

Gender equality influence on the economic development in the Baltic Sea Region

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Abstract

One of the most exposed value in an Age of Neoliberalism is a gender equality, which is an essential condition to achieve goals of economic growth, employment and social cohesion. The Baltic Sea Region (BSR) is a non-homogeneous region. When examining the economic situation of the region, the BSR countries are traditionally divided into two groups: (1) the high-income countries Finland, Sweden, Denmark, Norway, Germany and Iceland, which are called "old market economy countries", or "developed economies of the region"; (2) the middle- or low-income countries as Estonia, Latvia, Lithuania, Poland, and Russia. The latter are classified as post-socialist or transitional economies. The aim of the article is to analyse similarities and differences between those two groups of countries from 2006 to 2016 (ten years). The article compared gender gap using special tools as an economic participation, educational attainment and political empowerment.

Keywords: gender equality, economic development, the Baltic Sea Region.

Wpływ koncepcji równości płci na rozwój gospodarczy w regionie Morza Bałtyckiego

Streszczenie

Jedną z eksponowanych wartości w dobie neoliberalizmu jest równość płci, stanowiąca niezbędny warunek osiągnięcia celów wzrostu gospodarczego, zatrudnienia i spójności społecznej. Region Morza Bałtyckiego (BSR – od ang. *Baltic Sea Region*) jest regionem niejednorodnym. Badając sytuację gospodarczą regionu, państwa BSR tradycyjnie dzielą się na dwie grupy: (1) o wysokim dochodzie, wśród których możemy wymienić Finlandię, Szwecję, Danię, Norwegię, Niemcy, Islandię, oraz (2) takie, które posiadają średni dochód: Estonia, Łotwa, Litwa, Polska i Rosja. Te ostatnie są klasyfikowane jako gospodarki postsocjalistyczne lub przejściowe. Celem artykułu jest analiza podobieństw i różnic między tymi dwiema grupami państw w latach 2006–2016 (dziesięć lat).

W artykule porównano różnicę płci przy użyciu takich narzędzi, jak udział w życiu gospodarczym, osiągnięcia edukacyjne i wzmocnienie pozycji politycznej.

Słowa kluczowe: równość płci, rozwój gospodarczy, region Morza Bałtyckiego

The political and economic transformation, which took place in Central and Eastern Europe during the 80s and 90s of the 20th Century, changed the geopolitical situation in the Baltic Sea Region (BSR). It is worth noting, that this was a non-homogeneous region. When examining the economic condition of countries, which are part of the BSR, they are traditionally divided into two groups (Tomala 2017: p. 92; Paas, Tafenau 2004: p. 8):

- 1) The high-income countries: Finland, Sweden, Denmark, Norway, Germany, and Iceland, which are called "old market economy countries", or "developed economies of the region";
- 2) The middle-income or low-income countries: Estonia, Latvia, Lithuania, Poland, and Russia (they are classified as post-socialist or transitional economies).

Poland and newly emerging countries (Lithuania, Latvia and Estonia) declared a new direction of their foreign policy as pro-Western, started integrating with the European Union (Joenniemi 1993) and cooperating in the Baltic Sea Region (Tomala, Czarny 2009). This depleted the Russian's Federation influence in this area, but at the same time strengthened the EU. As the result of these actions countries of the former Eastern Bloc by adopting the model of a capitalist free market economy would have improved the prosperity in relation to the Western European countries (Wallerstein 1976). According to Immanuel Wallerstein, in the system of relationships between countries, there are three categories: core countries, semi-peripheries and periphery countries. On the one hand, the post-communist countries have a chance to exit from the semi- or peripheral situation; and on the other hand, there is the threat of a return to the group of underdeveloped countries (Wallerstein 1974: p. 50–54). Following the EU standards of gender mainstreaming (European Institute for Gender Equality 2016; Hafner-Burton, Pollack 2000: p. 432–456; Rees 1998; Verloo 2001), it should help these countries to achieve convergence and decrease disproportions toward the West (Voronov et al. 2014: p. 147–163).

One of the prominent values of the European Union is equality between women and men, which is an essential condition for achieving the EU's objectives in terms of economic growth, millennium development goals and social cohesion (Galor, Weil 1996: p. 374–387; Barro, Lee 1994: p. 1–46; Thévenon, Salvi del Pero 2015).

Assuming that, in recent decades significant progress has been made to eliminate existing inequalities between women and men, the question should be asked: whether a similar phenomenon occurred in the Baltic Sea Region countries? If the removal of inequalities in countries of the former Eastern bloc, allowed to reduce economic disparities in comparison to the Western neighbours from the Baltic Sea? The aim of the study, is to verify the hypothesis that following a similar path to the Western countries' development, could influence equalisation of disproportions in gender equality. The analysis was carried out on the basis of the World Economic Forum's *Global Gender Gap Report* from 2006 to 2017.

Based on data from the *Global Gender Gap Report*, statistical methods and a comparative method were used to demonstrate the shaping of the gender equality policy in the Baltic Sea Region.

Gender equality in the Baltic Sea Region from 2006 to 2017

The United Nations Entity for Gender Equality and the Empowerment of Women defines that gender equality refers to “equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same, but that women’s and men’s rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognising the diversity of different groups of women and men. Gender equality is not a women’s issue, but should concern and fully engage men as well as women. Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centred development” (EIGE WWW; United Nations 2001; European Commission 2011).

We can measure gender equality using different tools, which are provided for instance by: The European Union Statistical Office, Eurostat, which publishes an overview of gender statistics for the European Union from fields such as education, the labour market, earnings and health, important for demonstrating differences in the situations of women and men; The European Institute for Gender Equality, which provides an easily interpretable measure of gender equality in the EU across 6 key policy domains – work, money, knowledge, time, power and health, and two satellite domains (violence and intersecting inequalities); and The United Nations Gender Inequality Index, which is based on the premise that all too often, women and girls are discriminated against in health, education and the labour market with negative repercussions for their freedom (UNDP WWW).

In this article, another framework was used for capturing the magnitude and scope of gender-based disparities. The analysis was based on the *Global Gender Gap Report*, provided by the World Economic Forum. It was introduced by the World Economic Forum in 2006, which benchmarks national gender gaps on economic, political, education and health criteria. This report allows us to measure each country, within the Baltic Sea Region. This Index looks at economic participation and opportunity deviation; educational attainment deviation; health and survival deviation and political empowerment deviation.

Table 1: Gender gap index in the Baltic Sea Region during the 2006-2017 (scale: 0-1)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sweden	0,81	0,815	0,81	0,81	0,8	0,8	0,82	0,813	0,82	0,82	0,81	0,82
Norway	0,8	0,81	0,82	0,82	0,84	0,84	0,84	0,84	0,84	0,85	0,84	0,83
Finland	0,8	0,8	0,82	0,82	0,83	0,84	0,84	0,84	0,84	0,85	0,84	0,82

Iceland	0,78	0,78	0,8	0,83	0,85	0,85	0,86	0,87	0,86	0,88	0,87	0,88
Germany	0,75	0,76	0,74	0,74	0,75	0,76	0,76	0,76	0,78	0,78	0,77	0,78
Denmark	0,75	0,75	0,75	0,76	0,77	0,78	0,78	0,78	0,8	0,76	0,75	0,78
Latvia	0,71	0,73	0,74	0,74	0,74	0,74	0,76	0,76	0,77	0,75	0,75	0,76
Lithuania	0,71	0,72	0,72	0,72	0,71	0,71	0,72	0,73	0,72	0,74	0,74	0,74
Estonia	0,69	0,7	0,71	0,71	0,7	0,7	0,7	0,7	0,7	0,74	0,75	0,73
Poland	0,68	0,68	0,69	0,7	0,7	0,7	0,7	0,7	0,7	0,71	0,73	0,73
Russian Federation	0,68	0,69	0,7	0,7	0,7	0,7	0,7	0,7	0,69	0,69	0,69	0,7

Source: Gender Gap Reports.

Table 1 demonstrates a snapshot of the gender gap in the Baltic Sea Region during 2006–2017. It illustrates that the gender equality indicator has changed slightly in the analysed period. Only in the case of 2 countries: Iceland and Latvia. We can observe a steady and minor increase of the variable. Also, Latvia was the only country in the Eastern bloc, which pursued the policy of equalising social disparities and overtook Denmark in 2016.

Therefore, it can be noticed that countries from the Baltic Region do not have a systematic policy of gender equality. Even if countries are advanced in the ranking in certain years, later they noticed a decrease (for example: Sweden, Norway, Finland, Germany, Denmark). The highest upswing was achieved by Estonia in 2015, but the biggest drop was noted by Denmark in the same year. It is worth noticing that although no countries have achieved gender equality in the world, the Nordic countries consistently stand out in the World Economic Forum's annual *Global Gender Gap Report*. Iceland holds the top spot since 2009, leaving Sweden, Norway and Finland following close behind. Furthermore, all the Nordic countries have remained at the forefront of the ranking, and in 2014 they were in the top five of the world ranking.

Analysing the data, we can clearly see the disproportions between the group of Western states and the countries of the Eastern bloc. Russia and Poland took last place among the surveyed countries during this period.

The indicated division implies the necessity to ask: what factors have an effect on the disproportions between the distinguished groups of countries? The Index benchmarks national gender gaps on economic, education, health and political criteria, and provides countries rankings that allow for effective comparisons across regions and income groups.

The first of the discussed factors analysed by the World Economic Forum, refers to the economic participation and opportunity. This sub-index contains three concepts: the participation gap, the remuneration gap and the advancement gap. The participation gap is captured using the difference between women and men in labour force participation rates. The remuneration gap is captured through a hard data indicator (ratio of estimated

female-to-male earned income) and a qualitative indicator gathered through the World Economic Forum's annual *Executive Opinion Survey* (wage equality, for similar work). Finally, the gap between the advancement of women and men is captured through two hard data statistics (the ratio of women to men among legislators, senior officials and managers, and the ratio of women to men among technical and professional workers). *Table 2* presents data about economic criteria in the Baltic Sea Region from 2006 to 2017.

Table 2: Economic participation and opportunity in the Baltic Sea Region from 2006 to 2017 (scale: 0-1)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sweden	0.73	0.76	0.78	0.78	0.77	0.79	0.8	0.78	0.82	0.84	0.8	0.8
Norway	0.73	0.75	0.78	0.78	0.83	0.83	0.83	0.84	0.84	0.87	0.82	0.82
Finland	0.73	0.72	0.74	0.75	0.76	0.77	0.78	0.77	0.79	0.81	0.79	0.79
Iceland	0.71	0.72	0.78	0.75	0.75	0.74	0.75	0.77	0.82	0.84	0.8	0.8
Germany	0.67	0.7	0.69	0.7	0.71	0.73	0.74	0.71	0.74	0.74	0.69	0.72
Denmark	0.71	0.73	0.71	0.75	0.74	0.77	0.77	0.76	0.8	0.79	0.73	0.73
Latvia	0.7	0.73	0.75	0.75	0.75	0.75	0.76	0.78	0.79	0.78	0.78	0.8
Lithuania	0.71	0.76	0.74	0.75	0.75	0.74	0.75	0.77	0.74	0.76	0.76	0.75
Estonia	0.68	0.69	0.7	0.7	0.72	0.72	0.72	0.72	0.7	0.71	0.7	0.73
Poland	0.63	0.62	0.62	0.64	0.65	0.65	0.65	0.65	0.68	0.67	0.69	0.7
Russian Federation	0.7	0.73	0.74	0.74	0.74	0.74	0.72	0.72	0.73	0.73	0.72	0.72

Source: Gender Gap Reports.

As the *Table 2* demonstrates, in the period of the 11 years of study, all the Baltic Sea Region countries have recorded a similar increase in the economic participation and opportunity. The worst result was achieved by Poland, while the Russian Federation does not differentiate from the Nordic Countries and Germany. Besides the economic indicators' growth, disproportion still exists between countries derived of the Eastern bloc to the Western and Northern neighbours from the Baltic Region. Therefore, the Nordic countries have been leaders in this area, but they have not achieved top position in the world. However, all five countries feature the top 20 of the economic participation and opportunity pillar of the Global Gender Gap Index. It results from a combination of such factors as: high female labour force participation; the lowest salary gaps between women and men; and abundant opportunities for women to rise to positions.

While patterns vary across the Nordic countries, on the whole, these economies have made it possible for parents to combine work and family, resulting in an increase of women in the workplace, more shared participation in childcare, more equitable distribution of

labour at home, better work-life balance for both women and men, and also in some cases, a boost to waning fertility rates. Policies in these countries include mandatory paternity leave in combination with maternity leave, generous, state-mandated paternity leave benefits provided by a combination of social insurance funds and employers, tax incentives and post-maternity re-entry programmes. Together, these policies have lowered the negative opportunity costs of having children and led to relatively higher and rising birth rates, as compared to other ageing, developed economies.

Educational Attainment is the second indicator, which was analysed in the Baltic Sea Region between 2006 and 2017 (see: *Table 3*). This sub-index captures the gap between women's and men's current access to education through ratios of women to men in primary-, secondary- and tertiary-level education. A longer-term view of the country's ability to educate women and men in equal numbers is captured through the ratio of the female literacy rate to the male literacy rate.

Table 3: Educational attainment in the BSR (scale: 0-1)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sweden	1	1	1	1	1	1	1	1	1	1	1	1
Norway	1	1	1	1	1	1	1	1	1	1	1	1
Finland	1	1	1	1	1	1	1	1	1	1	1	1
Iceland	0.99	0.99	0.99	1	1	1	1	1	1	1	1	0.99
Germany	0.99	0.99	0.99	0.99	0.99	0.99	0.98	0.98	1	0.99	0.97	0.97
Denmark	1	1	1	1	1	1	1	1	1	1	1	1
Latvia	0.93	0.99	1	1	1	1	1	1	1	1	1	1
Lithuania	1	1	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1	1
Estonia	1	1	0.99	1	1	1	0.99	0.99	1	1	0.99	1
Poland	1	1	1	1	1	1	0.98	1	1	1	1	1
Russian Federation	1	1	1	1	1	1	1	1	1	1	1	1

Source: Gender Gap Reports.

The *Table 3* demonstrates, that in the area of educational attainment there are slight disproportions – statistically unnoticeable the between eleven Baltic states. It turns out that the deficit of educational attainment in the former Eastern bloc is minor, so it is difficult to talk about any barriers that the states of this group should overcome in relation to the group of Western countries. Only in the secondary level of education, can the gap in access to education be noticed.

It means, that governments in all surveyed countries have achieved progress in increasing access to education, in spite of slow progress, which has been improved in gender sensitivity of the education system, including ensuring textbooks promoting positive stereotypes. As Aya Kibesaki said: "this is critically important for girls to come

out of schools as citizens who can shape a more equal society" (Leach 2016). In some countries like Poland, there is a tendency to assume that things are fine as long as there are equal number of girls in schools (Global Partnership for Education WW/W).

Sequent sub-index provides an overview of the differences between women's and men's health through the use of two indicators. The first is the sex ratio at birth, which aims specifically to capture the phenomenon of "missing women", prevalent in many countries with a strong son preference. Second, the gap between women's and men's healthy life expectancy. This measure provides an estimate of the number of years that women and men can expect to live in good health by taking into account the years lost to violence, disease, malnutrition and other relevant factors. *Table 4* presents health and survival in the Baltic Sea Region from 2006 to 2017.

Table 4: Health and survival in the Baltic Sea Region from 2006 to 2017 GGR (scale: 0-1)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sweden	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Norway	0.97	0.98	0.98	0.98	0.98	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Finland	0.98	0.98	0.98	0.98	0.97	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Iceland	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Germany	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.97	0.98	0.98	0.98
Denmark	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Latvia	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Lithuania	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Estonia	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Poland	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Russian Federation	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98

Source: Gender Gap Reports.

Situation in this field in the BSR is similarly to the average situation in the world. The gap in health between women and men is almost the unnoticeable and it has not changed in recent years. In this region women live longer than men, but spend fewer years in good health. Atypically, this variable demonstrates advantages in Poland, the Russian Federation, Estonia, Latvia and Lithuania over the Nordic countries and Germany. This situation does not confirm their underdevelopment, and the disproportions between them are not significant.

Political Empowerment measures the gap between men and women at the highest level of political decision-making, through the ratio of women to men in ministerial positions, and the ratio of women to men in parliamentary positions. In addition, WEF have included the ratio of women to men in terms of years in executive office (prime minister or president) for the last 50 years. A clear drawback in this category in 2017

is the absence of any indicators capturing differences between the participation of women and men at local levels of government.

Table 5: Political Empowerment in the Baltic Sea Region (scale: 0-1)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sweden	0.55	0.53	0.5	0.5	0.47	0.46	0.5	0.5	0.5	0.49	0.49	0.49
Norway	0.49	0.49	0.53	0.53	0.56	0.56	0.56	0.56	0.54	0.56	0.58	0.53
Finland	0.47	0.52	0.56	0.57	0.57	0.61	0.62	0.62	0.62	0.61	0.61	0.52
Iceland	0.46	0.46	0.5	0.59	0.67	0.7	0.73	0.75	0.66	0.72	0.72	0.75
Germany	0.37	0.37	0.3	0.31	0.33	0.34	0.35	0.36	0.4	0.41	0.43	0.45
Denmark	0.3	0.3	0.33	0.33	0.37	0.37	0.36	0.37	0.43	0.31	0.31	0.41
Latvia	0.22	0.23	0.23	0.23	0.24	0.23	0.29	0.29	0.3	0.25	0.26	0.25
Lithuania	0.14	0.16	0.17	0.15	0.13	0.14	0.15	0.18	0.17	0.23	0.24	0.24
Estonia	0.12	0.13	0.16	0.16	0.11	0.1	0.1	0.1	0.12	0.31	0.31	0.22
Poland	0.11	0.11	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.21	0.24	0.23
Russian Federation	0.03	0.03	0.08	0.08	0.1	0.1	0.1	0.1	0.07	0.07	0.07	0.09

Source: Gender Gap Reports.

As can be seen from the graph, the situation for women in terms of political empowerment does not look as good as in educational attainment, or health and survival. The discriminatory approach of institutions and certain social norms, limit the social and political role of women around the world. The situation is similar in the Baltic Sea Region. Alongside of the world's slight average, the Nordic countries seem to become leaders in the sub-index of political empowerment. However, the Nordic Countries (in particular Sweden, Norway, Finland and Iceland) stand out in the Baltic Sea Region. These countries achieved success with policies aimed at promoting women's leadership. For instance, in Norway, since 2008, publicly listed companies have been required to have 40 percent of each sex on their boards. While the other Nordic countries have adopted similar measures, in Poland Lithuania, Latvia, Estonia and Russia nothing has changed for years. In Denmark, Sweden and Norway, political parties introduced voluntary gender quotas in the 1970s, resulting in high numbers of female political representatives over the years. However, voluntary gender quotas were not introduced in the Baltic States. Only in Poland, they were adopted scarcely in 2011. In Denmark, in fact, this quota has since been abandoned as no further stimulus is required. Nowadays, Sweden has one of the highest percentages of women in parliament in the world (44.7 percent) while the other Nordic countries are almost as successful. However, in South-Eastern countries from the Baltic Sea, females don't have such a favourable situation (Poland – 28 percent; Latvia – 16 percent and Lithuania – 21.3 percent), which is a result of a lack of efficient electoral norms.

Gender equality influence on economic growth in the Baltic Sea Region

As the United Nations mentioned: "Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world" (United Nations W/W). In many international researches, scientists have tried to describe relatively fast economic growth, using the theory of convergence (Varblane, Vahter 2005). It means, that poor countries will grow much more rapidly than rich countries, and this process will end with the equalisation of these countries' GDP per capita.

The accession of Poland, Lithuania, Latvia and Estonia to the EU was supposed to improve their dynamics of economic development, thanks to the EU financial support from 2004. It was predicted that GDP per capita would increase from 43 percent to 2/3 of the EU average GDP. This would make it possible to even out the distance to the wealthy Nordic countries. As M. Pállson pointed out, the Baltic region is one of the fastest growing areas and would have been a strong and promising region for a new Europe (Tomala, Czarny 2009). *Table 6* presents data about the Baltic Sea Region countries' initial levels of real GDP per capita in PPP.

Table 6: Real GDP per capita in the Baltic Sea Region

	Sweden	Norway	Finland	Iceland	Germany	Denmark	Latvia	Lithuania	Estonia	Poland	Russian Federation
2006	37423	54087	34367	38718	34246	37300	15755	16487	19260	15144	14916
2007	40573	55887	37697	40780	36445	38962	18126	19092	21961	16785	16649
2008	41854	61757	39969	42721	38029	41278	19432	20744	22664	18310	20164
2009	41196	55428	37823	41196	37036	40332	16869	18143	20499	19243	19387
2010	38535	58022	38775	38535	39226	43042	17576	20110	21603	21069	20498
2011	39622	62145	40684	39622	42693	44403	19773	22854	24543	22851	24310
2012	40696	65448	40620	40696	43564	44804	21253	24658	26022	23833	25785
2013	42821	67056	41294	42821	45232	46727	22676	26661	27496	24719	26240
2014	44546	66015	41470	44546	47092	47901	23808	28174	28538	25602	25798
2015	47891	61722	42071	47500	47811	48675	24510	28784	28689	26595	24738
2016	48905	58808	43378	50746	48943	49029	25586	29862	29743	27383	24819
2017	50070	60978	45192	53518	50716	50541	27598	32093	31638	29291	25533

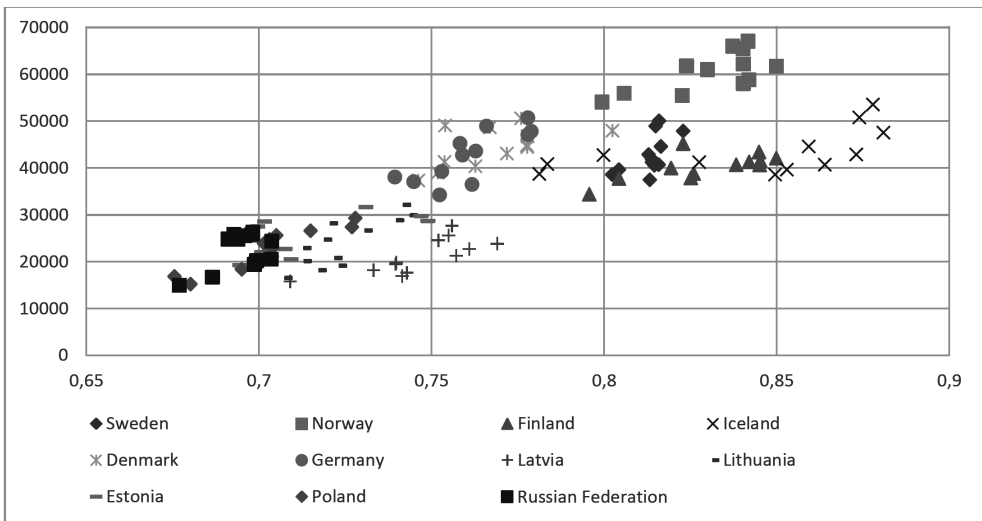
Source: World Bank, <https://data.worldbank.org/country>

In *Table 6* it can be seen that all the Baltic countries recorded a little economic growth during 2006–2017. Detailed analysis demonstrates that the distance between the richer countries from the Western bloc, and from the former Eastern bloc did not change from 2006 to 2017. This means that the adoption of the pro-Western model did not offset the

development differences. It should be mentioned, that disproportions between South-Eastern countries from the BSR changed little in relation to the North-Western countries, and increased by about USD 2000 per capita in the same time.

A variety of models and empirical studies have suggested that improving gender equality may result in significant economic dividends, which vary depending on the situation of different economies, and the specific challenges they are facing. As WEF informed: "Notable recent estimates suggest that economic gender parity could add an additional USD 250 billion to the GDP of the United Kingdom, USD 1.750 billion to that of the United States, USD 550 billion to Japan, USD 320 billion to France and USD 310 billion to the GDP of Germany. Other recent estimates, suggest that China could see a USD 2.5 trillion GDP increase from gender parity and that the world as a whole could increase global GDP by USD 5.3 trillion by 2025 by closing the gender gap in economic participation by 25 percent over the same period" (World Economic Forum 2017). Conversely, limiting women's access to labour markets is costly, as poor female labour force participation hampers economic growth. According to Duflo (2012; p. 1051–1079), inequalities between sex determine barriers, which inhibit decrease of economic division what is illustrated in *Figure 1*.

Figure 1: Scatter diagram



Source: World Bank, <https://data.worldbank.org/country>; Gender Gap Reports.

The general trend of the points seems to follow a straight-line segment. This phenomenon can be assessed on the basis of Pearson's linear correlation, which demonstrates the relations between two variables: GDP p.c. measured according to purchasing power parity and the gender equality factor, based on the formula:

$$r = \frac{n \cdot \sum x_i \cdot y_i - \sum x_i \cdot \sum y_i}{\sqrt{(n \cdot \sum x_i^2 - (\sum x_i)^2) \cdot (n \cdot \sum y_i^2 - (\sum y_i)^2)}}$$

where:

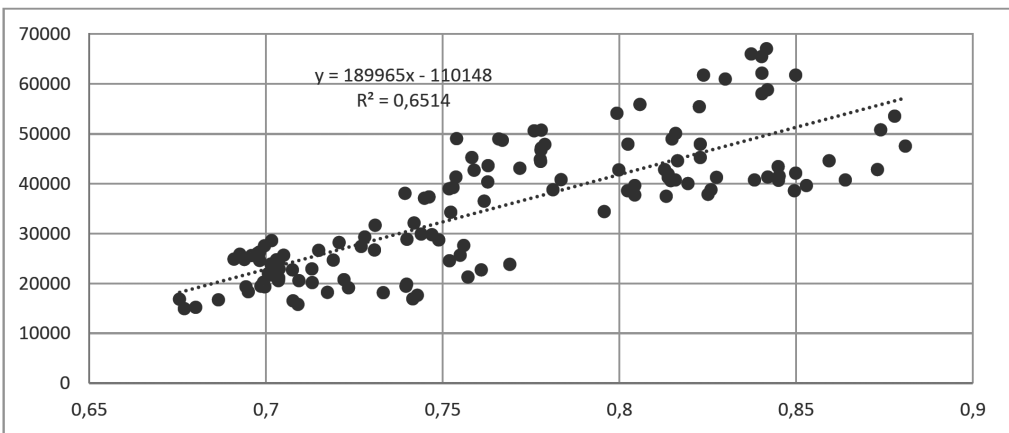
r – linear correlation

x_i – GDP p.c. PPP

y_i – Gender Gap Index

Due to the available data, the study covered eleven countries from the Baltic Sea Region in the period 2006–2017. On this basis 132 trials were obtained. The following is a scatterplot of the variables studied (Figure 2).

Figure 2: Correlation coefficient



Source: World Bank, <https://data.worldbank.org/country>; Gender Gap Reports.

The linear (regression) graph demonstrates that with the increase in the gender equality ratio by 0.1, GDP in the p.c. grows according to purchasing power parity. And vice versa: with the increase in GDP p.c. PPP the gender equality indicator also increases. The R2 determination factor was 65 percent in the dependency model analysis, and it means a satisfactory match. It provides information about what part of the variability was explained by the model. This confirms world-wide tendencies in gender equality, similarly to the world.

Besides the growing evidence of the positive effect of increasing gender parity on national income, the South-Eastern Baltic Sea countries have not changed their gender policy yet. They still remain on the less developed level, and they still have not improved their gender gap.

Conclusions

According to Ban Ki-moon: "Achieving gender equality requires the engagement of women and men, girls and boys. It's everyone's responsibility" (United Nations Secretary-General 2014). The Index of gender gap allows us to measure a country's position in the area of disproportion between men and women. Indicators enable us to compare countries and give the ability to correct their political goals. While analysing countries from the Baltic Sea Region, it is possible to draw conclusions:

In the Baltic Sea Region, we can observe a positive relationship between the gender equality ratio and GDP per capita according to the purchasing power parity. Similarly, to Europe, in this area exists a correlation between gender gap and economic growth. Therefore, the analysis allows us to distinguish two groups of countries in the Baltic Sea Region. The first one with high income and high gender equality index (Norway, Iceland, Sweden, Finland, Denmark, Germany) and the second with lower income and a weak gender equality index (Lithuania, Latvia, Estonia, Poland, Russia). It should be emphasised that this division, confirms historical relations between development and peripheral countries.

The analysis demonstrates that women are not discriminated in two of the four areas discussed, i.e. in a sphere of health and access to education. Women live longer than men in both groups of countries. The Gender gap between health and survival is approximated in the Nordic countries and the South of the BSR. In a sphere of education, people have the same access to education. Only in the area of health disproportions between the studied groups of countries can be observed.

Iceland, Finland, Norway, Sweden and Denmark achieved the highest scores in the ranking of gender equality in the World, with a score of 80 percent, when the worldwide rate was 60 percent. Therefore, they are leaders in Gender equality, while Lithuania, Estonia, Poland and Russia ranked below average. These countries don't have planned policy towards equalising such disparities between women and men. The Gender Gap Index remains almost unchanged since 2006.

Diversification between women and men are the most visible in the sphere of wages and in the political sphere. Wages in the group of the Nordic countries and in Germany are definitely higher than in the countries of the former socialist bloc. It is also related to the disproportions between women and men. In addition, the analysis demonstrates inequalities in women's access to ministerial positions, and a discriminatory approach towards women during parliamentary elections. It should be noted, however, that the disparities in the Nordic countries are smaller.

In conclusion, responding to the question, which we asked in the introduction about equalising development disparities, it can be noted that countries from the former Eastern bloc have not caught up with countries from the first group. They have changed their policies to a small extent, which in the most important aspects discriminates against women (equal pay and the ability to make political decisions), which in the end affects economic development. Although, it should be noted that the states of the former Eastern

bloc record an increase in the wealth of the society, in the analysed period the disproportions towards the West-North neighbours from the Baltic Sea remain at a similar level.

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Magdalena Tomala – doktor habilitowana, adiunkt na Uniwersytecie Jana Kochanowskiego w Kielcach. W wyniku badań nad regionem Morza Bałtyckiego napisała monografię pt. *Wymiar północny w polityce Unii Europejskiej* (2009). Druga monografia została zatytułowana *Grenlandia w systemie stosunków międzynarodowych w świetle teorii Immanuela Wallersteina systemów-światów*. Opublikowała także liczne artykuły naukowe oraz monografie pod redakcją. Zainteresowania naukowe: stosunki międzynarodowe państw Europy Północnej w wymiarze regionalnym i globalnym, procesy integracji europejskiej, problematyka bezpieczeństwa ekologicznego i bezpieczeństwa energetycznego.

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