*, A Pelican Introduction, Penguin Random House UK, (London 2017)

substance and alcohol abuse. These positive trends were observed to the greatest extent in the families most vulnerable to social problems.²⁰

Currently, there is an experiment underway in Finland. During the years 2017–2018, the Finnish social insurance institution, KELA, will be distributing an amount of EUR 560 every month among 2,000 randomly selected unemployed people. Concurrently, researchers will be analysing the impact of this benefit on the shape of the social insurance system and the employability of the beneficiaries. Juha Sipilä, the head of the centre-right Finnish government argued for the introduction of the pilot UBI project: ‘The Basic income experiment is one of the measures aimed at reforming the Finnish social security system in accordance with changes in working life, to make social security more participatory and incentive-based, to reduce bureaucracy and simplify the complex benefit system in a manner that could be sustainable from the perspective of general government finances.’²¹ In principle, if every Finnish citizen received EUR 560 every month, it would cost EUR 36 billion annually, which is less than current financial transfers of EUR 42 billion annually. Disputers of the UBI look forward to seeing the results of this experiment.

Other attempts to introduce various forms of the UBI are currently taking place also in a few Dutch cities; in Ontario, Canada; in California (Y Combinator Project); in Kenya (GiveDirectly), and in a number of other places. The solution is raising more and more interest and it may be hoped that the initiatives that have emerged recently will soon produce the first

²⁰ R. Akee, E. Simeonova, E. J. Costello and W. Copeland, ‘How does household income affect child personality traits and behaviors?’. NBER Working Paper 21562. Cambridge, MA: National Bureau of Economic Research 2015. <http://www.nber.org/papers/w21562> citation after G. Standing, *Basic Income: And How We Can Make It Happen*, A Pelican Introduction, Penguin Random House UK, (London 2017)

²¹ KELA, *From Idea to Experiment – Report on Universal Basic Income Experiment in Finland*, Helsinki 2015, p.10

conclusions about their social, economic and institutional effects. At this stage, however, it is still difficult to make a decisive and comprehensive assessment of this instrument, taking into consideration its impact on the labour market, poverty, social inequalities, the structure of social security systems and other important aspects, such as education, health, public order and psychology.

Critics of the unconditional basic income concept

Let us now list the most important critical arguments put forward by the opponents of the unconditional guaranteed income.

Voices from the liberal community say that the UBI will undermine work ethics and lead – as with other direct social transfers – to an expansion of the group of people living off public benefits and exploiting the existing system (free-riding). It will also result in reducing the willingness to work among low-skilled workers and put stronger pressure on employers to improve working conditions (not only those that are wage-related). Charles Wyplosz, a professor at the Geneva Graduate Institute, commenting on the Swiss referendum on the introduction of UBI claimed: ‘If you pay people to do nothing, they will do nothing.’²² The UBI is often perceived by liberals as a potential threat to the core value of liberal philosophy, which is work being a source of individual dignity. The UBI potentially opens the doors to the abandonment of work (in philosophical terms), but of course does not necessarily imply it, as there are various forms of human activity that might be called work (such as voluntary work, engagement in non-governmental organisations, taking care of family members, etc.).

The argument is also raised that employers will be more reluctant to take on new employees because of higher pay demands but also because of the likelihood of higher taxes being imposed in order to fund the UBI. The

²² See Charles Wyplosz’s comments in the article “Swiss voters reject proposal to give basic income to every adult and child” *Guardian*, 5 June 2016

primary claim, however – and this is presented as a conclusive argument – is that it is a solution that is impossible to bear under the current public finance systems of individual countries; that it will only lead to inflation following an increased demand potential from the entire population, which will be harmful for the economy, in particular exports.

The critical voices originating from social-democratic circles state that the UBI is no better than the instruments we already know, even though an advantage of the UBI is that it really reduces poverty, and also, importantly, social inequalities. Critics claim, however, that this intervention is not as effective as traditional welfare state instruments, such as progressive taxation and the redistribution of income to the poorer sections of the population, combined with a broad package of public services (including a well-developed system of social services). These proposed solutions resemble rather the guaranteed minimum income combined with public services. To illustrate: the critics' standpoint is that rather than giving all citizens the same amount of money, it is better to direct a larger stream of funds to the poorest and to public services. This makes overcoming poverty more effective and helps better bridge the income gap between the poor and the affluent. Vincente Navarro, Professor of Public Policy at University in Barcelona and Public Policy at Johns Hopkins University, Baltimore, in the US; arguing against the universal basic income put the following questions: 'Why should we spend so much on providing money for everyone, when we would need much less [about 70 times less in terms of percentage of GNP] to reduce poverty by paying a guaranteed income to those at risk of poverty, enabling them to get out of poverty by other means as well? Rather than giving money to everyone, why not help the poor get out of poverty, not only by giving them money, but also by helping them get out of the situation they are in?'²³ Anke Hassel, Professor of

²³ V. Navarro *Why The Universal Basic Income Is Not The Best Public Intervention To Reduce Poverty Or Income Inequality*, Social Europe, 24 May 2016

Public Policy at the Hertie School of Governance and Academic Director of the Hans Böckler Foundation's Institute of Economic and Social Research, calls UBI a 'sweet poison'²⁴ that will further prevent social mobility and divide society between those working and receiving the UBI and those living only off the UBI.

Some general system-related critical comments are also voiced on both sides. The critics claim that the UBI is too radical a solution, requiring an overall change in the structure of the welfare state and a change in some elements of the political system, for which the current ruling parties and the condition of national economies are not yet ready.²⁵ On the opposite side, the Neo-Marxists claim that the UBI may be effective, and thus lead to the social acceptance of capitalism as the prevailing economic system, and as such, may constitute an obstacle to the overthrow of capitalism and the introduction of more just social relations.²⁶

This heated debate, engaging both supporters and critics, can be followed in numerous newspapers, magazines and scientific articles.

²⁴ A. Hassel, *Unconditional Basic Income Is a Dead End*, Social Europe, 1 March 2017

²⁵ Ibid.

²⁶ R. Cui, *Universal Basic Income & the 21st Century Welfare State*, McGill Left Review, 26 February 2017

Conclusions

Considering the arguments listed above that appear in the debate on the unconditional basic income, let us go back to the question posed at the beginning: Will the unconditional basic income, in any form, be the right answer to the future challenges of the world of work and will it become an element of the new order emerging before our very eyes in the nearest decades?

For obvious reasons, this question will only be answered in the future. However, we can already say that this proposal has been relatively well conceptualized and its theoretical dimensions have been critically discussed. It takes the form of specific social policy measures (in different guises) although its introduction (or non-introduction) is justified in many different ways.

On the other hand, the empirical studies conducted so far have been inconclusive. The existing research material is still scarce and too one-dimensional. Will the UBI be a good instrument to cope with the digital revolution; will it improve working conditions and limit the spread of the precariat; reduce poverty (also among the working poor); reverse the trend of deepening social inequality; help increase entrepreneurship, creativity or the willingness to engage in volunteer work? We do not know for sure – yet. What is more, the experiments have been conducted on small populations, which prevents us from drawing conclusions about the social and economic consequences of applying the UBI as a truly universal measure for a country. On the other hand, there are big expectations associated with the numerous pilot projects simultaneously

launched at the turn of 2016 and 2017. What remains now, is to wait for their outcomes.

Even if we assume the optimistic scenario outcome that the predominantly positive effects of such measures will be proved, the questions still remain concerning their affordability for national budgets and the ability of current political organisations to incorporate the UBI into their social policies. There are also other challenges that have recently become particularly evident: how will establishing the UBI in one (or several) western countries affect the global migration streams (even if the migrants were excluded from the UBI during the initial stages of their stay) and whether – paradoxically – it will contribute to a deepening of global inequalities (the more affluent and more socially balanced western countries with the UBI versus peripheral and semi-peripheral countries with hardly any social policy in place). How will the capital flow and the global competitiveness of economies change under the UBI?

Growing social inequalities force us to claim that in the coming decades we will be dealing with some form of reorganization of the economy and the labour markets, accompanied by the establishment of a new socio-economic order between capital and labour. Historical experience shows that at such times of crisis, confrontations occurred that were disastrous in terms of their consequences. As a result of the last world conflict the idea emerged for establishing the European Union, which uses consensus to develop socially and economically advantageous solutions, making it possible to preserve peace and prosperity. Unfortunately, the current tensions within western countries (but also in other parts of the world) continue to grow (social inequalities, migration crises, global economic crises), which evokes the spectre of populism and its spread to countries with well-developed democratic systems. In some countries we can even see the regression of democratic standards. In this context, it seems that bold ideas – and the unconditional basic income should be considered a bold concept – reflect the scale of the challenge that we all face.

Policy recommendations

At this stage it is hard to formulate authoritative policy recommendations. It seems that it is still too early to be confident enough to recognize the UBI as an unequivocally good or bad solution to the problems that are to be answered by this instrument. Thus, first of all, the findings of the numerous studies currently underway need to be examined. An important recommendation in this context may be to establish or designate an entity at the level of the European Union that would integrate and coordinate existing research on this issue. This centre could also have a think tank function that would provide public policy solutions for implementing the UBI in specific countries (or even at the European Union level). Still, it will only be possible to introduce the UBI to a handful of the richest countries in the world (Western and Northern Europe) – certainly not in all EU countries. For example, in Poland, providing every citizen with a benefit of 250 euros a month would constitute about 70–80% of the annual state budget, which eliminates the possibility of introducing the UBI in this country, as it does for the whole CEE region. In addition, the use of the UBI in the richest countries will deepen the inequalities between the degrees of protection in particular countries, and as a result, may trigger large-scale migration.

It is also debated whether this instrument is the most effective way to deal with the problems intended to be addressed by this instrument: poverty prevention and reduction of social inequalities, and mitigating the negative consequences of the technological revolution – especially if financial transfers are not accompanied by social services. The current instruments will be more effective, but they require updating due to unprecedented capital

accumulation and technological development (i.e. by eliminating tax havens, increased fiscal burdens on the rich, the introduction of machinery tax, etc.).

What appears to be most certain now is the need to strengthen the social protection and education policies that respond to the social problems caused by technological change. Due to its high dynamic transition, negative consequences might occur in labour markets and many groups may be pushed out to the margins of the economy and society. The White House report referred to above contains three broad strategic goals that constitute a response to the social and economic impact of technological development:

- **Goal 1** – to further invest in the development of digital solutions and adapt them to present and future needs so that they bring all the possible benefits;
- **Goal 2** – to educate the public through educational institutions in order to ensure that the acquired skills meet labour market demand;
- **Goal 3** – to support workers during the transition and empower them in order to ensure broadly shared growth resulting from technological advances.²⁷

Vocational education as a tool to provide the skills needed in the digital economy, life-long learning, and better job matching as well as effective social security systems might be the most concrete recommendations that we are sure of at this stage.

²⁷ White House, *Artificial Intelligence, Automation, and the Economy*, Executive Office of the President, Washington DC (December 2016),

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