Armed Conflicts And Multicriterial Evaluation Of The Development Of The Country In A Long-Term Perspective

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Abstract

Armed conflicts have significant impact on economics, although their indirect influence is difficult to assess. Indirect effects of the conflict can occur both before and after the conflict and result from changes in the allocation of resources, which in turn results i.a. from a shortage of investment.

The influence of conflicts is not always assumed to be negative, as they may contribute to the improvement of effectiveness. In the paper methods of constructing multi-criteria rankings were used to assess the situation of selected countries in the period 1810-1980. In the next step, evaluation results were analysed for the relationship between the occurrence of conflicts and situation of country. Due to the change in the nature of armed conflicts in the analyzed period three sub-periods were specified: before 1910, 1910-1940 and after 1940. Results depend on the assumptions, i.e. the methods used to construct rankings and the assumptions regarding the relevance of the criteria.

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1 Introduction

Economic agents react to changes in the environment. Therefore war modifies the allocation of resources as capital and labor move to purposes related to conflict which can lead to the shortage of investment. Impact of civil war on economic growth was discussed among others by (Kang, Meernik, 2005). Although many indicators used for analysis of the impact of war base on direct effects like damage costs, indirect influence is difficult to assess (cf. Lacina and Gleditsch, 2005). Those effects occur in many spheres related to the development and quality of life, like life expectancy (Plümper and Neumayer, 2006) or mortality (Li and Wen 2005). Impact of war on trade is one of the most discussed topics (Barbieri and Levy, 1999; Feldman and Sadeh, 2018). Economists also take into consideration changes in supply of basic goods and services like education (Lai and Thyne, 2007) or healthcare (Plümper and Neumayer, 2006; Lai and Tyne, 2007). This results not only in lowered quality of life and life satisfaction, but has serious economic consequences as it reduces the quality of human capital and contributes towards costs increase. On the other hand, those changes may result in the

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improvement of efficiency (Kang and Meernik, 2005). All of the effects mentioned above may occur both before and after conflict. Not only wars were included among conflicts analysed in the paper due to the fact that even smaller conflicts or tensions can cause widespread results or they can escalate (Barbieri and Levy, 1999).

2 Methods and data

According to (Gal et al., 1999) one of the conditions justifying the use of multicriteria rankings is the situation when criteria are greatly different which makes expressing them on one common scale a very difficult task. Rankings allow to overcome problems resulting from unclear compensation or preference thresholds. In case of the assessment of the level of development the abovementioned features make them very useful and efficient tools.

In the paper following methods were used to construct multicriteria rankings: WSA (the method also referred to as Simple Additive Weighting, cf. Geldermann and Rentz, 2000), further denoted in tables by W, PROMETHEE II (Brans et al., 1986), further denoted in tables by P, and TOPSIS (Hwang and Yoon, 1981), further denoted in tables by T. For PROMETHEE II all criteria were considered being of the usual (I) type. Each method is based on different approach towards ranking. They are used for ranking economic entities like countries and regions, often in combination with other approaches.

All three methods require an analyst to specify the set of weights. In case of decisionaiding problems weights are either directly given by the decision-maker or derived via an interview. In the paper criteria were analyzed in accordance with two sets of weights. The first set, hereinafter referred to as E variant is based on the assumption that all criteria are equally important. Therefore for each criterion its weight w_i is computed as follows:

$$w_i = \frac{1}{N} \tag{1}$$

where: i=1,...,N, and N denotes the number of criteria.

In the second variant hereinafter referred to as NE weights were derived assuming that criteria should be complementary not substitutional to one another. It can be supposed that if values of a criterion are not clearly differentiated between alternatives it should not be considered as important as it does not provide much additional information. Similarly, it may be assumed that correlated variables transfer the same information. Therefore for each criterion weight w_i is computed in accordance with the procedure (Sielska, 2010) similar to the CRITIC method (Diakoulaki et al., 1995). In the first step coefficients of variation of

criteria values are computed and normalized (2) and secondly relations between criteria are considered (3-4).

$$v_i = \frac{S_i}{\overline{f}_i} \tag{2}$$

$$w_{i}^{1} = \frac{|v_{i}|}{\sum_{i=1}^{N} |v_{i}|}$$
(3)

$$w_i^2 = \frac{\sum_{j=1}^{N} |r_{ij}^P|}{\sum_{i=1}^{N} \sum_{j=1}^{N} |r_{ij}^P|}$$
(4)

where: S_i – standard deviation of the *i*-th criterion, f_i – average of the *i*-th criterion; i=1,..,N, r_{ij}^P – coefficient of correlation between criteria *i* and *j*.

Final weights for NE variant are computed as follows:

$$w_i = \left(\frac{w_i^1}{w_i^2}\right) / \left(\sum_{i=1}^N \frac{w_i^1}{w_i^2}\right)$$
(5)

Data used in the paper come from (van Zanden et al., 2014). Variables approximate the level of development by taking into account 3 different spheres: economic performance, population health and the quality of environment. Due to the varying availability of data sets of criteria differ between periods. However, in case of single missing observations, missing data was supplemented either with the average of neighboring values or with values determined using a trend function. The following criteria were maximized: GDP per capita expressed in 1990 PPP dollars (period 1820-1980); mean height (1820-1980); democracy index (1850-1980); life expectancy at birth (1870-1980); mean species abundance (1820-1980); polity2 index (1850-1980) and real wage of construction workers (1820-1980). The set of minimized criteria includes: homicide rates for 100 000 people (1850-1980); SO2 emission per capita (1850-1980); income inequality measured by Gini index (1820-1980); CO2 emission per capita (1820-1980). Data on occurrence of conflicts come from Clioinfra database (https://www.clio-infra.eu). The following countries were analyzed: Great Britain (GBR), Netherlands (NLD), France (FRA), Germany (DEU), Italy (ITA) and Spain (ESP).

3 Results and discussion

The first place in the ranking (the Netherlands) turned out to be very stable. Results obtained using PROMETHEE method were similar for both variants of weights (see Tables 1-2). Letters in the indices in tables denote the method used for construction of the ranking.

NLD $1^{W}2^{T}1^{P}$ $2^{W}2^{T}2^{P}$ $2^{W}3^{T}2^{P}$ $2^{W}5^{T}2^{P}$ $2^{W}5^{T}2^{P}$	FRA $3^{W}5^{T}6^{P}$ $4^{W}6^{T}6^{P}$ $5^{W}5^{T}5^{P}$ $3^{W}3^{T}3^{P}$		ITA 6w4T3P 6w5T4P 6w6T6P w T F	
$ \frac{1^{W}2^{T}1^{P}}{2^{W}2^{T}2^{P}} \\ \frac{2^{W}3^{T}2^{P}}{2^{W}5^{T}2^{P}} \\ \frac{2^{W}5^{T}2^{P}}{2^{W}5^{T}2^{P}} $	$3^{W}5^{T}6^{P}$ $4^{W}6^{T}6^{P}$ $5^{W}5^{T}5^{P}$ $3^{W}3^{T}3^{P}$	$ 4^{W}3^{T}5^{P} \\ 3^{W}3^{T}3^{P} \\ 3^{W}2^{T}3^{P} \\ 4^{W}4^{T}6^{P} $	$6^{W}4^{T}3^{P}$ $6^{W}5^{T}4^{P}$ $6^{W}6^{T}6^{P}$	$5^{W}1^{T}4^{P}$ $5^{W}1^{T}5^{P}$ $4^{W}1^{T}4^{P}$
$2^{W}2^{T}2^{P}$ $2^{W}3^{T}2^{P}$ $2^{W}5^{T}2^{P}$ $2^{W}5^{T}2^{P}$	$4^{W}6^{T}6^{P}$ $5^{W}5^{T}5^{P}$ $3^{W}3^{T}3^{P}$	$3^{W}3^{T}3^{P}$ $3^{W}2^{T}3^{P}$ $4^{W}4^{T}6^{P}$	$6^{W}5^{T}4^{P}$ $6^{W}6^{T}6^{P}$	$5^{W}1^{T}5^{P}$ $4^{W}1^{T}4^{P}$
$2^{W}3^{T}2^{P}$ $2^{W}5^{T}2^{P}$	5 ^w 5 ^T 5 ^P 3 ^w 3 ^T 3 ^P	$3^{W}2^{T}3^{P}$ $4^{W}4^{T}6^{P}$	$6^{W}6^{T}6^{P}$	$4^{W}1^{T}4^{P}$
$2^{W}5^{T}2^{P}$	$3^{W}3^{T}3^{P}$	$4^{W}4^{T}6^{P}$		
oWeToP			$5^{W}1^{T}5^{P}$	$6^{W}2^{T}4^{P}$
2.5.5	$4^{W}3^{T}2^{P}$	$3^{W}4^{T}3^{P}$	$5^{W}1^{T}6^{P}$	$6^{W}2^{T}5^{P}$
$1^{W}2^{T}3^{P}$	$2^{W}3^{T}2^{P}$	$4^{W}4^{T}4^{P}$	$5^{W}5^{T}6^{P}$	$6^{W}6^{T}5^{P}$
$1^{W}2^{T}3^{P}$	$3^{W}3^{T}2^{P}$	$4^{W}4^{T}4^{P}$	$6^{W}6^{T}6^{P}$	$5^{W}5^{T}5^{P}$
$1^{W}2^{T}2^{P}$	$3^{W}4^{T}3^{P}$	$4^{W}3^{T}4^{P}$	$6^{W}5^{T}6^{P}$	$5^{W}6^{T}5^{P}$
$1^{W}2^{T}1^{P}$	$3^{W}4^{T}3^{P}$	$4^{W}3^{T}4^{P}$	$5^{W}5^{T}5^{P}$	$6^{W}6^{T}6^{P}$
$1^{W}2^{T}1^{P}$	$3^{W}4^{T}4^{P}$	$4^{W}3^{T}3^{P}$	$5^{W}5^{T}5^{P}$	$6^{W}6^{T}6^{P}$
$1^{W}2^{T}1^{P}$	$3^{W}3^{T}3^{P}$	$4^{W}4^{T}4^{P}$	$6^{W}5^{T}6^{P}$	$5^{W}5^{T}5^{P}$
$1^{W}1^{T}1^{P}$	$3^{W}3^{T}3^{P}$	$5^{W}4^{T}4^{P}$	$6^{W}5^{T}4^{P}$	$4^{W}5^{T}6^{P}$
$1^{W}3^{T}1^{P}$	$3^{W}4^{T}3^{P}$	$5^{W}2^{T}4^{P}$	$6^{W}5^{T}5^{P}$	$4^{W}6^{T}6^{P}$
$1^{W}2^{T}1^{P}$	$5^{W}3^{T}4^{P}$	$4^{W}4^{T}5^{P}$	$6^{W}5^{T}3^{P}$	$2^{W}6^{T}6^{P}$
$2^{W}2^{T}1^{P}$	$4^{W}4^{T}4^{P}$	$4^{W}3^{T}5^{P}$	$6^{W}5^{T}6^{P}$	$1^{W}6^{T}3^{P}$
$2^{W}1^{T}1^{P}$	$3^{W}2^{T}3^{P}$	$5^{W}3^{T}6^{P}$	$6^{W}5^{T}5^{P}$	$1^{W}6^{T}2^{P}$
	$2^{w}5^{1}3^{p}$ $1^{w}2^{T}3^{p}$ $1^{w}2^{T}3^{p}$ $1^{w}2^{T}2^{p}$ $1^{w}2^{T}1^{p}$ $1^{w}2^{T}1^{p}$ $1^{w}2^{T}1^{p}$ $1^{w}3^{T}1^{p}$ $1^{w}2^{T}1^{p}$ $2^{w}2^{T}1^{p}$	$\begin{array}{rcrcrc} 2^{w}5^{1}3^{p} & 4^{w}3^{1}2^{p} \\ 1^{w}2^{T}3^{p} & 2^{w}3^{T}2^{p} \\ 1^{w}2^{T}3^{p} & 3^{w}3^{T}2^{p} \\ 1^{w}2^{T}2^{p} & 3^{w}4^{T}3^{p} \\ 1^{w}2^{T}1^{p} & 3^{w}4^{T}3^{p} \\ 1^{w}2^{T}1^{p} & 3^{w}4^{T}4^{p} \\ 1^{w}2^{T}1^{p} & 3^{w}3^{T}3^{p} \\ 1^{w}1^{T}1^{p} & 3^{w}3^{T}3^{p} \\ 1^{w}3^{T}1^{p} & 3^{w}4^{T}3^{p} \\ 1^{w}2^{T}1^{p} & 5^{w}3^{T}4^{p} \\ 2^{w}2^{T}1^{p} & 4^{w}4^{T}4^{p} \\ 2^{w}1^{T}1^{p} & 3^{w}2^{T}3^{p} \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Table 1. Development ranks (equal weights).

In the next stage of the analysis, the relationship between the occurrence of conflicts and the rank and evaluation result for a given country was examined. The examination is based on correlation coefficients and analysis of variance. Therefore, the results do not refer to causal relationships, only the coexistence of phenomena. A significance level of 0.05 was assumed.

In the first step, analysis of variance was carried out. Binary variables refer to the occurrence of conflicts. Results are reported in Table 3. Variable InterX means that the country participated in an international conflict X decades earlier and variable IntraX refers to the occurrence of intranational conflict X decades earlier. In the analysis both evaluations and ranks were taken into account. * denotes the significance at 0.05 level. First element in pair denotes the significance of differences in ranks, second element denotes the significance of differences in evaluations. For E variant it can be seen that evaluation results and ranks depend on the occurrence of internal conflicts for all methods except TOPSIS.

2 th Professor Aleksander Zelias International Conference	on Modelling and Forecasting of	of Socio-Economic Phenomena
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period	GBR	NLD	FRA	DEU	ITA	ESP
1820-1830	$6^{W}6^{T}5^{P}$	$1^{W}1^{T}1^{P}$	$2^{W}2^{T}4^{P}$	$5^{W}4^{T}6^{P}$	$4^{W}5^{T}3^{P}$	$3^{W}3^{T}2^{P}$
1830-1840	$6^{W}6^{T}5^{P}$	$1^{W}1^{T}1^{P}$	$3^{W}2^{T}6^{P}$	$5^{W}4^{T}4^{P}$	$4^{W}5^{T}2^{P}$	$2^{W}3^{T}3^{P}$
1840-1850	$6^{W}6^{T}5^{P}$	$1^{W}1^{T}1^{P}$	$3^{W}3^{T}6^{P}$	$4^{W}4^{T}4^{P}$	$5^{W}5^{T}2^{P}$	$2^{W}2^{T}3^{P}$
1850-1860	$6^{W}5^{T}5^{P}$	$2^{W}2^{T}4^{P}$	$1^{W}1^{T}3^{P}$	$3^{W}4^{T}6^{P}$	$5^{W}3^{T}2^{P}$	$4^{W}6^{T}1^{P}$
1860-1870	$2^{W}2^{T}2^{P}$	$4^{W}4^{T}5^{P}$	$1^{W}1^{T}1^{P}$	$5^{W}5^{T}6^{P}$	$6^{W}6^{T}4^{P}$	$3^{W}3^{T}2^{P}$
1870-1880	$2^{W}2^{T}2^{P}$	$4^{W}4^{T}4^{P}$	$1^{W}1^{T}1^{P}$	$5^{W}6^{T}6^{P}$	$6^{W}5^{T}5^{P}$	$3^{W}3^{T}3^{P}$
1880-1890	$3^{W}2^{T}2^{P}$	$5^{W}5^{T}4^{P}$	$1^{W}1^{T}1^{P}$	$4^{W}4^{T}5^{P}$	$6^{W}6^{T}6^{P}$	$2^{W}3^{T}3^{P}$
1890-1900	$3^{W}2^{T}2^{P}$	$4^{W}4^{T}3^{P}$	$1^{W}1^{T}1^{P}$	$5^{W}5^{T}6^{P}$	$6^{W}6^{T}5^{P}$	$2^{W}3^{T}4^{P}$
1900-1910	$4^{W}4^{T}3^{P}$	$2^{W}3^{T}2^{P}$	$1^{W}1^{T}1^{P}$	$5^{W}6^{T}6^{P}$	$6^{W}5^{T}4^{P}$	$3^{W}2^{T}5^{P}$
1910-1920	$4^{W}4^{T}3^{P}$	$1^{W}1^{T}1^{P}$	$2^{W}2^{T}2^{P}$	$3^{W}3^{T}4^{P}$	$6^{W}6^{T}5^{P}$	$5^{W}5^{T}6^{P}$
1920-1930	$3^{W}4^{T}2^{P}$	$1^{W}1^{T}1^{P}$	$2^{W}2^{T}3^{P}$	$5^{W}5^{T}6^{P}$	$6^{W}6^{T}5^{P}$	$4^{W}3^{T}4^{P}$
1930-1940	$2^{W}2^{T}2^{P}$	$1^{W}1^{T}1^{P}$	$3^{W}4^{T}4^{P}$	$6^{W}6^{T}6^{P}$	$4^{W}3^{T}3^{P}$	$5^{W}5^{T}5^{P}$
1940-1950	$4^{W}4^{T}3^{P}$	$1^{W}1^{T}1^{P}$	$2^{W}2^{T}4^{P}$	$6^{W}6^{T}6^{P}$	$3^{W}3^{T}2^{P}$	$5^{W}5^{T}5^{P}$
1950-1960	$2^{W}3^{T}3^{P}$	$1^{W}1^{T}1^{P}$	$4^{W}4^{T}4^{P}$	$5^{W}5^{T}6^{P}$	$3^{W}2^{T}2^{P}$	$6^{W}6^{T}5^{P}$
1960-1970	$3^{W}4^{T}3^{P}$	$1^{W}1^{T}1^{P}$	$4^{W}5^{T}5^{P}$	$6^{W}6^{T}6^{P}$	$2^{W}3^{T}2^{P}$	$5^{W}2^{T}4^{P}$
1970-1980	$3^{W}5^{T}3^{P}$	$1^{W}2^{T}1^{P}$	$4^{W}3^{T}5^{P}$	$6^{W}6^{T}6^{P}$	$5^{W}4^{T}4^{P}$	$2^{W}1^{T}2^{P}$

Table 2. Development ranks (unequal weights).

In the second step of analysis, correlations between the intensity of conflicts and evaluation results were examined. Intensity of conflict was defined as the number of years during which a conflict took place in a given decade (variables IInterX and IintraX, where X denotes a lag in decades). Correlation coefficients are presented in Table 4. * denotes the significance at 0.05 level. Results show that in the case of equal importance of criteria, relationships were not strong but in line with predictions, i.e. negative for the intensity of internal conflicts, positive for the intensity of external ones. The only exception was the TOPSIS method, in case of which no statistically significant relationship between intensity of internal conflicts and evaluations can be seen. In the case of different importance of criteria significant relationships were found only for external conflicts that took place from 2 to 6 decades earlier.

Conflict	E W	ΕT	E P	NE W	NE T	NE P
Intra0	-,*	-,-	*,*	-,-	-,-	-,-
Intra1	*,*	-,-	*,*	-,-	-,-	-,-
Intra2	*,*	-,-	-,*	-,-	-,-	-,-
Intra3	*,*	-,-	*,*	-,-	-,-	-,-
Intra4	*,*	-,-	*,*	*,-	-,-	-,-
Intra5	*,*	-,-	-,*	-,-	-,-	-,-
Intra6	*,*	-,-	-,*	-,-	-,-	-,-
Inter0	*,-	-,-	*,-	-,-	-,-	-,-
Inter1	-,-	-,-	-,-	-,-	-,-	-,-
Inter2	-,-	-,-	-,-	-,-	-,-	-,-
Inter3	-,-	-,-	-,-	-,-	-,-	-,-
Inter4	-,-	-,-	-,-	-,-	-,-	-,-
Inter5	-,-	*,-	*,-	-,-	-,-	-,-
Inter6	-,-	*,*	*,*	-,-	-,-	*,-

Table 3. F-test results for the differences in ranks, evaluations and occurrence of conflicts.

Table 4. Correlation coefficients for evaluations and intensity of conflicts.

Conflict	E W	ΕT	E P	NE W	NE T	NE P
IIntra0	-0,200	-0,097	-0,218*	-0,042	-0,050	-0,050
IIntra1	-0,265*	-0,133	-0,277*	-0,098	-0,071	-0,071
IIntra2	-0,379*	-0,128	-0,386*	-0,173	-0,103	-0,14
IIntra3	-0,397*	-0,081	-0,394*	-0,113	-0,012	-0,136
IIntra4	-0,384*	-0,031	-0,351*	-0,142	-0,028	-0,128
IIntra5	-0,349*	0,018	-0,312*	-0,160	-0,063	-0,110
IIntra6	-0,339*	-0,005	-0,305*	-0,181	-0,098	-0,092
IInter0	0,280*	0,172	0,297*	0,109	0,089	0,194
IInter1	0,283*	0,202*	0,281*	0,183	0,167	0,165
IInter2	0,323*	0,245*	0,336*	0,276*	0,258*	0,204*
IInter3	0,325*	0,279*	0,32*	0,336*	0,312*	0,272*
IInter4	0,262*	0,214*	0,288*	0,264*	0,235*	0,251*
IInter5	0,324*	0,322*	0,391*	0,283*	0,261*	0,336*
IInter6	0,350*	0,387*	0,411*	0,311*	0,305*	0,326*

Before 1910 the relationships between international conflicts and evaluations are positive, statistically significant but not strong (Table 5). In case of internal conflicts and equal criteria weights the relationships are often negative, weak and not statistically significant. ANOVA shows the significant impact of international conflicts lagged by maximum 3 decades.

In the period 1910-1940 relationships of evaluations and internal conflicts in case of equal weights of criteria are mostly negative and significant (the only exceptions are results obtained for TOPSIS method) while relationships obtained for international conflicts lagged by 3-5 decades are positive. ANOVA shows significant impact of internal conflicts (Table 6).

After 1940 differences in directions of influence of internal and international conflicts are unclear. Chosen internal conflicts and international conflicts lagged by 3 decades have strong negative impact on the evaluations. Similarly, the influence of international conflicts lagged by 6 decades is strong and positive. Also the ANOVA results show the significant influence of some internal and international conflicts (Table 7).

Conflict	E W	ЕТ	E P	NE W	NE T	NE P
IIntra0	-0.184	-0.016	-0.201	0.018	0.004	0.067
IIntra1	-0.202	0.018	-0.250	0.043	0.069	0.069
IIntra2	-0.345*	-0.001	-0.354*	-0.046	0.024	0.024
IIntra3	-0.333*	-0.080	-0.321*	0.006	0.104	0.000
IIntra4	-0.228	-0.079	-0.231	0.153	0.254 [•]	0.077
IIntra5	-0.123	-0.055	-0.055	0.201	0.231	0.217
IIntra6	-0.125	0.000	-0.040	0.122	0.148	0.285*•
IInter0	0.667*•	0.440^{*}	0.720*•	0.232	0.170	0.400^{*}
IInter1	0.587*•	0.470^{*}	0.596*•	0.346^{*}	0.313*	0.326^{*}
IInter2	0.518*•	0.411*•	0.518*•	0.368*•	0.342^{*}	0.260
IInter3	0.443*•	0.430^{*}	0.425*•	0.389*•	0.345^{*}	0.327^{*}
IInter4	0.277^{*}	0.350^{*}	0.330^{*}	0.222	0.190	0.2400
IInter5	0.349*	0.471 ^{*•}	0.505*•	0.202	0.156	0.383^*
IInter6	0.284^*	0.502*•	0.406^{*}	0.195	0.231	0.273^*

Table 5. Correlation coefficients for evaluations and intensity of conflicts before 1910.

Conflict	EW	ET	EP	NE W	NE T	NE P
IIntra0	-0.315	-0.045	-0.301	-0.071	-0.006	-0.151
IIntra1	-0.418 ^{*•}	-0.100	-0.369•	-0.33	-0.327	-0.247
IIntra2	-0.453*•	-0.146	-0.457 ^{*•}	-0.276	-0.224	-0.287
IIntra3	-0.465*•	-0.096	-0.452 ^{*•}	-0.170	-0.082	-0.220
IIntra4	-0.577*•	-0.192	-0.51 ^{*•}	-0.396•	-0.337	-0.347•
IIntra5	-0.681 ^{*•}	-0.302	-0.638*•	-0.52*	-0.458*	-0.461 ^{*•}
IIntra6	-0.570*•	-0.313•	-0.535*•	-0.417*•	-0.382 [•]	-0.342•
IInter0	-0.236•	-0.368•	-0.315 [•]	-0.101	-0.076	-0.210
IInter1	0.012	-0.109•	0.009	0.024	-0.008	0.012
IInter2	0.264	0.233	0.311	0.292	0.279	0.283
IInter3	0.635*	0.577^{*}	0.678^{*}	0.607^{*}	0.575^{*}	0.638^{*}
IInter4	0.651^{*}	0.550^{*}	0.644^{*}	0.681^{*}	0.653^{*}	0.651^{*}
IInter5	0.437*	0.371	0.402	0.519^{*}	0.517^{*}	0.432*
IInter6	0.310	0.308	0.310	0.399	0.388	0.334

Table 6. Correlation coefficients for evaluations and intensity of conflicts 1910-1940.

Table 7. Correlation coefficients for evaluations and intensity of conflicts after 1940.

Conflict	E W	ЕТ	E P	NE W	NE T	NE P
IIntra0	-0.147	-0.278	-0.247 [•]	-0.223 [•]	-0.309	-0.335•
IIntra1	-0.442•	-0.693 ^{*•}	-0.39 [•]	-0.694 ^{*•}	-0.725 ^{*•}	-0.631 ^{*•}
IIntra2	-0.323	-0.541*	-0.301	-0.498^{*}	-0.495*	-0.436
IIntra3	-0.454 [•]	-0.182	-0.473 ^{*•}	-0.376	-0.306	-0.341
IIntra4	-0.343	0.147	-0.278	-0.226	-0.032	-0.097
IIntra5	-0.096	0.427	-0.071	0.035	0.290	0.064
IIntra6	-0.352	0.126	-0.364	-0.216	-0.008	-0.218
IInter0	-0.046	0.014	-0.010	0.128	0.098	0.143
IInter1	-0.249 [•]	-0.275	-0.309•	-0.124 [•]	-0.202	-0.206
IInter2	-0.207	-0.267	-0.203	-0.096	-0.208	-0.139
IInter3	-0.613 ^{*•}	-0.498 ^{*•}	-0.679 ^{*•}	-0.416•	-0.398•	-0.602*•
IInter4	-0.417 [•]	-0.374	-0.420 [•]	-0.374	-0.363	-0.373 [•]
IInter5	0.095	0.118	0.048 [•]	0.107	0.256	0.005
IInter6	0.709^{*}	0.454	0.667^{*}	0.609^{*}	0.560^{*}	0.521^{*}

Conclusion

Armed conflicts influence not only the material sphere of the economics but also other factors that decide of the country's development level like population health, life expectancy or quality of the environment. Results of the analysis provided in the paper suggest that there is a relationship between evaluations of the country's development and internal conflicts that occurred on its territory. There exists a negative relationship between evaluations and the intensity of internal conflicts and positive relationship in case of external ones. However, detailed conclusions depend on assumptions concerning importance of criteria and specifics of the ranking method. Relationships mentioned above evolved in 3 analyzed periods: before 1910, 1910-1940 and after 1940.

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