

LABOUR MARKET CHALLENGES: WILL THERE BE “DYSTOPIAN” RISKS?

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The current labour market is at a crossroads: on one hand, there are challenges triggered by technological pressures and perks, aiming at a greener, more sustainable and resilient economic growth, and on the other hand, there are the changes and tensions generated by the current institutional frameworks, that show delays in mitigating the apparent “de-socialising” of this market. The pandemic paradox of 2019-2021 has emphasized several vulnerabilities particularly of economic-institutional nature. Traditional theories seem unsatisfactory while unorthodox approaches are faced with hesitancy. The present paper intends to present a brief analysis of labour market’s challenges in the immediate future by proposing a mixed approach combining traditional statistical-data with a less employed institutional framework. The approach is substantiated and constructed by the structural and cognitive features that the new labour market would require. It suggests a possible way for considering the aims of the Green Deal, the vulnerabilities highlighted by the pandemic and by the recent conflict in the immediate proximity of the EU-27. All these developments bring about changes for several socio-economic categories, rendering most of them vulnerable. The split between “essential” and “non-essential” economic activities, platform work and the gig economy hint to increased relevance of the three types of intangible capital: human, social and intellectual. This will require an integrating perspective, if severe economic and social effects are to be avoided in the immediate future. The model we propose aims to show how, by taking account of the human, social and intellectual capital, better policies can be developed as regards labour market efficiency and efficacy.

Keywords: Labour market, “de-socialising”, Intangible capital, Socio-economic categories, Economic policies

JEL Classification: J08, J24, J68

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CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

1. Introduction

Recent economic developments, at micro-, mezzo- and macroeconomic level have shown clear signs of changing economic and social models at both international and European level. Technological progress which contributed for many decades to improving competitive advantages, work processes and quality of goods and services, has entered into a new stage, where digitalisation, Artificial Intelligence (AI), and automation are implemented at high speed and change the labour market landscape more than in past decades. How work will be shaped in the future, how labour force will be impacted and how countries can meet the new challenges, including here the member-states of the European Union have been long debated, and are still one of the most critical issues. The new economy taking shape currently is increasingly more dependent on intangible capitals, on the outcomes of how financial, technological and human capital are used effectively in a permanent interplay for ensuring economic growth and welfare.

Labour markets have shown signs of distress for many decades now, and polarisation has turned into reality in both developed and developing countries. Ultimately, economic growth, development, sustainability and resilience will be decided on the labour market, where the impact of the changing business models, and of the economies show visible results based on how they affect socio-economic groups.

Our paper proposes therefore an approach which underpins the role of two new key-types of intangible capital which will be determinant for the economic and social development in the future: the social and intellectual capital. Introduced recently in the specialised literature, these two types of capital are fully justifiable when considering the digitalised and automated environment which has spread out from high-tech enterprises to the smallest businesses, entering also the world of entertainment and culture. The findings show that policies need consistent improvements if the aim is to reduce polarisation which might lead to discontent, and this, in turn requires adequate monitoring of the entire chain consisting of human, social and intellectual capital, if the intention is to provide for improved labour market conditions and full employment of the labour force.

The paper is structured in two chapters: in the first chapter we discuss the main definitions of human, social and intellectual capital, and how the interaction between these three types of intangible capital determines wider economic and labour market outcomes. Further, we propose the creation of a dashboard for monitoring the progress in accumulating social and intellectual capital at macro-level, based on how the current situation regarding human capital as the source for generating the other two types of intangible capital. We suggest, based on the data collected by the Institutional Profile Database -CEPII some indicators that might be employed for monitoring and improving social capital at country level, by referring to some selected countries of the EU-27, based also on data availability. We suggest that

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

social capital is the main pool intermediating the relationship between human and intellectual capital and we draw attention to the fact that the pandemic period cannot be considered as the single event that contributed to the rather ‘stagnant’ human capital development at national level. The second chapter shows why the labour market is caught between traditional and dystopian, a fact only highlighted by the current pandemic period. We used a sample of developed and developing member-states of the EU-27, to show how certain socio-economic categories became more vulnerable and how the labour market under the technological pressure turned increasingly more ‘de-socialised’ as the traditional policies can no longer attend to current issues. We show that the current-state-of-affairs has evolved even during the pandemic and while many gains in jobs were lost, at the same time, the countries which had good results as regards (macro-) social and intellectual capital registered positive results in dealing with the impact of the pandemic on the economic and social life. We conclude by suggesting the development of a new framework for estimating labour market developments based on several indicators that go beyond the traditional macroeconomic assessments and consider IT and AI solutions and their outspread in estimating the present and future potential and requirements of the labour market, fact which implies monitoring far better social and intellectual capital.

2. Human, social and intellectual capital for understanding labour market developments

The theory of human capital is well known as its incipient origins might be found in the writings of Adam Smith (1964), who debated on the income differences originating in the net advantages and disadvantages of one type of labour over another.

Human capital theory gained momentum after the second half of the 20th century, being promoted by Becker (1964) and Mincer (1981), who tie human capital to specific particularities of the labour market, respectively the costs for learning and/or apprenticeship, which also play a role in deciding about present and future individual incomes. Moreover, investments in human capital are an implicit and necessary condition for ensuring economic growth, and thus these should not be regarded as costs in dealing with human capital development. Nonetheless, this theory ignores the strong social component, which is represented in the theory as the other type of intangible capital, respectively the social capital. An argument regarding social capital is expressed by Acemoglu et al. (2014) who consider that a determinant role for human capital is the historical and political context, implicitly the social and cultural framework in which human capital is shaped.

The first theoreticians of social capital (Bourdieu, 1986; Coleman, 1988; Putnam, 1993) regard it as a resource that can be accessed based on social networks and links generated in various contexts, with own productivity and profitability, for their members, but

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

nonetheless, though reflecting features close to social cohesion and community not overlapping the later (Ferlander, 2003). One of the more extended approaches (Scrivens et al. 2013) suggests four dimensions for addressing and estimating social capital, respectively (i) personal relationships; (ii) support provided by the social network; (iii) civic commitment; (iv) norms of trust and cooperation.

If we consider the association between human and social capital, we might notice that their strong relationships generate a considerable output that might contribute to or hamper economic growth, social development, even culture, as well as to the medium- and long-term resilience and sustainability of countries, and regions.

Technological progress and the use of digital solutions and artificial intelligence (AI) points increasingly more to the possibility that the interactions, and their outcomes, between human and social capital, generate a third intangible type of capital, which is essential for an economy and society driven by knowledge, and which is introducing wide-scale automated, digitalised and even AI solutions: the intellectual capital.

2.1. Brief considerations about the definition and development of intellectual capital

Intellectual capital has an even shorter history, but gains increased importance in particular for the future labour market influenced by the lessons learned before, but more strongly during the pandemic. The current uncertain post-pandemic period only contributed to highlighting the decisive role it might play, as just like the other two types of intangible capital it depends essentially on the quantity and quality of generated knowledge, as result of human action, decisions and interests. Moreover, the needs of the new emergent type of capitalism that aims to complete a decarbonised economy, in the conditions of resilience and sustainability, will require increased potential in areas generating social and especially intellectual capital, that in turn would assist institutional changes, support increased acceptability and adjustment to new technological solutions in all economic fields and activities and contribute to creating ‘new rules’ for ‘new players’ like the ones involved in platform work, or other emerging types of work, and which will require the creation of own institutions and mechanisms in on medium to long term.

A first definition indicates that it is the type of intangible capital encountered inside all types of organisations, firms and companies which plays a particular relevance for innovation especially at company level (Bounfour et al. 2005; Galende, 2006; O’Connor et al. 2006; Mollina-Castillo et al. 2009). To this we add the statement of Edvinsson and Malone according to which the relevance of intellectual capital will increase inevitably, due to the natural course of historical evolution, technological pressure and diversified investment flows, especially in knowledge (Edvinsson and Malone, 1997).

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

The necessary caveat is that intellectual capital operates as a specific type of capital at company level, while national intellectual capital is the aggregated effect of factors that ensure economic growth, social development and the national competitiveness that contribute to ensuring investment flows and increases the quality of life in general, and quality of life at work. Hence, another definition, which is much closer to our suggestion regarding the creation, monitoring and improvement of a national intellectual capital as complex indicator, is the one proposed by Lin et al. (2011) who attempts to define national intellectual capital as the aggregated outcome of human, market, process and renewal capital along with the available financial capital.

In our opinion, the component factors of human and social capital, as well as the presence of high-tech SMEs in various fields, including research-development and innovation, would provide a much better image about national intellectual capital as they are closer to the place where most benefits, opportunities and risks related to it are to be found, respectively the labour market.

Thus, our paper puts forward an extended understanding of intellectual capital defining it as a common good that can be gained or lost based on policies promoting or discouraging certain developments in fields like education, health and access to health care services (social), and economy by encouraging, for instance, the development of enterprises either large, medium or small that generate creative solutions, innovations and viable jobs that counteract the current trend of increased gaps in incomes' level and contribute to improving living standards for all. Naturally, this implies a rather direct relationship between human and intellectual capital, but also a mediated one, based on the creation, existence and development of social capital, nurturing new types of coordination, and cooperation, creating the platform for a common vision and strategy about the goals of the respective societies, and even communities. Social capital, due to the intricate relationships created at family level, and in the daily interactions, becomes determinant for life choices like career-path, professional and personal development, etc. The intellectual capital can be regarded, from this perspective as a unique form of capital, evolving in time, and being the actual engine behind crucial adjustments to technological, economic and social changes, as well as being the medium guaranteeing the renewal of some essential components of human capital. Thus, it might be considered as potential indicator that would suit the future and improved dashboard going beyond GDP. The question is whether the discussion might be extended to considering the existence and role of the national intellectual capital, and how it may, or may not contribute to improving human capital resources at national and sub-national level.

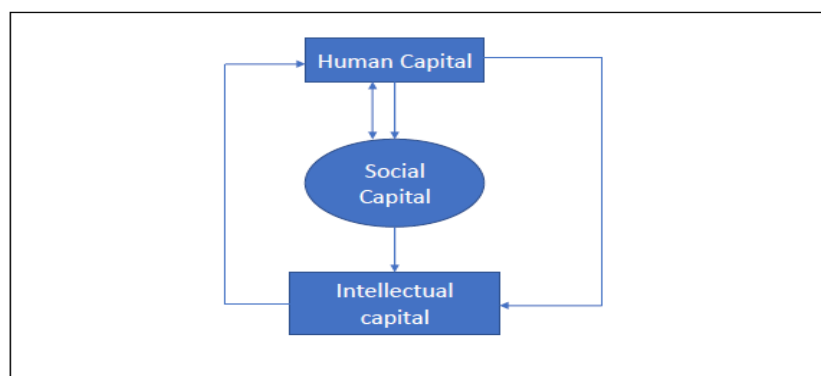
For creating such a dashboard, the first step is to consider which indicators could be of assistance, in constructing the new framework to be used as a tool in developing labour market favourable policies that in their turn translate into fulfilling the expectations of going beyond the GDP.

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).

Labour Market Challenges: Will There Be “Dystopian” Risks?

The relationships are intricate and mutually interdependent (Figure 1), determining important aspects regarding economic growth, welfare and wellbeing, thus their estimation becoming of importance for ensuring the achievement of the goals of the Green Deal Agenda and of building more resilient societies in the future for dealing with the post-pandemic future.

While the relationships between human capital and social capital are mutual, direct, the two being in permanent interaction, we consider that the relevance of intellectual capital is less obvious as regards social capital, as social capital can be regarded as an ‘intermediation’ pool for accumulating intellectual capital, while human capital is the essential basis for obtaining increases regarding it.



Source: Processed based on Edvinsson and Malone, 1997

Figure 1. Interrelationships between the three types of intangible capital and their analysis framework from traditional and institutional economic perspective.

In this framework, we propose a brief analysis of these three types of capital, and their accumulation in the last years, and the impact these developments had on the labour market regarding competitiveness, but also the need for improving policies on preparing the labour force and various socio-economic groups for the future challenges of the labour market.

2.2. Current situation on the labour market and the relationship with the three types of intangible capital

Human capital is defined mostly as the aggregate effect of education expressed in skills and knowledge and resulting in productivity, based on cumulated health outcomes.

In this respect, Romania has a lower average than Europe and Central Asia countries and High-Income Countries, as a child born in the 2020 COVID period will be only 58%

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).

Labour Market Challenges: Will There Be "Dystopian" Risks?

productive as opposed to the full potential to be achieved if enjoying complete education and health. Moreover, the HCI decreased for the country from 0.60 in 2010 to 0.58 in 2020. In Bulgaria, for the same indicator, we have a productivity indicator of 61%, while the HCI value decreased also from 0.64 to 0.61 in the period 2010 to 2020. In Poland productivity at full age would be of 75%, while in the period 2010-2020, the HCI value increased from 0.70 to 0.75. In Hungary, the productivity will be at 68%, and the HCI value decreased for the same 2010-2020 period from 0.69 to 0.68. As regards the FMSCC, these values show the same variations, with a productivity of 69% in the future for a child born in 2020, and decreasing values of HCI can be observed in 2010-2020, it dropping from 0.71 to 0.69. In Spain, the situation is different, as the productivity of children currently born will be of 73%, and the HCI values increased from 0.71 to 0.73 in 2010-2020. In Portugal, the productivity will be of 77%, and the HCI values increased from 0.74 to 0.77. In Austria, the productivity will be by 75%, while the values of HCI increased from 0.74 to 0.75. In the OMS, the values are largely comparable to the ones in the FMSCC (Table 1). Nonetheless, it is concerning that Romania, together with Bulgaria are the two countries with concerning values as regards the expected years of school and learning adjusted years of school (actually the smallest values), and the impact is considerably, from predictive perspective on labour market outcomes regarding economic perspective, the building of the social and intellectual capital in the future.

Table 1. Human Capital Index 2018 and 2020 for selected EU-27 member-states

Country Name	Probability of Survival to Age 5		Expected Years of School		Harmonized Test Scores		Learning-Adjusted Years of School		Adult Survival Rate		HUMAN CAPITAL INDEX	
	2018	2020	2018	2020	2018	2020	2018	2020	2018	2020	2018	2020
Austria	1.00	1.00	13.9	13.4	525	508	11.7	10.9	0.94	0.94	0.79	0.75
Bulgaria	0.99	0.99	12.9	12.3	498	441	10.3	8.7	0.87	0.87	0.68	0.61
France	1.00	1.00	14.0	13.8	506	510	11.3	11.3	0.93	0.93	0.76	0.76
Germany	1.00	1.00	13.9	13.3	528	517	11.7	11.0	0.93	0.93	0.79	0.75
Greece	0.99	1.00	12.9	13.3	474	469	9.8	10.0	0.94	0.93	0.68	0.69
Hungary	1.00	1.00	13.0	13.0	516	495	10.7	10.3	0.87	0.88	0.70	0.68
Italy	1.00	1.00	13.6	13.3	514	493	11.2	10.5	0.95	0.95	0.77	0.73
Netherlands	1.00	1.00	13.8	13.9	530	520	11.7	11.5	0.94	0.95	0.80	0.79
Poland	1.00	1.00	13.2	13.4	537	530	11.3	11.4	0.89	0.89	0.75	0.75
Portugal	1.00	1.00	13.8	13.9	520	509	11.5	11.3	0.93	0.93	0.78	0.77
Romania	0.99	0.99	12.2	11.8	452	442	8.8	8.4	0.87	0.88	0.60	0.58
Spain	1.00	1.00	13.1	13.0	514	507	10.8	10.5	0.94	0.95	0.74	0.73

Source: World Bank – The Human Capital Index, 2018 and 2020

One research question is whether the lower outcomes regarding HCI for Romania, are simply the effect of the pandemic or, rather, there are some other factors that contribute and tend to worsen the trend.

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

Some answers might be found by considering institutional/social factors, like trust, credibility of the economic/social communication from the governmental structures, especially with respect to labour market and labour market efficiency, which implies, for instance, the capacity to retain or to attract talent, and allowing for upward mobility based on merit. Other indicators could be, for instance, also the way society can mobilize itself, and how the willingness to become involved in formal or informal voluntary activities could be also indicative for the overall capacity to adopt common visions and strategies relevant for both economic and social development.

The relevance of this type of data has been recently brought to the attention at the EU-27 level, and monitoring has begun, the first Eurostat monitored data being available for just a couple of years, since it was acknowledged that social capital, and economic institutional indicators are just as important as traditional indicators in designing and projecting for economic growth and sustainable development, and especially when the issues are related to the human capital and the two types of intangible capital that are not only generated by it, but are also a premise for the future improvement of human capital.

The debate about social capital is still ongoing, but we suggest that the capacity of a society to attract and retain talent, along with trust and confidence in economic/social or political information of the governmental bodies, and how social upwards mobility is facilitated based on merit, are some indicators that need further development and improvement, if we want to clearly assess and formulate sound economic and social policies, the effects of which are first visible on the labour market.

The latest information available, for social upward mobility based on merit, together with other factors relevant for social cohesion which is essential for increasing competitiveness of a country and ensuring economic growth is the one of the Institutional Profile Database managed by CEPIL. According to these data, we notice that Romania registered some weak scores compared with the other countries regarding some of the relevant components (Table 2).

Table 2. Human Capital Index 2018 and 2020 for selected EU-27 member-states

Country	Capacity for sectoral reform	Public-private cooperation	Coordination in the public sphere	Long-term vision	Adaptation and Innovation	Public support for Innovation	Labour market rigidity	Mobility of workers	Importance of merit to upward social mobility
Austria	2.20	2.67	2.50	3.00	2.67	3.00	3.00	3.00	3.00
Bulgaria	2.60	2.67	2.00	1.00	2.33	2.25	3.00	2.00	3.00
Spain	2.60	2.67	1.50	2.00	2.33	1.25	4.00	2.00	2.00
France	3.40	2.67	3.00	2.50	2.67	2.50	3.67	2.00	3.00
Greece	1.40	2.00	1.00	0.00	1.33	2.25	2.00	0.50	3.00
Hungary	3.00	2.67	1.50	3.00	1.33	2.50	3.00	2.50	3.00
Italy	2.60	3.00	2.00	1.00	1.33	1.75	4.00	1.50	2.00

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).

Labour Market Challenges: Will There Be “Dystopian” Risks?

Country	Capacity for sectoral reform	Public-private cooperation	Coordination in the public sphere	Long-term vision	Adaptation and Innovation	Public support for Innovation	Labour market rigidity	Mobility of workers	Importance of merit to upward social mobility
Netherlands	3.20	4.00	3.50	4.00	3.67	2.25	3.00	3.00	4.00
Poland	2.80	2.67	0.50	3.00	2.00	2.50	2.67	1.50	3.00
Portugal	3.60	3.67	3.00	3.00	3.00	2.75	2.00	2.00	3.00
Romania	1.80	1.67	0.50	1.00	1.33	2.25	3.67	1.50	2.00

Source: CEPII – Institutional Profile Database 2016

Considering the current context influenced by the effects of the pandemic and by the newly arousing geopolitical conflicts, these indicators of social capital show that Romania has a rather below average performance in comparison with the other selected member-states, the most critical being those regarding the capacity to reform at sectoral level, to cooperate between major public and private stakeholders, which is to be expected. However, most concerning is the absence of a long-term vision, where Romania is second last, a weaker long-term vision being only registered for Greece, a country with which we have comparable attitudes also regarding adaptation and innovation (just as Hungary, and Italy). Another question is about how merit is relevant for upward social mobility, as in Spain, Italy and Romania there seem to be some barriers, as merit plays just an average role in upward social mobility – an issue concerning for the involvement of youths in both education and training, and in improving their skills, and in harnessing their competitiveness on the labour market.

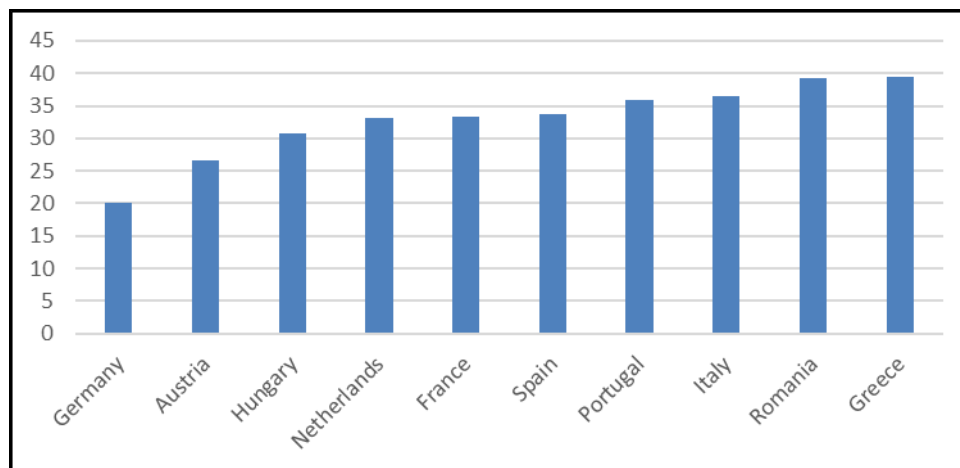
The rather weak results, from among which we selected the two most relevant, respectively the Human Capital Index and some of the indicators related to the social capital that assists the development of both human and of the proposed national intellectual capital, are indicative for the next considerations, relevant for computing this new suggested type of intangible capital at national and EU-27 level.

In this respect we present a few findings regarding the engines of economic growth and employment in the selected member-states, at SME level, which could be regarded as the incubator for the intellectual capital available at national and subnational level.

Considering the outcomes regarding education as reflected by HCI, it is not surprising that Romania registers a rather high value when analysing skills' mismatch. There are concerning signs that a large number of people are employed in other fields than the ones for which they have trained. The latest available data, collected from OECD, show that in Romania and Greece there is the highest skills mismatch compared with the other countries reviewed in 2016, and it might be assumed that this situation has worsened and not improved because of the pandemic in the current period (Figure 2).

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).

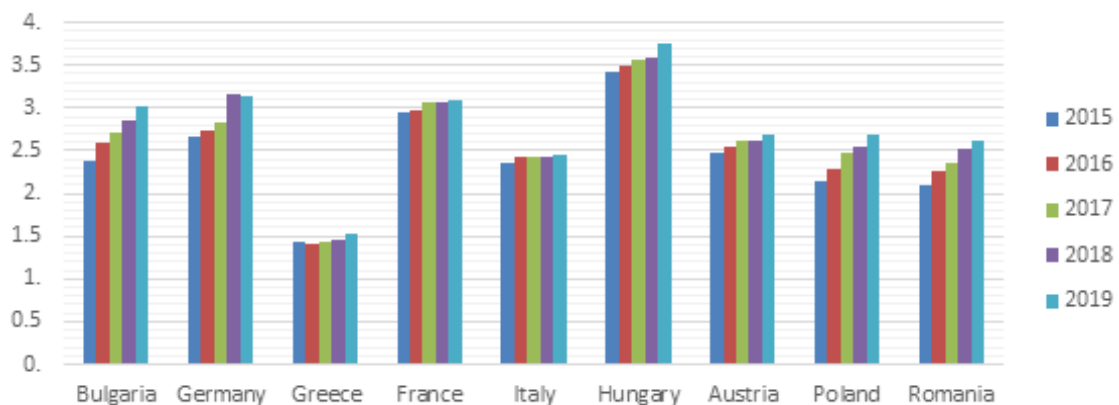
Labour Market Challenges: Will There Be “Dystopian” Risks?



Source: OECD, Skills for Jobs database; European Investment Bank, Investment survey 2018

Figure 2. Skills mismatch for the age group 15 to 64 years of age in selected member-states*, 2016*Note: The figure displays only the countries from the EU-12 member-states that were available in the database*

Leaving aside the skills' mismatch, we take a step further and consider the numbers of people employed in the IT-industry as share of total employment, as this is a relevant indicator for the competitiveness of a labour market that will be increasingly more dominated by IT solutions, irrespective of the field of activity.



Source: Eurostat, online data base (ISOC_BDE15AP)

Figure 3. Share of employees in IT in total employment, 2015-2019 for the selected member-states**Note: No data available for Netherlands and Portugal*

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

The low number of employees in IT activities, while corresponding to the shares in all the other selected member-states, is not encouraging if we associate it to the outcomes in the SME sector, where there is more readiness and willingness to adopt high-tech solutions and innovations almost immediately as they emerge. It is concerning if we relate the findings regarding the most relevant aspects to the data about the overall situation on the labour market and the labour market slack.

Hence, while the SME sector in Romania registered the highest growth rate in 2021, despite the difficulties brought about by the pandemic year 2020, respectively by 13.3% in value added and 2.6% in employment, that is above the results for large enterprises growth (9.8% value added, and 0.9% employment), and registering outcomes above the EU-27 regarding employment in SMEs of 65.8%, compared to 64.4% (EU-27) and 58.0% value added (51.8% EU-27), there are many issues that should be tackled, for instance by innovative public-private cooperation forms when addressing issues of innovation, digitalisation and the overall research-development environment.

It might be found that expenditures in research-development continue to be not only below the national target of 2% of the GDP, but also below the EU average (2.12%). In 2020, these expenditures were of 0.28% for the private sector, and 0.19% for the public sector, while the total RD expenditures were just 0.47% of the GDP.

This is reflected also as regards the ‘appetite’ for innovation, where Romania registered the weakest results from among all EU-27 countries, ranking last, despite of slight increases over the period 2014-2021. These poor results impact on the attractiveness and possibility of creating new jobs for the existing and future labour force, especially for the young generations whose opportunities are even more limited, as the labour market will require more diversification, as automation and use of AI will change entire sets of occupations. Otherwise said, the country’s competitiveness, in all economic sectors, but also what regards employment is hampered by the fact that innovation shows low levels in the most dynamic sector, respectively SMEs. For instance, in Romania, in the period 2020-2021/2022 only 7.6% SMEs introduced business process innovations, and only 9.4% implemented product innovations, which is much below the EU averages by 40% (on business process innovation) and 28.7% (on product innovations).

If we regard the three types of intangible capitals (human, social and intellectual) as imperatives of the next period, especially considering the uncertain post-pandemic context, we find that the Romanian labour market, viewed through the perspectives offered by including some relevant indicators that might be used as proxies for calculating a national intellectual capital, we find that considerable risks are encountered as regards all three types based on outcomes of the education and health systems, but also of the social components contributing to the building up of the social capital which could harness

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

improved outcomes for intellectual capital at firms' level, but more importantly for the creation of a national intellectual capital.

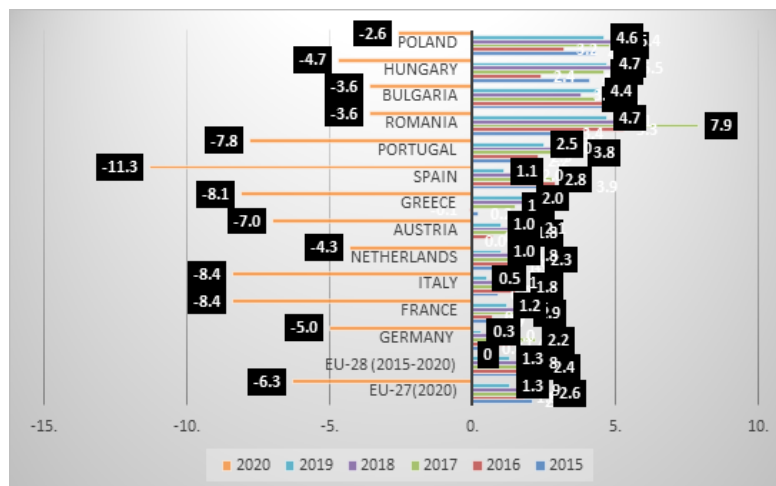
3. Labour Market between traditional and dystopian

The labour by the beginning of the 21st century was already challenged by the scissor-like friction between technological pressure and technological perks for employers and employees, and even for self-employed and freelancers. The economic-financial crisis of the period 2007-2011/2012 brought with it changes hinting at a possible 'de-socialising' of the labour market due to the increased tensions between old and new triggered by accelerated technological development. This development left several socio-economic categories more vulnerable, as the 'dispute' between cost- and labour-savings based on automated solutions on one hand, and the labour force being increasingly more threatened on the other hand can no longer be easily solved in the terms of former macroeconomic and social policies.

In our paper, for making more visible the reasoning beyond our approach, we have selected three major groups of countries, which were considered due to historical, geographical and socio-economic reasons, as these reflect in our opinion major labour market policy trends for the EU as a whole. Moreover, they reflect the division into developed countries, respectively old member-states, former member-states of convergence and cohesion and new member-states, respectively: Germany, France, Italy and Netherlands (OMS), Austria, Greece, Spain and Portugal (FMSCC), and Romania, Poland, Hungary and Bulgaria (NMS).

We begin by mentioning that after the economic financial crisis, the resumed economic growth expressed in increases in the real GDP per capita rate began to show signs of slowing-down already by 2018-2019 (See Figure 4).

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).

Labour Market Challenges: Will There Be “Dystopian” Risks?

Source: (NAMA_10_GDP, NAMA_10_PC)

Figure 4. Real GDP per capital growth rate 2015 – 2020

At the same time, efforts were intensified for approaching the economy and development of the society from a perspective “beyond GDP” as it was noticed that, in particular regarding the developments on the labour market, for estimating welfare and wellbeing at individual and national level was no longer enough (Sen-Stiglitz-Fitoussi Report (SSFR), 2009) to consider just the effects of economic growth per se. It drew attention to the fact that for wellbeing, health, education, social connections and relationships, the environment next to other types of uncertainties, whether economic, political or of any other nature to which personal/collective insecurity might be added, play a significant role in evaluating properly economic performance and social progress.

The pandemic outbreak by the end of 2019 and the rapid expansion to Europe, Middle East and the rest of the world, occurred in this context which forced and pushed developments, in particular for FMSCC and NMS by at least 25 years, and even developed countries were affected just the same, according to experts (McKinsey et comp, October 2020). Moreover, the two years of the pandemic were concluded in a rather uncertain climate, that has brought conflict to the borders of the EU-27 and which has brought into question the ambitious agenda of transitioning to a decarbonized economy.

Naturally, all these developments reflect simply a new stage of transformation for capitalism, or rather of the capitalism models present in the EU, and at world level as well, as they evolve according to the changes triggered by digitalization and the increasing presence of Artificial Intelligence. These changes, far from referring only to business chains, practices, etc. affect more and in particular the labour market, augmenting already existing processes related to gig economy and platform work, and other working solutions that were

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

either enhanced or became obsolete during the pandemic. Moreover, they underpin the quiet but certain emergence of new socio-economic categories tending to become the “aristocracy of labourers” and this signals the birth of “platform capitalism” (Funda-Ustek et al, 2021) consisting mainly of analysts and other digitally skilled workers who operate in a far different world than the one of Fordism or Taylorism. However, this also brings to the fore the issue of the rising inequalities on the labour market, and new socio-economic categories are at risk, as the tendency of polarization in top-jobs characterised by high wages/earnings and low-jobs is more visible, fact confirmed by the pandemic and post-pandemic period, when the hardest-hit had been low-wage earners from industries and services.

3.1. Specific labour market developments over the pandemic and post-pandemic period: effects and implications

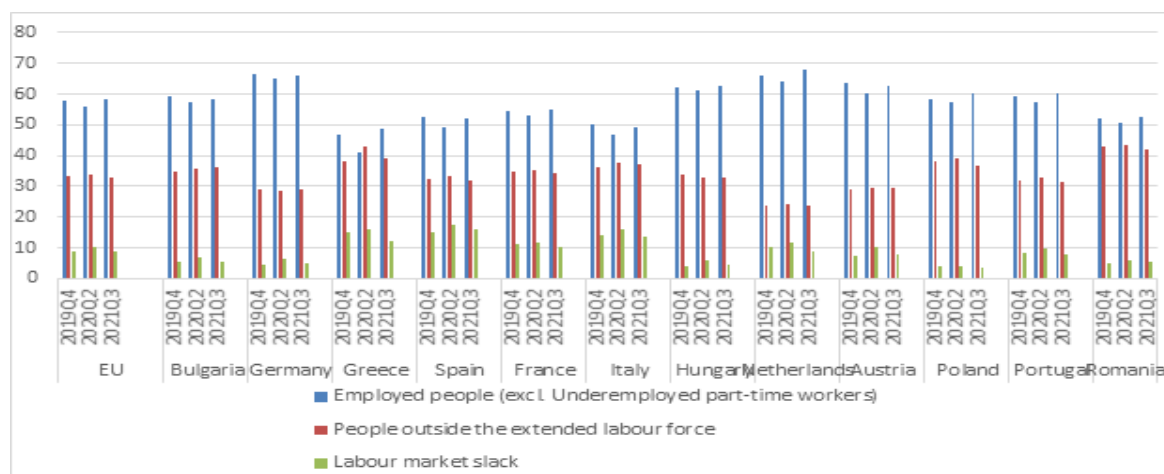
The beginning of the pandemic signalled a change in the labour market evolution: the pre-pandemic increases in employment were brought to a halt, and as economic activities began to decrease, some people entered unemployment even if it was regarded as ‘temporary, technical unemployment’, while some individuals in unemployment were pushed out of the labour market as their job search possibilities, or their availability to work became limited.

At the same time, the labour market slack, that is the total unmet demand for employment increased over the period marked by the pandemic, as it increased for the extended labour force (age group 15 to 74 years) to 14.5% in the second quarter of the year 2021, and in this total, unemployment represented less than about 7%.

A country-by-country analysis for the 12 selected member-states shows a rather disparate image, with Romania recording average values for the categories included in calculating labour market slack, and also the labour market efficiency in recovering in the post-pandemic period (Figure 5).

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).

Labour Market Challenges: Will There Be “Dystopian” Risks?



Source: Processing after Eurostat (data online code: *lfsi_sup_q*, *lfsi_emp_q* and *une_rt_q*)

Figure 5. Labour market developments over the period Q4 2019-Q3 2021

Most concerning is the fact that people outside the extended labour force (formerly known as inactive people) are present in concerning shares in Romania, as compared with the other eleven-member states considered, at the beginning of the period, respectively Q4 2019 by 42.9% and by the end of the period this share decreased by 0.8 pp (42.1%), after an increase to 43.3% in the second quarter of 2020. In the selected group, it shows the highest shares for this category of individuals.

However, most concerns are still related to young individuals, both male and female, where there were significant drops in almost all of the selected EU member-states, the largest drops being recorded in some FMSCC, like Portugal and Spain with decreases of more than 5 pp, whereas another ‘mixed bag’ of old member-states, former convergence and cohesion member states and new member-states recorded smaller decreases (Hungary, France, Austria and Romania).

Also, in terms of the aimed objectives of recovery, we notice that Romania has very good outcomes, the increase exceeded the level from the third quarter of 2019, but to a lesser extent, with an increase around 1.50 pp for both men and women. A higher increase in the employment rate was registered in France, as compared with the third quarter of 2019, while several from the other selected member-states failed in recovering completely after the pandemic and remained below the rate of 2019, respectively Portugal, Bulgaria and Poland (Figure 6).

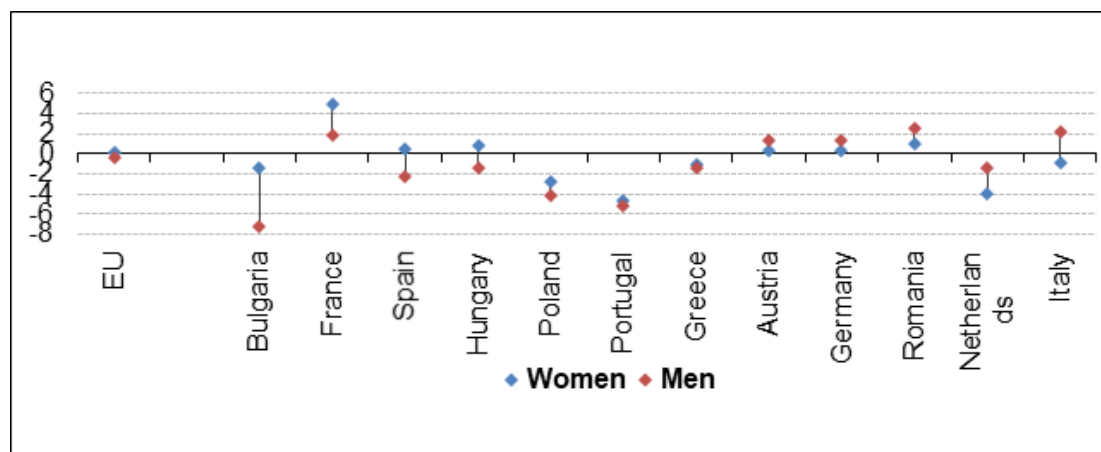
Thus, it might be considered that there is more closeness in terms of convergence and cohesion between the FMSCC and NMS, and that the old member-states fared better due to

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).

Labour Market Challenges: Will There Be “Dystopian” Risks?

their advancement. Nonetheless, we consider that the explanation does not rely only on the macroeconomic conditions, but also it conveys a message about the development of other, often times disregarded types of intangible capital, that will play a key-role in the digitalised and knowledge-based economy and society, and which are put to best use when we compare uses of labour and high-tech in the SME, but also in the large enterprises sector.

In the immediate future, the combination of human, social and intellectual capital will have a key-role in ensuring the overall achievement of EU-27 objectives contained in the corresponding recovery and resilience plans, due to the impact they will have on instrumentalising and making use of all resilience and recovery facilities made available based on various European initiatives.



Source: Eurostat (*lfsq_pganws*) and (*lfsi_emp_q*)

Figure 6. Change in the share of employed men and women Q3 2019 to Q3 2021, in pp, not seasonally adjusted

In this context, a dystopian undercurrent threatens the labour market. This threat might lead to social and political discontent in the absence of good policies for ensuring the creation of better, more resilient and sustainable jobs, which also provide for better working conditions and incomes in both Global North and Global South (Paus, E. et al., 2018). One of the questions that are increasingly more often asked is whether the current level of technology and automation use is adequate and adjusted to the overall level of development for stakeholders of both public and business environments and for the society at large. This contributes to increased concerns as regards the evolution of labour, as several tasks are automated and the new tasks for which labour could hold competitive advantage are still under development, or need to be created in the interplay between various types of innovation, and creative entrepreneurship in order to reduce the transition period in which inequalities continue to increase due to the imbalance between

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

implementing automation and continuing to maintain employment at levels that hinder the creation of even greater inequalities than the existing ones (Acemoglu, D. et al. 2018).

3.2. Proposing a new framework for estimating labour market developments

In the complex context of the current post-pandemic period, considering the new developments in both public and private sector, we consider that labour market evolutions cannot be considered leaving outside the developments in industry and services which are influenced to an increasingly higher degree than even in the pre-pandemic period by technological developments and the intervention of more and more IT and artificial intelligence (AI) uses.

One way of identifying how IT, AI and other high-tech solutions impact the labour market, is to analyse employment rate trends depending on educational attainment level. The obvious observation is that the higher the educational level, the higher also the employment opportunities for current and future generations on the labour market. (Acemoglu, D. et al. 2021). However, the next observation which will become increasingly more relevant is related to digital skills and the flexibility in making use of digital, automated and AI solution in daily jobs in the case of the labour force.

Therefore, we consider that a new approach is necessary that departs in certain regards from traditional economic evaluations by considering and introducing analyses about the three major intangible capitals existing in the economy (human, social and intellectual). The present paper is a first attempt of the authors to present such a perspective for the groups of selected countries. In the following section, we present the methodology and some preliminary results, followed by some brief conclusions and policy recommendations.

People in employment, people outside the extended labour force, and the labour market slack play in this new framework and important role, as their combined action determine the quality of human, social, and as we suggest of the intellectual capital at national, and regional level, and the overall competitiveness of economies in the process of achieving economic growth in a context requiring resilience and sustainability.

4. Conclusions

Our analysis was based on analysing the evolution of the human development index and of the human capital index for the same period preceding the pandemic. A first necessary step is to consider the present state of affairs as regards the Human Capital Index for the selected countries (Table 1), an argument for promoting our view for including institutional economic considerations and estimates in policy formulation as regards labour market.

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

This is the first step in developing further a framework for the measurement of the possible social capital trends in the selected countries of the EU-28/27, but especially for considering the role that education and health will have to play in the period of the current pandemic, but especially in monitoring the exit from and the first post-pandemic period.

Leaving aside the health aspects, which are analysed in a separate paper, the economic part of the dashboard will have to take into account in policy formulation addressing labour market the following components:

- the evolution of platform work as regards specific legislation and policies developed for addressing this segment of the workforce;
- short-work (Kurzarbeit) and the impact it has for diminishing social exclusion;
- evolution in the numbers of newly entered into unemployment, and main socio-economic activities contributing to unemployment growth;
- number of bankruptcies, and insolvencies for the SME sector, and especially in the case of start-ups;
- monitoring and improving the types of aid, lending and tax exemptions for actors in the private sector and improving the capacity of public-private partnerships.

The social aspects will have to begin by considering the perks and pressures represented by the various formulas of work identified as ‘COVID pandemic solutions’ but that could have some benefits and continuity in the future by taking account of how policies in this regard are received by the population. It should focus a lot on the types of benefits, aids and supports for the economic active segment of the population, associated with constant measures regarding the degree of trust and confidence of the population, and paying more attention to encouraging meritocracy in both public and private sectors. In this respect, we would like to mention that Romania has a relatively low performance as regards the institutional indicators for meritocracy-based career/profession advancement, and for the capacity of cooperation between the public and the private sector.

The decisive social aspect that should be carefully analysed and improved is education, the future policy needs recommending an overhaul from the ways of ensuring access to education, to improved correlation between various forms of education and (at least) the main stakeholders able to generate jobs in the changing labour market based on communication, coordination and cooperation for being able to anticipate actual labour market needs.

Overcoming the drawbacks of the pandemic while mitigating the challenges of the labour market which tend to even transform the nature of the capitalism, turning it into a capitalism determined by and operating according to the main infrastructural platforms be they tangible or intangible, will require improving also another institutional indicator regarding governance effectiveness at regional and national level.

CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be "Dystopian" Risks?*

The present paper attempted to show that the current measurements regarding labour market should extend their framework, by considering further (complex) indicators that show how social and intellectual capital develop at national, regional and even international level, as these two additional types of capital will contribute and play a key role in ensuring a competitive advantage in the future and in improving labour market outcomes. These indicators could also monitor the suitability and adequacy of technological solutions implemented so as to avoid creating new vulnerable groups while reducing risks and increasing inclusiveness of current vulnerable groups. However, we have found that only few databases are involved in monitoring, and even less countries in reporting, relevant data that can be used for building a sound framework for estimating social and intellectual capital. For instance, for the indicators proposed in the present paper, the last available data was from 2016, while for some other relevant indicators, like the ones regarding the integration of digital technologies at EU-27 level, some of the data are still too few for building a sound estimation model, while it would be essential, as this integration changes also business models and culture and, finally, how economies and societies develop. Next to, and together with other institutional economic indicators, the indicators for monitoring these two types of intangible capital will have a relevant role to play in shaping the future labour market as more sustainable, resilient and inclusive.

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CISMAS L.M., DUMITRU C. & NEGRUT T. (2022).*Labour Market Challenges: Will There Be “Dystopian” Risks?*

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