COMPETITION VERSUS LABOUR COSTS IN THE EUROPEAN UNION IN THE PERIOD 2006 - 2016

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Abstract

Competition and the preservation thereof at the country level represents the alpha and omega of current international economic shifts and labour costs continue to make up one of the most important factors that enable experts to determine the level of competitiveness. Labour costs, share of labour costs of total costs and unit labour costs provide particularly appropriate indicators with concern to determining the competitiveness of individual Member States of the European Union in the context of international shifts. The aim of the article is to ascertain whether individual Member States pose a threat to each other with respect to international trade or whether they are mutually complementary. And, indeed, whether they compete with each other as rivals or not, it is important that this question be addressed. The findings of the study are based on data obtained from Eurostat, the OECD and the UN Commodity Trade Statistics Database. The period monitored was from 2006 to 2016.

Keywords

Competitiveness, Labour Costs, Productivity, Unit Labour Costs

I. Introduction

The aim of the article is to examine historical data in order to ascertain whether European Union Member States are competitors (rivals) or whether they cooperate as partners in the context of the fact that, from the economic point of view, the Member States of the EU differ considerably.

The accession of a large number of countries to the European Union in 2004, which marked the most unconventional expansion in its history, was preceded by the emergence of a raft of concepts and theories that attempted to address the potential consequences of such an enlargement as mentioned by Rovná (2002). In the end, ten[2] of the twelve candidate countries were accepted for membership, all of which were economically weaker than the existing Member States. The integration of these countries led to the expectation of important developments in a range of areas: political stability and peace in Europe, the emergence of a more dynamic economic area capable of effectively competing with the United States and China, improvements to the working environment, the raising of the standard of living throughout the region, the enhancement of the level of legal protection for the citizens of these countries, and greater independence in terms of the production and supply of food, energy and raw materials. In addition to the positive aspects of integration, a number of perceived negative impacts have become apparent including the weakening of democracy in Member States, the suppression of competition between the integrated countries by European jurisdiction, the weakening of national sovereignty, etc. as mentioned by Sychra (2002). Moreover, in recent years, certain social trends have emerged including intolerance, nationalism and xenophobia as mentioned by Navrátil and Minarčíková (2015).

Those countries that were traditionally seen as more positive than negative are increasingly being faced with political problems. However, since the political aspect will always be present in human societies, the most important consideration is whether the various supporting pillars of the relevant

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[2] The countries consisted of: the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia. The integration process continued three years later when two countries that were not accepted in 2004 acceded to the EU in 2007, i.e. Bulgaria and Romania. Croatia joined the EU in 2013.

society are capable of absorbing the afore-mentioned emerging social problems. Clearly, the economy of the European Union as a whole represents one of the most important of such pillars.

It is becoming increasingly evident, however, that major conflicts are emerging even with respect to the economy. The integration process promised economic partnership and cooperation between EU member states versus the rest of the world. At the time of accession negotiations, the planned economic integration process was compared to a micro-level employee company model[3] according to which internal competition is not supposed to be as fierce as that from the outside world. It was envisaged that this internal competition would benefit the newly-acceding countries post 2004 and eventually result in the convergence of economically weaker countries with their richer counterparts. The idea was that weaker countries would experience growth in terms of productivity, the size of businesses and remuneration levels, thus raising the standard of living of the populations of accession countries to the level of the original (15) European Union countries. Although this was (wisely) not promised immediately, it was envisaged that the process of convergence would be clear for all to see. In other words, the accession countries of 2004 and later would gradually approach the economic indicators of the wealthier of the original European Union Member States. Moreover, it was supposed that this declared internal competition would initiate and level out economic conditions in the accession countries post 2004. Is it in fact realistic to suggest that such an aim can be accomplished through competition? The author proposes that labour cost indicators will help to determine the answer to this question with respect to economic developments over the last ten years or so.

II. Labour costs

From the macro-economic point of view, labour costs represent the sum of the costs associated with the functioning of the labour production factor and the reproduction of economic and social relations as mentioned by Kozelský and Vlach (2011). However, the two-year delay associated with the publishing of the results of the relevant statistical surveys presents a significant problem with respect to the monitoring of labour costs. At the time of writing, no data had yet been published for 2016.

Labour cost indicators consist of labour costs, the share of labour costs of total costs and unit labour costs.

The first of the labour cost indicators consists of labour costs, which has been calculated at different times through the application of different methodologies. This was due to the differing statistics available and the fact that no statistics were published with respect to this factor for many years. Van Ark and Monnikhof (2000) created a methodology for the International Labour Office in Geneva which calculated labour costs according to industry (based on estimates) and, subsequently, statistics on labour costs were compiled by Eurostat as we know them today.[4]

With concern to this study, the time series of all the indicators considered was from 2006 rather than the accession year of 2004 since most countries have no data available for 2004 and 2005; indeed, some countries have only published such data since 2010. It is fair to note that this is not the consequence of the statistical authorities of the respective countries neglecting their obligations in this respect but rather the transition from ESA95 to ESA 2010 methodology.

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[3] The idea of an employee company model implies the maximisation of the income of employees through profit sharing. Employee efficiency increases due to motivation to increase their level of remuneration. Moreover, further motivation stems from the psychological effect of participating in the work decision-making process. The political elite suggested that similar consequences, but at the macro level, would benefit the accession countries post 2004.

[4] Naturally, certain adjustments have been introduced over time.

Table 1 Monthly Labour Costs in Euro in the period 2006 - 2015

	Years									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium	3814.0	4113.2	4296.2	4414.7	4547.8	4719.0	4940.0	5037.5	5057.0	5053.7
Czech Republic	1030.6	1174.4	1380.0	1348.2	1470.0	1580.3	1480.0	1425.1	1392.0	1434.1
Denmark	4221.6	4355.4	4507.8	4610.8	4349.0	4466.7	4672.2	4741.5	4784.0	4847.9
Germany	3819.0	3270.6	3305.5	3295.9	3336.0	3436.1	3494.8	3507.2	3579.6	3670.8
Estonia	827.1	1099.5	1279.9	1174.9	1187.5	1263.3	1351.6	1430.6	1518.2	1589.6
Ireland	-	-	3853.3	3785.8	4337.4	4307.4	4484.9	4507.3	4522.2	4550.0
Greece	-	-	2713.6	2846.0	2861.7	2751.3	2688.6	2488.0	2443.3	2388.8
Spain	2196.7	2329.5	2688.5	2852.9	2949.8	3031.6	2990.9	2992.7	2983.9	3005.1
France	-	-	3879.2	3876.3	4058.7	4188.8	4258.9	4225.5	4259.4	4334.9
Italy	-	-	3786.3	3851.9	3968.6	4018.8	4002.7	4027.7	4049.3	4034.7
Latvia	-	-	-	-	886.9	927.2	950.9	996.1	1065.9	1129.5
Lithuania	-	-	-	-	847.8	852.0	913.0	951.2	993.4	1054.0
Luxembourg	4658.0	4265.2	4071.3	4349.7	4159.1	4279.9	4260.1	4390.4	4549.1	4582.9
Hungary	994.8	1218.4	1288.1	1162.9	1036.6	1076.8	1079.2	1119.7	1124.2	1149.5
Netherlands	-	-	3456.8	3506.1	3682.8	3744.6	3826.9	3923.1	4013.1	4029.0
Austria	3782.0	3865.2	3896.2	3891.6	3894.3	4050.3	4091.2	4176.9	4259.9	4341.6
Poland	878.4	1157.6	1247.0	1071.4	1164.0	1179.0	1269.9	1294.7	1330.1	1406.8
Portugal	1734.6	1826.5	1800.5	1831.2	1984.5	1960.4	2049.3	2060.4	2053.7	2087.1
Slovenia	1772.5	1752.9	1934.4	2004.0	2044.0	2064.9	2137.2	2119.1	2186.6	2222.5
Slovakia	711.4	917.9	1090.7	1127.3	1158.2	1195.3	1326.8	1358.5	1422.7	1461.7
Finland	3598.0	3882.6	3812.1	3931.6	4003.2	4085.8	4303.8	4373.3	4430.8	4512.8
Sweden	4242.0	4165.0	4258.1	3955.5	4578.0	4950.4	5029.3	5122.0	5001.3	5021.0
United Kingdom	3498.5	3266.0	2889.4	2586.6	2750.0	2737.0	3445.8	3345.9	3605.6	4143.2

Source: Eurostat (2018), OECD (2018)

Certain facts can be determined from the statistics on monthly labour costs in Euro. Certain similarities are evident from the division of labour costs into groups. All the countries that acceded to the EU in 2004 and later (except for Slovenia) are in the up to Euro 2000 group, while five countries lie in the Euro 2000 to 4000 group, i.e. Portugal, Slovenia, Greece, Spain and Germany. The remaining 11 countries, all of which are original EU Member States, have monthly labour costs in excess of Euro 4000. It is worth noting that Sweden and Belgium have exceeded the Euro 5000 per month boundary, and it is likely that Denmark will join this "exclusive" group in the near future.

As the data illustrates, no narrowing of the gap between these groups of countries has occurred over the last ten years and the labour costs of post-2004 accession countries remain much lower than those of their more developed counterparts. However, they have not profited from this clear competitive advantage. How is it possible, therefore, that countries with labour costs three times lower than those of certain other Member States (the biggest difference is in the order of almost five times) are unable to compete with those countries? The answer to this question lies in the degree of competitiveness.

The real competitors to the accession countries of 2004 and later consist of these countries themselves; they present practically no competition to the original (15) Member States, whose real competition similarly is made up of these countries themselves. In only a very limited number of sectors have post-2004 accession countries presented an economic threat to any of the original Member States.

The second of the labour cost indicators considered is the share of labour costs of total costs. This indicator is particularly important for those economies that are traditionally characterised by low labour costs.

Table 2 Share of labour costs of total costs in the period 2006 to 2015 in percent

	Years									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium	29.93	29.86	29.7	32.23	30.6	29.5	29.9	30.6	30.8	30.8
Bulgaria	22.78	21.96	23.27	26.13	27.0	25.9	26.4	28.6	28.0	28.6
Czech Republic	21.63	21.27	21.79	23.3	22.5	21.9	22.5	22.4	22.1	22.2
Denmark	34.63	34.34	34.15	36.33	35.2	34.3	33.7	34.2	34.4	34.8
Germany	33.74	32.87	32.71	34.57	33.1	32.2	33.0	33.5	33.8	34.4
Estonia	26.22	28.5	29.75	31.69	28.7	26.9	26.9	26.7	27.0	28.9
Ireland	-	-	-	-	27.1	28.8	27.7	27.5	26.6	18.8
Greece	37.53	37.13	37.5	39.08	38.9	38.1	36.3	35.0	35.0	35.3
Spain	30.55	30.77	32.48	34.97	33.6	33.1	32.6	32.6	32.2	32.0
France	35.30	34.97	34.83	36.48	35.3	34.9	35.0	35.5	35.7	35.8
Croatia	-	-	-	-	38.3	37.4	36.6	36.4	35.9	35.8
Italy	29.90	29.37	29.63	31.87	30.8	30.2	30.5	30.8	30.7	31.1
Cyprus	44.36	41.53	39.72	40.66	34.8	35.4	35.5	34.5	33.4	33.4
Latvia	25.58	28.4	29.53	28.05	25.1	23.7	23.7	24.7	26.4	27.7
Lithuania	33.57	33.72	31.96	34.33	31.2	29.9	30.2	30.7	31.8	34.3
Luxembourg	20.56	18.9	19.57	21.8	20.5	20.1	19.6	18.7	17.1	15.8
Hungary	26.39	27.44	27.12	27.78	25.4	24.8	25.2	25.1	25.1	25.1
Malta	28.53	28.09	27.77	28.72	20.4	20.0	19.9	20.2	20.5	20.5
Netherlands	33.14	32.99	32.54	33.91	34.0	33.1	33.1	33.5	33.7	33.7
Austria	-	32.75	32.2	33.8	32.7	32.0	32.0	32.2	32.7	33.1
Poland	26.81	26.07	26.92	28.11	28.4	27.4	27.6	27.7	28.1	28.1
Portugal	33.29	32.67	32.25	34.29	33.6	32.4	32.0	32.7	32.5	32.6
Romania	-	-	-	-	30.4	26.9	26.1	25.9	26.5	-
Slovenia	32.12	31.06	31.48	34.17	33.5	33.0	33.1	33.2	33.0	33.1
Slovakia	20.83	21.1	21.06	23.54	22.4	21.4	21.2	21.5	21.8	21.9
Finland	30.17	29.91	30.13	32.76	31.6	30.9	31.2	31.5	31.6	32.3
Sweden	33.04	33.15	32.44	33.91	31.9	31.9	32.7	33.6	33.7	-
United Kingdom	37.68	36.85	36.67	37.08	38.3	37.8	37.8	37.4	37.6	-

Source: Eurostat (2018), own compilation

The share of labour costs of total costs indicator can similarly be broken down into groups, i.e. countries below and above 30%. Eleven countries have values of below 30% and consist of post-2004 accession countries. Once again, Slovenia is an exception with a value of over 30%. The original member states Luxembourg and Ireland are also exceptions, with values well below the 30% threshold, the reason for which lies in the fiscal policy implemented by these countries which are often referred to as “tax haven policies”. They are *de facto* outlying values that will not be taken into account for the purposes of this study.

Those countries whose economies are still oriented towards the production of goods have a lower share of labour costs of total costs than do those whose economies are geared towards the provision of services. Countries with low labour costs focus on production that is more intensive in terms of

capital; however, these countries do not have enough of their own capital to ensure such production. It is no longer true that workers in the post-2004 countries work on machines that are over 20 years old, which is confirmed by the share of labour costs of total costs indicator. Capital has been provided to these countries from outside simply because they offer a cheap labour force.

Goods that are more demanding in terms of capital are produced in countries with cheaper labour forces, where the work is predominantly physical involving the assembly or construction of goods rather than mentally demanding. Consequently, the idea emerged that the post-2004 accession countries are merely workshops for the original member countries in the trade chain. The biggest problem concerns the behaviour of investors who divide the return on capital in a way that ensures that a much larger share of income is transferred to the company's headquarters than that which remains in the country of production. Under such circumstances, convergence as outlined above is simply not possible. Thus, a status quo is maintained in which the stronger business partner becomes wealthier while the weaker party receives enough "to keep the peace".

Unit labour costs makes up the third labour costs indicator considered in the study. This indicator forms a composite expression of cost pressures exerted in a given economy resulting from the workforce as mentioned by Jílek and Vojta (2001). Central banks monitor this factor as a matter of course with respect to the prediction of the rate of inflation (as an inflation cost factor) and the effective exchange rate. It is also used as an indicator of the competitiveness of the economy and makes up one of the factors influencing direct foreign investment. The concept of unit labour costs covers different content depending on the purposes and requirements of the relevant institution. One of the leading methodologies concerning this indicator was developed by Halvik (2005) for the Vienna Institute for International Economic Studies.

Unit labour costs are expressed at the national price level; however, for the purpose of comparison, they are often also expressed in the form of the so-called purchasing power standard. The first of the following two tables shows unit labour costs at national price levels and the second in terms of the purchasing power standard.

Table 3 Unit labour costs as a percentage based on national price levels in the period 2006 to 2015

	Years									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium	59.6	59.6	60.9	62.6	59.9	60.3	61.1	61.8	61.3	60.4
Bulgaria	46.1	46.1	47.9	51.6	49.9	48.2	49.9	53.9	56.2	56.2
Czech Republic	50.0	49.5	50.3	50.2	47.8	48.1	48.8	48.4	47.4	46.5
Denmark	56.9	58.3	59.4	62.4	56.4	56	55.2	55.1	55.1	55.2
Germany	56.4	55.1	55.9	58.4	55.8	55.6	56.5	56.5	56.5	56.4
Estonia	48.2	50.6	55.1	55.8	51.7	49.1	49.4	49.6	49.9	52.9
Ireland	48.7	50.4	55.4	56.1	49.6	48.3	47.4	47.9	46	36
Greece	53.9	53.5	53.6	55.7	54.3	53.1	52.2	49.8	49.5	48.9
Spain	54.9	55.3	57.1	57.9	57.7	57.1	55.6	55.1	55.1	54.9
France	57.3	56.8	57.2	58.9	57.4	57.4	58.1	58.3	58.5	57.9
Croatia	-	-	-	-	62.4	61.8	60.1	58.2	56.8	56.1
Italy	54.2	53.7	54.7	55.7	54.1	53.6	53.7	53.4	52.9	52.9
Cyprus	56.6	55	53.5	55.6	54.6	54.5	54.3	51.9	50.6	50.5
Latvia	50.0	53.1	56.7	52.9	48.6	44.6	45.2	46.9	48.4	50.9
Lithuania	50.5	49.7	50.1	51.1	45.9	44	43.8	44.5	45.5	47.6
Luxembourg	48.4	45.8	49.9	53.8	52.7	51.5	52.5	52	50.8	50.6
Hungary	50.9	52.9	52.5	52.1	47.8	47.5	47.7	46.6	46	45.5
Malta	51.5	50.8	50.7	52.3	49.2	50.6	51.2	50.9	49.1	48

Netherlands	57.0	56.8	57.3	60.3	58.3	58.8	59.8	59.6	59.6	58.4
Austria	-	55.5	56.6	58.5	54.8	54.2	54.8	55.2	55.4	55.2
Poland	47.0	46.5	48.3	47.7	49	47.9	47.8	47.7	47.8	46.9
Portugal	58.2	57.2	58.3	59.6	56.5	55.5	54	53.7	52.7	51.3
Romania	56.1	56.6	60.4	59.7	54	48.6	48	46.1	47.3	44.5
Slovenia	60.8	59.9	61.2	64.3	64	62.8	63.1	62.9	61.5	61.1
Slovakia	42.1	42.3	43	46	44.3	44	43.9	43.8	44.2	44.8
Finland	55.0	53.7	55.6	59.7	56	55.9	57.1	56.4	56.1	55.7
Sweden	56.1	56.9	56.9	58.2	48.2	48.9	50.4	50.7	50.3	49.7
United Kingdom	61.9	60.7	60.7	63.1	60.6	59.5	59.4	59.1	58.2	-

Source: Eurostat (2018), own compilation

Unit labour costs at the national price level typically stagnated or declined over the reporting period with only Bulgaria showing an increasing tendency. The level of unit labour costs expressed at the national price level is influenced significantly by the development of the exchange rate; therefore, the author provides the following table of unit labour costs applying the purchasing power standard which is an artificially-created currency unit used for international comparison purposes to express the volume of economic aggregate indicators. Values are adjusted for both the price level and the exchange rate.

Table 4 Unit labour costs as a percentage based on purchasing power parity in the period 2006 to 2015

	Years									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Belgium	64.6	65.2	68.2	71.5	65.5	66.5	66.5	67.8	66.6	64.6
Bulgaria	17.6	18.5	20.5	23.1	22.6	22.9	23.4	25.5	26	26.1
Czech Republic	30.4	30.7	36.8	35.1	33.8	34.6	34.2	32.4	29.7	29.2
Denmark	78.1	79.5	81.7	87.3	75.1	74.4	74.3	73.9	73.8	72.2
Germany	58.0	56.4	58.1	62.8	58.7	58.1	58.8	59.6	59.1	58.4
Estonia	30.8	34.7	38.7	38.9	34.6	33.3	34	35.3	35.8	37.7
Ireland	58.8	59.5	67.5	66.6	55.1	53.2	51.6	52.9	51.1	38.8
Greece	46.2	47.4	48.2	51.7	51.2	50.2	47.3	42.8	41.7	40.4
Spain	49.6	49.6	52.6	54.5	54.8	54.1	51.2	50.6	49.7	49.1
France	63.5	62.6	64.6	67.4	64.1	64	64.9	64.5	64.2	62
Croatia	-	-	-	-	43.3	41.3	38.7	37.4	35.7	34.9
Italy	55.5	54.1	55.3	57.8	54.6	54	53.1	53.6	53	51.5
Cyprus	50.2	48.4	47	49.5	49.9	50.5	50.8	48.6	46.6	44.7
Latvia	28.7	35.4	40.8	36.1	30.7	29.4	30.6	31.9	32.7	33.7
Lithuania	27.3	28.6	31.5	31.7	27	26.3	26.2	26.9	27.4	28.3
Luxembourg	54.3	52.2	57.9	64.9	63.8	61.8	63	63.4	61	59.8
Hungary	30.4	34.1	34.6	31.1	28.7	28	27.4	26.7	26.2	25.7
Malta	35.6	35.6	36.4	38.1	36.9	38.5	39.3	40	39	38.5
Netherlands	60.8	60.1	61.9	67.5	65.1	65.2	65.2	64.8	65.1	63.1
Austria	-	59.3	61.8	65.7	60.4	59.8	59	59.9	60	58.9
Poland	27.3	27.9	32.7	27.3	29	27.8	27.1	27.3	27.4	26.5
Portugal	47.3	46.6	48.5	50.2	46	45.9	43.3	42.7	41.4	40.1
Romania	28.0	31.7	33.6	29.7	25.8	23.5	22.3	22.8	23.4	21.8

Slovenia	45.4	46.5	49.7	55.1	53.4	51.9	50.7	50.5	48.9	47.8
Slovakia	23.2	25.4	28.3	31.3	29.1	29.6	29.3	29.3	29.1	29.1
Finland	64.1	62.3	65.4	71.8	66	66.5	68.6	69.6	69.3	67.5
Sweden	67.7	67.4	66.5	65	59.6	63.5	66.3	68.5	65.9	63.5
United Kingdom	69.9	70.6	63.6	61.8	64.8	64.1	68.1	65.9	68.1	-

Source: Eurostat (2018), own compilation

Unit labour costs expressed via the purchasing power standard reveal the distribution of labour costs across the European Union, the countries of which can be divided into two groups above and below a value of 40%. Those countries that acceded to the EU in 2004 and later have values below 40% with the exception of Slovenia and Cyprus. Conversely, Ireland is the only original member of the European Union with a value of below 40% (in 2015).

The conclusion with concern to this factor is very similar to that of the previous two indicators. From the point of view of labour costs, it appears that the countries that acceded in 2004 and later enjoy a competitive advantage. However, if this advantage is not exploited now, it may well prove to be a burden in future years. Indeed, this is already becoming apparent as a result of Industry 4.0 which will exert a major impact on the future development and form of work. Low labour costs will no longer be advantageous since low-cost work will, to a great extent, be performed by robots, the work of which will be more precise, of a higher quality and less flawed due to the elimination of the human factor. It is most likely that robotised production will take place in the company's home country; therefore, what will become of those employed in the "workshops" of 2004 and later accession countries? In short, it seems reasonable to assert that these countries must act now, or it may be too late.

III. International shifts and competition

In order to determine the status of the countries under study with respect to international trade, it is necessary to focus on those commodities that are exported from individual countries. The data in the table below concerns 2016.

Table 5 The three largest aggregated product categories by country according to the Harmonized Commodity Description and Coding Systems including their share of exports in 2016

	Rank including the share of the country's exports in %						1+2+3*
	1	Share in %	2	Share in%	3	Share in %	in %
Belgium-Luxembourg	Chemical Products	21	Transportation	11	Machines	11	43
Bulgaria	Machines	18	Metals	15	Mineral Products	11	44
Czech Republic	Machines	36	Transportation	23	Metals	8	67
Denmark	Machines	22	Chemical Products	21	Animal Products	13	56
Germany	Machines	27	Transportation	24	Chemical Products	13	64
Estonia	Machines	35	Wood Products	9	Miscellaneous	8	52
Ireland	Chemical Products	59	Machines	15	Instruments	9	83
Greece	Mineral Products	26	Metals	13	Foodstuffs	10	49
Spain	Transportation	22	Machines	14	Chemical Products	12	48
France	Transportation	22	Machines	19	Chemical Products	16	57
Italy	Machines	26	Chemical Products	12	Transportation	11	49
Cyprus	Chemical Products	21	Mineral Products	16	Machines	15	52
Latvia	Wood Products	17	Machines	16	Mineral Products	10	43
Lithuania	Mineral Products	15	Machines	12	Chemical Products	11	38

Hungary	Machines	40	Transportation	19	Chemical Products	8	67
Malta	Chemical Products	31	Machines	27	Mineral Products	18	76
Netherlands	Machines	21	Chemical Products	15	Mineral Products	13	49
Austria	Machines	29	Metals	13	Chemical Products	11	53
Poland	Machines	25	Transportation	15	Metals	9	49
Portugal	Machines	17	Textiles	11	Transportation	11	39
Romania	Machines	30	Transportation	18	Textiles	8	56
Slovenia	Machines	22	Transportation	19	Chemical Products	13	54
Slovakia	Machines	31	Transportation	31	Metals	9	71
Finland	Machines	23	Paper Goods	18	Metals	14	55
Sweden	Machines	27	Transportation	15	Chemical Products	11	53
United Kingdom	Machines	21	Transportation	19	Chemical Products	16	56

**Note: 1+2+3 is the sum of the shares of the three largest export categories in the given country*
Source: UN Trade Statistics (2018)

The product information shown in the table is taken from the Harmonized Commodity Description and Coding Systems. The most common item mentioned consists of the Machines category.[5] Indeed, with respect to seventeen of the twenty-eight EU Member States, this category represents the biggest export category and it features in the top three exports of the listed countries twenty-five times. The second most common item in the table consists of Chemical Products,[6] which is listed sixteen times, and which is most often in third position. The third most common export category but the most frequently featured in second place is Transportation.[7] These three categories appear fifty-five times in the first three export rankings, with other sectors featuring in just twenty-three cases in the first three positions. It is interesting to note just how homogenous the European Union is in terms of the export of production.[8] The original 15 countries of the European Union have been trading together for more than half a century with no significant interruption to their business relationships. Moreover, business links were created which originated naturally from the very outset; albeit some of these ties were not ideal. However, business relationships formed at a time of massive transformation in the post-communist countries of Central Europe were largely created in a rushed manner at an unstable time. Such ties have tended to distort the economies of these countries and have hindered the transition to developed service-based economies. Thus, business relationships have tended to be one-sided in favour of more wealthy business partners[9] with headquarters in the original Member States of the European Union. This is clearly not in line with the declared initial aims of economic partnership and cooperation; however, since the process is human-driven, there is very little pressure or will to monitor, assess or review the situation. This applies to all business relationships.

One of the signals of the unhealthy orientation of any economy is a disproportionately large share of the three largest product export categories, particularly if they are interconnected vertically or horizontally. In the event of an economic crisis,[10] the impact on such economies will be harder than on countries with more diversified economies. The 2004 and later accession countries have a high level of mono-production in their economies. That said, it is difficult to suggest an alternative way forward. Small countries with small populations are forced to concentrate their resources on the

[5] The Machines category includes nuclear reactors, machinery, mechanical appliances and electrical machinery and equipment etc.
[6] The Chemical Products category includes inorganic and organic chemicals, pharmaceutical products, fertilisers, tanning or dyeing extracts, essential oils, perfumery, cosmetic or toilet preparations etc.
[7] The Transportation category includes railways, vehicles, aircraft, ships etc.
[8] This refers only to exported goods, i.e. not to all of the production of given countries; however, the export indicator is used to determine competition.
[9] This practice is standard in the business sector, i.e. a stronger bargaining position leads to higher profits.
[10] Economic crises make up an integral part of the economic cycle; hence, such crises are inevitable.

production of a narrower range of goods than larger countries if they are to take advantage of the economies of scale. Therefore, improving the degree of diversification of an economy under such circumstances presents a major challenge.

A close link is evident between the three largest aggregated product categories in all the smaller 2004 and later accession countries with small populations; however, it is particularly obvious with respect to the Visegrad Four countries. It should also be noted that the Czech Republic, Hungary and Slovakia rank among the top five countries in the table in terms of the proportion of the first three export categories of their total exports. In the event of an economic crisis, therefore, it is reasonable to surmise that these economies will be the most quickly as well as most deeply affected.

Table 5 Total export in billions of dollars and the three largest export destinations in 2016 by country

	Exports	Country					
	Billions of dollars	1	Share in %	2	Share in %	3	Share in %
Belgium-Luxembourg	325.0	Germany	13	Netherlands	13	France	13
Bulgaria	26.5	Germany	14	Italy	10	Turkey	8
Czech Republic	152.0	Germany	30	Slovakia	7	United Kingdom	5
Denmark	84.1	Germany	13	Sweden	12	United States	9
Germany	1250.0	United States	9	France	8	United Kingdom	7
Estonia	14.1	Sweden	15	Finland	12	Russia	9
Ireland	161.0	United States	26	Belgium-Luxembourg	11	United Kingdom	11
Greece	26.5	Italy	11	Germany	7	Cyprus	5
Spain	270.0	France	14	Germany	11	Portugal	8
France	498.0	Germany	14	United States	8	Belgium-Luxembourg	7
Italy	450.0	Germany	12	France	10	United States	10
Cyprus	3.1	Greece	13	Israel	10	United Kingdom	8
Latvia	11.2	Lithuania	19	United Kingdom	8	Russia	7
Lithuania	22.1	Latvia	10	Russia	9	Germany	8
Hungary	101.0	Germany	26	United States	5	Romania	5
Malta	5.7	United States	22	Egypt	8	Germany	7
Netherlands	413.0	Germany	19	Belgium-Luxembourg	14	United Kingdom	11
Austria	146.0	Germany	27	United States	8	Italy	6
Poland	192.0	Germany	25	United Kingdom	7	Czech Republic	6
Portugal	54.8	Spain	22	France	12	Germany	11
Romania	64.8	Germany	20	Italy	11	France	7
Slovenia	31.7	Germany	19	Italy	9	Austria	8
Slovakia	72.6	Germany	21	Czech Republic	10	France	6
Finland	61.5	Germany	13	Sweden	10	United States	8
Sweden	134.0	Germany	11	Denmark	8	United States	7
United Kingdom	374.0	United States	14	Germany	10	Netherlands	6

Source: UN Trade Statistics (2018)

The consideration of the economy with respect to categories of exported products is not the only important factor. Equally important is the total volume of exports expressed in monetary terms and the countries to which goods are exported. This factor provides further important information

contributing to the formation of a coherent pictures of the overall situation. Most European Union Member States are dependent on Germany with concern to exports. Germany appears most often in the list of export destinations, i.e. in first place fifteen times and three times in both second and third places. The second country in the list is the United States of America, i.e. four times in first place, three times in second place and four times in third place. The third country is France, i.e. in first place once and in second and third places three times each. Germany's influence on the EU's trade policy is clearly visible from the table.

As previously mentioned, labour cost data referring to the past ten years clearly reveals that the European Union should be perceived as a community of Member States in which the countries that acceded in 2004 and later do not represent competitors to those of the original European Union.

It is not unreasonable to state that reality over the past ten years has deviated significantly from the pre-2004 vision of integration.[11] Trade has been characterised by the one-sided acquisition on the part of companies from the original Member States of strategic companies and companies with potential in the accession countries of 2004 and later. In general, politicians at the time of economic and political transformation were weak and often ignorant of the consequences of their actions.[12] Unless a full takeover takes place, companies from the post-2004 accession countries are incorporated into the production chains of original Member States. Ultimately, the position of the controlled entity with respect to market manoeuvering and growth is limited by the outside authority. At the same time, the interest of that authority is to maximise profits and to transfer that profit to its headquarters.[13] Naturally, from the business point of view, this is perfectly logical. The citizens, institutions and businesses of wealthier countries have much greater amounts of capital (including financial) at their disposal to fund operations of this type. It was simply utopian to assume that this would not happen.

The key issue concerns the ideas of European Union visionaries on the one hand and trade representatives on the other on the essence of competition and integration. The mutual incomprehension and failure to achieve the desired results lies precisely in the difference in the perception of the meaning of the words competition and integration between these two groups. In the event that the ideal of economic partnership and cooperation were respected, it would not matter significantly who owned the means of production since the benefit would accrue to all the parties concerned. Data on economic developments illustrates that the afore-mentioned anticipated consequences of the integration process between wealthy and economically weaker countries have not been felt and that no process of economic convergence is underway. While it has been opined that the closing of the gap between the two groups of economies has stagnated,[14] there are also cases where the differences are widening.

From the point of view of labour costs, certain unfair practices have been identified in trade negotiations between company headquarters and controlled companies in countries that acceded to the EU in 2004 and later. However, these unfair practices are not unlawful, and nor can they be proved. The controlled company is highly unlikely to sue the company headquarters - the managers of the controlled company would be replaced, and the controlled company would end up paying any fines itself if it won a legal dispute, etc. Thus, controlled companies are not only limited in terms of growth but also in terms of production should it pose a threat to the company headquarters.[15] The controlled

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[11] The integration process is supposed to lead to the convergence of poorer countries with richer countries.
[12] In the context of widespread corruption in many 2004 and later accession countries, it is also realistic to assume that many politicians were fully aware of the various consequences; however, personal gain prevailed. The exposure by the media of cases of this kind continues to characterise post-communist countries today and involves huge amounts of public money.
[13] Which it is fully entitled to do.
[14] A study conducted by the Czech-Moravian Confederation of Trade Unions warns that under current conditions the Czech Republic will catch up with Germany in 84 years, Austria in 103 years, Belgium in 185 years and Norway never. ČMKOS (2015).
[15] For example, the sales of a flagship product is threatened.

company typically receives no support from the central research or innovation centre and is ultimately under the full control of the company headquarters. All these steps lead to the stunting of the growth of controlled companies and a failure to realise their full potential. The competitiveness of the controlled company is artificially restricted. All these factors are in line with the policy of the company headquarters[16].

It is worth mentioning in this context that a study by the Health Poverty Action organisation (2014) revealed that total financial aid to Africa is worth $134 billion, whereas the rest of the world takes $192 billion from Africa, i.e. a negative balance for Africa of $58 billion. If the same logic were applied to the accession countries of 2004 and later, it can only be concluded that the accession countries are not net recipients of EU funds (as is often assumed) and that the trade relationships established at the time of transformation are not equitable. Thus, a reassessment of business relationships might be called for.

A further option exists with concern to the more rapid convergence of economically weaker countries with wealthier countries in the context of the European Union, i.e. the model adopted by China in the 1970s onwards, one of the main pillars of which was ignoring international legislation on copyrights, patents, contracts, etc. In a very short time, China has become the world's second largest economy and the living standards of the population have improved beyond all recognition. Nevertheless, however attractive such a model may be, it is inappropriate for the accession countries of 2004 and later due to their size and small populations as well as the legal framework in place and, especially, the level of compliance with legislation.

The most effective approach with respect to ensuring real convergence for the economically weaker 2004 and later accession countries can only be applied by the institutions of the European Union itself, i.e. by using their power and having the courage to stand up to multinational companies and acting against the interests of the EU's most influential countries, i.e. those countries that determine the policies of the European Union and in which most of these controlling companies are based.

The purpose of the paper is not to complain about the injustice of the world or to "cry over spilt milk". Nor does it call for the withdrawal of the accession countries of 2004 and later from the European Union. The drawing of such a conclusion would be to fundamentally misunderstand the study. Membership of the European Union is undoubtedly beneficial for the transformation countries in many other ways. However, with respect to economic cooperation and partnership, it is difficult to define any advantages for these countries. If the situation was advantageous 20 years ago it does not mean that the same applies today or will do so in the future. It is a given truth that the same words have a significantly differing meaning for different interest groups.

IV. Conclusion

All three labour cost indicators reveal phenomena that are difficult to explain by means of basic economic theories. The labour cost indicator clearly shows that two disparate groups of countries exist in the European Union, i.e. the 2004 and later accession countries and the original (15) members. There is no economic competition between these two groups and, moreover, the biggest competitors to 2004 and later accession countries are other countries in the same group. The same principle indeed applies to the original countries of the European Union. The share of labour costs of total costs indicator revealed that the countries with the lowest such costs are overwhelmingly those with economies featuring high levels of capital-intensive production. However, it is pertinent to ask what will happen to the workers employed in manufacturing once they are replaced by robots. The unit labour costs indicator confirmed the findings of the other two indicators. While the 2004 and later accession countries enjoy a competitive advantage in the form of significantly cheaper labour, it has not led to convergence towards the original countries of the European Union in the context of the

[16] Such phenomena can be documented with respect to Czech companies in a number of industries: Aero Vodochody, ArcelorMittal Ostrava, Česká spořitelna, Komerční banka, Opavia, Škoda Auto etc.

overall integration process. In short, the declared advantages of the integration process have not materialised.

Germany undoubtedly enjoys the most important position in the European Union with respect to international trade. For the majority of 2004 and later accession countries Germany constitutes a strategic business partner on which they are completely dependent. Many companies in the accession countries have either been acquired by companies based in the original countries of the European Union (mainly Germany) or have been integrated into their production chains which, in both cases, resulted in a clear transfer of power within the European market environment. Such companies have been stripped of their decision-making powers and are prevented from reaching their full potential. They are businesses from the legal point of view, but do not behave in a conventional economic manner.

Thus, after more than a decade since accession, the two ideological concepts of integration remain as far apart as ever since businesses see the competitive environment in a very different light to that envisaged and proclaimed by the political elite. The objectives of these two interest groups are completely different. Economic partnerships and cooperation have not materialised in the envisaged political sense, rather they have manifested themselves only through trade relationships which are disadvantageous for the economically weaker party. Moreover, the situation is unlikely to change since companies have enough financial resources to achieve their aims and more time than the one election period to which politicians are restricted. It is a fact that trade is not about compassion and justice, due to which politicians are provided with the right to provide a level playing field with respect to business relations. As a result of the challenges presented by digitalisation, automation and robotisation, it is possibly already too late to rectify the situation.

In addition, new tensions are emerging in the form of intolerance, nationalism and xenophobia that are bound to manifest themselves in the labour market, a situation that will only be exacerbated as a result of the arrival of new waves of migration. Moreover, it is perhaps understandable that EU citizens are upset when they are informed that workers just 100 km away receive a three times higher salary for the same job position, and this feeling of injustice is only reinforced as new information on this theme is provided by the media. It is inevitable that people will begin to feel helpless, robbed and abused[17] and it requires only the slightest further incentive to push people towards forming extreme views of society as a whole. Thus, it is essential that politicians be made aware of the situation and focus on avoiding the occurrence of such phenomena.

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[17] And other negative manifestations.

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