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Marriage, divorce and economic growth

Abstract

The aim of the study is to estimate the impact of the so-called family social capital (family ties capital) on economic growth. We hypothesise that marital dissolution expresses decrease in the capacity for cooperation, collaboration and sharing responsibility not only within the family but also on a professional level. Thus, an increase in the divorce to marriage rate is accompanied by a slowdown in economic growth.

The divorce rate is regarded here as an indirect cause of the slowdown. The reasons stem from the breakdown of cooperation and collaboration, as well as increased risk, trust reduction, and the shortening of the decision-making time horizon accompanying divorces and resulting from divorces. These phenomena directly affect the working members of the family in which a divorce takes place. According to the main hypothesis, their impact is transferred to professional life and concerns employee teams.

For the study, we employ econometric models, the first one for Poland and the second for 15 European Union countries, for the period 1993–2017.

Keywords: divorce rate, economic growth, the European Union, social capital

JEL Classification: J11, O43, O47, Z13

1. Introduction

Since the beginning of the 1990s, social capital—expressing people’s capacity for selfless cooperation, the density of the network of interpersonal contacts and the so-called generalised trust—has gained in popularity in economics. Econometric research conducted from the mid-1990s has confirmed the positive impact of measures of this capital on economic growth. Family ties capital—the so-called family social capital—is an important component of social capital

The aim of the study is to estimate the impact of “family social capital” on economic growth. We hypothesise that marital dissolution (measured by the rate of divorces to marriages) expresses decrease in the capacity for cooperation, collaboration and sharing responsibility not only within the family but also on a professional plane (this applies to adult working family members). Thus, an increase in the divorce to marriage rate is accompanied by a slowdown in economic growth.¹

The divorce rate is not seen here as a direct cause of the slowdown. The reasons stem from the breakdown of cooperation and collaboration, as well as increased risk, trust reduction, and the shortening of the decision-making time horizon accompanying divorces and resulting from divorces. These phenomena directly affect adults, the working members of the family in which a divorce takes place. According to the main hypothesis, their impact is transferred to professional life and concerns employee teams.

For the study, we use econometric models, the first one for Poland and the second for 15 European Union countries, for the period 1993–2017.

2. Social capital, family social capital and economic growth

Social capital is usually defined as the capacity for altruistic cooperation (Coleman, 1988) or connections among individuals—social networks and norms of reciprocity and trustworthiness that arise from them (Putnam, 2001). This has a positive effect on economic processes.

The positive impact of social capital in economics can be explained as follows. Firstly, in conditions of incomplete information, the transactions concluded are not Pareto optimal. Due to more frequent social contacts, business entities increase the pool of available information, which allows them to “get closer” to the Pareto solution (Durlauf & Fafchamps, 2005).

Secondly, the positive effects of social capital, especially trust, are postulated by game theories (Durlauf & Fafchamps, 2005, p. 1655; Paldam, 2000). For example, in the prisoner’s dilemma, a standard solution is that both players cheat. When both sides trust each other, the optimal solution is possible—cooperation.

¹ It seems that this hypothesis was confirmed for the first time by Sztadynger (2009).

Thirdly, based on many models, human capital is an important factor in economic growth. Empirical research indicates a strong positive relationship between social and human capital (Glaeser, Laibson & Sacerdote, 2002).

The assumption about the beneficial influence of social capital on the economy, including economic growth, has been verified empirically. Knack and Keefer first found a strong association between trust and the long-run growth rate.² Zak and Knack (2001) claim that an increase in the percentage of people declaring trust in most people (so-called generalised trust) contributes to an increase in economic growth. Beugelsdijk and van Schaik (2005) argue that economic growth positively depends on social capital measured by the percentage of people belonging to voluntary social groups (associations, etc.) or working on a voluntary basis. In our earlier studies, we confirmed the impact of crime and voter turnout on economic growth.³

Family social capital—family ties capital—is a special type of social capital.⁴ The family can develop the capacity for altruistic cooperation, strengthen trust and contribute to increasing the density of social networks—and, thus, to increasing social capital. This view is present in the literature. Slany (2003) claims that:

the family is the most powerful social capital; its formation is and should be the most important type of investment in social capital.

The family motivates economic, social and cultural activity (Kocik, 2006).

Liberda (2000) shows that the savings rate increases as the number of people in the household increases. Similarly, Anioła-Mikołajczyk and Gołaś (2014) estimate the propensity of the household to save (i.e., to declare they have any positive amount of savings). The result shows that the probability of having savings is highest among the households of married people.

The study focuses on the impact of family social capital, measured by the divorce to marriage ratio, on economic growth. We interpret an increase in the number of divorces in relation to marriages as a decline in family social capital. This relationship may express, among others, family, social and economic cooperation as well as uncertainty and the risk present in people's lives (Sztudynger, 2009, pp. 191–192). Giddens points out that for many people a divorce results in a loss of “confidence in their own judgements and capabilities [...], [they] become discouraged about setting long-range or even short-range goals, much less working towards these goals” (1991, p. 17).

Therefore, we **put forward the hypothesis that increased marital dissolution** (the number of divorces related to marriages) **causes a slowdown in economic growth**. In our study, this rate also acts as an indicator of the breakdown of families.

² Knack and Keefer's (1997) research employed data taken from the 1981 and 1991 WVS (World Value Survey) for 29 countries from different continents, operating within market economies.

³ Cf., e.g., Paszkiewicz, 2011; Sztudynger, 2005.

⁴ Gary S. Becker, a Nobel laureate, made an important contribution to combining family and economic problems in *A Treatise on the Family* (1993).

The divorce rate is therefore correlated with an economic slowdown, not as a cause but as a representative of the real cause, which is the breakdown of families.

In the tradition of most societies, marriage is the most public and solemnly concluded cooperation agreement. The importance of this agreement is that it is concluded for an infinite period (in Christian marriages: “till death do us part”). The contract is recognised by the state, as it is registered by relevant institutions, and its dissolution usually requires a court decision. Divorce, i.e., the failure to honour the special contract which a marriage is, calls into question the adherence to other contracts by a given person after the divorce, undermining the trust in him or her. In particular, it may undermine trust in the performance of the contract of employment and any obligations related to it.⁵

Every economic relationship or activity is a result of an interaction between people. Hence, the great significance of relationships between people and the quality of their lives created together.⁶

The role of financial resources in quality of life is important, and in Poland even more so, due to the fact that income differentiation has increased by about 50%.⁷ It is obvious that quality of life depends on many other factors, especially family relationships. These relationships are characterised by emotional closeness, strong feelings, though not always positive, care and help, or lack thereof, love or hatred. The quality of a person’s life is created in the circle of closest people, the immediate circle, the family, and family relationships are, among others, also based on material factors, though mainly on mutual feelings of love, acceptance, respect and the accompanying propensity for help, honesty and trust.⁸ These values may grow with special intensity or be destroyed in families and in relationships with children.⁹

A negative family and marital scenario includes reluctance to help, selfishness, dishonesty and a lack of trust, leading to a loss of sense of security, the dissolution of marriage, a low fertility rate and divorce,¹⁰ to impermanence of life. Therefore, we do not mean just any family but the family with the above-mentioned values. These values are undoubtedly determinants of a eudaemonistic attitude which is accompanied by greater satisfaction with life. This is confirmed by Social Diagnosis 2015:

⁵ Keeping agreements was considered the most important element of employee-employer communication (approx. 75%). It was more important that, among others, trust, reliable information and substantive preparation (based on a survey of over 1,200 people) (Fedorczyk, Kliszko & Męcina, 2009, pp. 70–72).

⁶ In the resolution of the Congress on the 100th anniversary of the Polish Statistical Association (Poznań 2012) the quality of life study was defined as the main task of statistics and economics.

⁷ As a result of the economic transformation after 1990, income differentiation grew until 2006.

⁸ One sixth of economic growth in Europe depends on willingness to help, honesty and trust (Ambroziak, Starosta & Sztudynger, 2016).

⁹ The term “relational capital” is often used in this respect, and it is emphasised that there is no substitute for it, and it cannot be bought with money.

¹⁰ Of the factors listed here, only divorce and fertility are observable (statistically recorded).

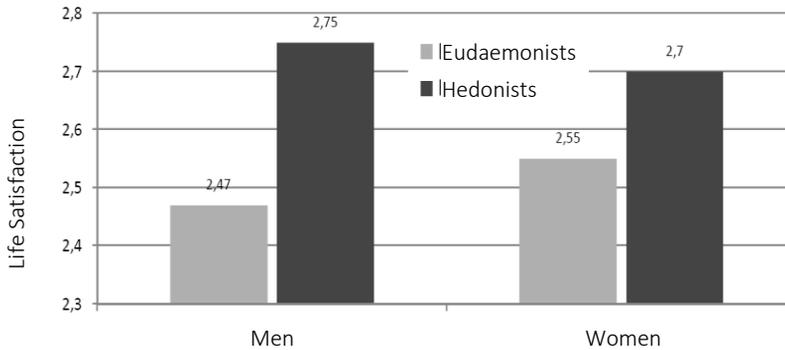


Figure 1. Life satisfaction according to eudaemonists and hedonists

Note. Life satisfaction on a scale from 1 ("my life is wonderful") to 7 ("my life is horrible"). Adopted from "Social diagnosis 2015. Objective and subjective quality of life in Poland," by J. Czapirski & T. Panek (Eds.), 2015, *Contemporary Economics. Quarterly of University of Finance and Management in Warsaw*, 9(4), p. 208.

To sum up, we will analyse family social capital and its impact on GDP growth using publicly available information on marriages (positive factor) and divorces (negative factor) to estimate family social capital. In a future investigation, we are going to introduce fertility as a third measure of family social capital.

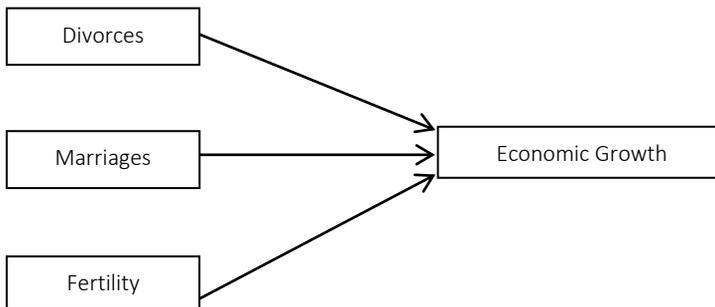


Figure 2. Family-related factors of economic growth

We put forward the hypothesis that these measures have an impact on GDP growth.

3. Divorce and GDP

This section describes the empirical models verifying the effects of divorce on economic growth. We conduct two empirical studies, both based on a similar specification of an econometric model explaining GDP growth. The first one is

based on data for Poland, while the second—data for 15 European Union countries (which formed the EU before 2004). Both models were estimated using annual data from 1993 to 2017.

The number of divorces related to the sum of marriages and divorces (divorce rate—div) is presented below.

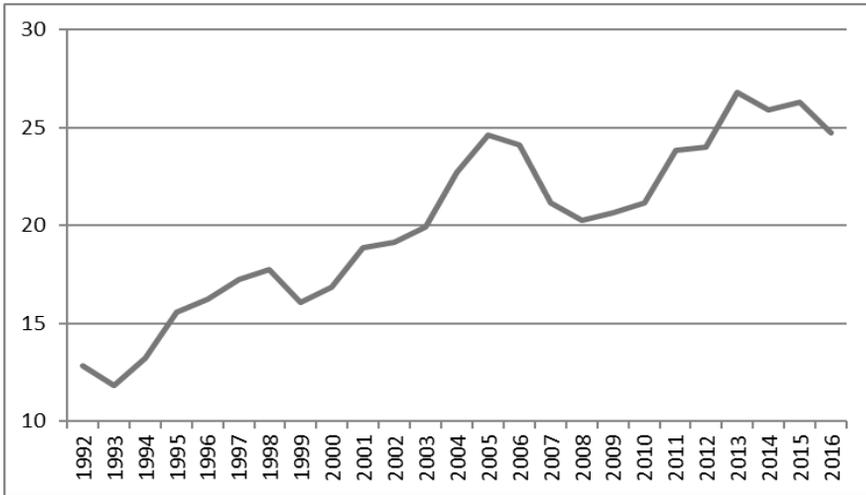


Figure 3. The number of divorces to the sum of marriages and divorces in the years 1992–2016

Note. Adapted from the Polish Central Statistical Office data.

It can be noted that the number of divorces to the sum of divorces and marriages in the analysed period increased.¹¹

We assume that economic growth depends first of all on investments in physical capital and—in order to verify the research hypothesis—on the divorce to marriage rate as a measure of the breakdown of family capital.

Due to the possible existence of a reverse relationship (the impact of economic growth on divorce decisions), the divorce to marriage rate is lagged by one year, which means that the study takes into account, according to Granger's concept of causality, only the direction of causality assumed at the beginning (the impact of marital dissolution on economic growth).

As a result, the following formula has been adopted:

$$\Delta GDP_t / GDP_{t-1} = \alpha_0 + \beta_1 \Delta inv_{t-1} + \beta_2 div_t + \varepsilon_t$$

where:

¹¹ Similarly, this indicator is seen to have increased in 15 countries of the “old” European Union. Throughout the entire study period, however, it remained at a higher, “worse,” level than in Poland.

$\Delta GDP_t / GDP_{t-1}$	– GDP growth rate at constant prices (%)
div	– the rate of the number of divorces to the sum of marriages and divorces (%)
Δinv_{t-1}	– the investment rate in physical capital (the share of investments in physical capital in the gross domestic product) (first difference, in %)
ε_t	– error term.

The results of estimates for Poland based on a sample of annual data for the years 1993–2017 are presented below:

$$\Delta GDP_t / GDP_{t-1} = 7.1 + 0.437 inv_{t-1} - 0.136 div_{t-1} - 3.2u2001$$

(5.1) (2.4) (2.0) (2.6)

$$R^2 = 0.410 \quad S_e = 1.4 \quad JB = 0.49 \quad ADF = -3.2$$

This model also has good statistical properties, all variables are statistically significant, and the distribution of random components is normal. The residuals of this equation are stationary (with probability 0.96, ADF test statistics = -3.26).

A similar model has been estimated for 15 EU countries using annual panel data for 1993–2017. The results, based on the fixed effects¹² approach, are:

$$\Delta GDP_{i,t} / GDP_{i,t-1} = 4.3 + 0.620 inv_{i,t-1} - 0.078 div_{i,t-1}$$

(6.0) (5.9) (3.2)

$$R^2 = 0.124 \quad F_{fixedeffects} = 4.9 \quad (pvalue < 0.001)$$

This model also has good statistical properties, i.e., all parameters (including fixed effects) are statistically significant.

The parameter signs of both the model estimated for Poland as well as the one for 15 EU are consistent with the theory (a positive effect of lagged investment and negative for lagged divorce ratio).

The results both for Poland as well as the panel of 15 EU countries confirm the hypothesis about the long-term negative impact of divorces on economic growth.¹³

An increase in the divorce to marriage rate permanently slows down the GDP growth rate. The results for the European Union are stable—similar results have been achieved in other versions of the model (e.g., using the dataset starting from 1964).

¹² Similar results have been obtained by using a random effects model. The results are available from the authors upon request.

¹³ As in the previous studies for Poland (cf. Sztudynger, 2009).

The interpretation of the effects of our main variable, the divorce rate, is as follows: An increase in the divorce rate of 1 percentage point causes a slowdown in economic growth in Poland and 15 EU countries (of approximately 0.14 percentage point and 0.08 percentage points, respectively).

Table 1. Comparison of divorce rate impact on economic growth (1933–2017)

Variable	Poland		EU15		Conclusion
	parameter	t-stud	parameter	t-stud	
Div	-0.14	-2.0	-0.08	3.2	1.7-times stronger effect in Poland

Comparing the estimations presented for Poland and the EU15 countries shows that the divorce-related slowdown in GDP growth in Poland is 1.7-times stronger than in 15 countries of the “old” European Union.¹⁴ It seems that it can be concluded that in Poland there is a stronger reaction of economic growth to divorce. This can be explained by the great importance traditionally attributed to the permanence of marriage in Poland, strongly rooted in Catholicism and other Christian religions.

4. Opponents’ arguments and our responses

Several reservations have been made regarding the hypothesis about the impact of marriage and divorce rates on economic growth.

- (1) “The relationship between marriages, divorces and economic growth is symptomatic—it is an apparent relationship and not a cause-and-effect one.” We believe that the resolution of this dispute may take place through a discussion preceding the estimation of the model. Significant estimates of the parameters at the marriage breakdown coefficient confirm the analysed hypothesis to some extent. They cannot, however, overcome the suspicion that the relationship is only apparent. In our previous research (Sztudynger, 2009) as well as here, the basic argumentation presented is as follows:

- family life is very important for most people;
- marriage is a particularly long-lasting (for many people it is indissoluble) agreement on cooperation and collaboration, and divorce is an extraordinary violation of this agreement; thus, for many family members it is a great failure¹⁵; and, according to Waller-

¹⁴ The approximation of this comparison results from different periods of analysis, different methods of OLS estimation and fixed effects, as well as the possibility of only partial standardisation of variables (i.e. the investment rate, the inflation rate, the ratio of the number of divorces to the sum of marriages and divorces).

¹⁵ “For females, odds of completion were reduced 34% and 73% for those who experienced parental divorce or paternal death, respectively” (Sapharas, Estell, Doran & Waldron, 2016, p. 867).

stein and Blakeslee (1989), time does not fully mitigate the effects of this event;

- a large number of marriage decisions in relation to divorce decisions shows a strong social inclination to establish cooperation not only in families but also in the workplace, i.e., it indicates a high tendency to cooperate (Starosta);
 - the ability and willingness to cooperate (and have trust in other people) stimulate economic growth.
- (2) “The impact of the marriage to divorce rate on economic growth is only apparent.” One can use causality tests, although the possibility of resolving this doubt is limited. Due to the fact that a pre-event can be the cause but cannot be the effect of the following event, our results may indicate that the breakdown of the family, as represented by divorce, may cause an increase in an economic slowdown (regardless of whether the opposite direction exists). The Granger causality test allows us to state with a high probability (the order of 0.98) that marital dissolution (represented by the divorce rate) is the cause of the evolution of economic growth rate (in Poland).¹⁶
- (3) “In fact, there is a reverse relationship: the economy and economic growth have an impact on families, marriages and divorces.” Agreed. A reverse relationship of the influence of the economy on the family also occurs. The divorce rate was dependent on lagged economic growth (negative impact), wage differentiation (positive impact), and the economic level (positive impact).
- (4) As we have already mentioned, due to the fact that in the presented models the family breakdown coefficient is lagged, one can rule out the fact that the analysed models express a relationship opposite to the relationship present (such a danger could occur if there was no lag in the model). However, the possibility of an apparent correlation still exists.
- (5) “Modern enterprises base their development on total availability, which means that young workers can hardly start families, have children, etc.”—Czyżewski.¹⁷ This is the argument-hypothesis regarding a negative impact of employee availability (and economic growth) on the number of marriages.¹⁸ However, the marital dissolution coefficient we use also expresses the divorce rate. In the light of the obtained results, the impact of economic growth on the non-marriage rate is weaker than its impact on reducing the divorce rate. In further studies, we will attempt to introduce two variables; marriage and divorce variables.
- (6) A more general hypothesis of substitutability can be formulated (Work-Family Conflict): the better the employee, the worse he or she is at ful-

¹⁶ The cause in the Granger terms. This test does not exclude the possibility of only apparent correlation.

¹⁷ Czyżewski notes that this phenomenon, marked mainly in the post-1989 period, is often perceived by right-wing oriented people as anti-family capitalism. This issue will be examined in the equation where the divorce rate will depend on economic growth.

¹⁸ The rate of marriage breakdown will then grow (as with the increase in the number of divorces).

filling his or her family roles. We have formulated and confirmed the reverse hypothesis – let us call it the hypothesis of complementarity¹⁹ (or Work-Family Balance): **the more successful an employee is in the workplace, the better he or she is at fulfilling his or her family roles** (Sztudynger, 2009, Appendix 1) **and vice versa**. In fact, substitute and complementary situations overlap. The obtained results allow us to suppose that **the situations of a dynamic economy supporting the family in a complementary manner dominate and vice versa**.

- (7) “Changes in legislation regulating marriage, divorce and separation.” Agreed. The obtained results allow us to conclude that the changes have been so marginal that a study of the influence of the marriage breakdown coefficient on economic growth is possible. Let us add that the interactive variable expressing the introduction of separation in 2000 has proven to be irrelevant.
- (8) Like the arguments presented in point 7, one can observe that the marriage to divorce rate changed due to the demographic situation.
- (9) “After a divorce, women are more likely to take up work and work more efficiently, which contributes to GDP growth.” One of the reasons for this is economic coercion or the desire to preserve the “pre-divorce” standard of living. Workload and household duties are, in this situation, excessive and devastating (Wallerstein & Blakeslee, 1989). It can be assumed that in the short term there will be a positive effect on economic growth (it would be a substitution effect), while in the long term the effects will probably be negative (a complementary effect).

The positive effect is, in this case, a statistical illusion. For example, a woman did not work professionally before the divorce, looking after a pre-school child. After the divorce, the woman takes a job (GDP growth), and the child is sent to kindergarten (also GDP growth). If the child had better care at home than in kindergarten, the second increase in GDP is a statistical illusion because the statistics do not include housework in GDP. However, if housework is transferred to service institutions, then it is included in GDP.

- (10) “After a divorce, an extra flat is needed for one of the ex-spouses, sometimes a second car. Therefore, demand grows, especially for durable goods.” It is true, but it is possible only with an increase in the income of the ex-spouses. Meanwhile, many studies show that a so-called marital premium exists—higher incomes of spouses, especially husbands, in comparison with divorced people.²⁰

It is worth mentioning that a positive influence of the divorce rate on investments was found for Poland, which accelerates economic growth. At the same time, the direct negative impact of the divorce rate on eco-

¹⁹ According to Czyżewski, from a conservative point of view, one could talk about pro-family capitalism in this respect.

²⁰ An overview of such research is found, among others in Stolarska (2013).

conomic growth is ten times greater, and therefore the total impact is negative (Sztaudynger, 2009).

- (11) Many arguments (including points 6, 9 and 10) refer to the divorcing spouses and the consequences that impact them directly. It seems that **indirect** effects are more significant, understood as an increase in the sense of marital and family insecurity in people who are in contact with the divorcing couple. The increase in uncertainty, the fear for the permanence of one's marriage and the fear of making a decision about a marriage negatively affect the integration of all families, causing a drop in quality of life. This, in turn, reduces labour productivity and slows economic growth.
- (12) Due to the fact that the relationship of cooperation is a feedback relationship, the above-mentioned unfavourable phenomena **indirectly** affect entire employee teams in which people from families affected by divorce work or which are managed by them.
- (13) A large number of divorces are characterised by the instability and deterioration of interpersonal relations in all families, and not only those that were directly affected by the divorce (just as high mortality testifies to the poor state of health of the whole society). We assume that a large number of divorces in relation to the number of marriages is a symptom of deteriorating interpersonal relationships in **all** families and workplaces.
- (14) Growiec (e-mail of July 5, 2009) points out that in sociology, family social capital is measured by the frequency of contacts with the family, excluding the spouse. Thus defined family capital is included in the **bonding** capital which is supposed to slow down economic growth (Putnam, 2001; Sabatini, 2006; Growiec & Growiec, 2010).

We, on the other hand, suggest measuring the permanence and quality of family relationships by means of the frequency of marriages in relation to the frequency of divorces. A marriage is the beginning of a new, traditionally understood family. A divorce is not the end of the family, but a manifestation of a very serious crisis within it. That is why **we propose that it should be one of the measures of family social capital**. We assume that an increase in family social capital in the measure we have adopted—the marriage to divorce rate—is characterised by readiness to build lasting ties and cooperation between people (future spouses), as spouses usually do not know each other beforehand, since they often come from different social, national groups, etc., while a divorce is the dissolution of ties and cooperation between the potentially closest people (culturally, emotionally, institutionally, traditionally, religiously), i.e., spouses. The adopted measure thus characterises the **bridging** of family social capital.

- (15) The main conclusion of our considerations is as follows: the interdependence of the family and the economy means that sustainable growth **requires** the protection of the family environment. Co-workers **should**, therefore, support each other in fulfilling family roles. Employers striv-

ing to integrate employees **should not** do so at the expense of their families. All of these **obligations** will be justified by the interdependence of the family and the economy.

In relation to this conclusion, the objection is made that it is of an evaluative nature, and therefore it is not a scientific judgement. However, it should be noted that we use the term **should** in the context of economic consequences for economic growth.²¹ This is, of course, only one among many of the negative dimensions of the influence of an impermanent family on the lives of each of us.²² Acceptance of the proposed approach and the obtained results provide arguments for the traditional family model.²³ According to Dzionek-Kozłowska, “[...] it is impossible to formulate independent recommendations on current problems that are utterly detached from values” (2006, p. 76; cf. also Dzionek-Kozłowska & Matera, 2015, p. 21; Dzionek-Kozłowska, 2018, p. 203).

According to Popper’s rule, theories are scientific only if they are falsifiable. The condition of falsifiability is the formulation of a prediction based on a given theory that, in certain circumstances, something will or will not occur. If we are not able to formulate such predictions, it means that the theory is unfalsifiable (impossible to refute on the basis of empirical tests).

5. Conclusions

An important component of social capital is family ties capital—the so-called family social capital. In the paper, we hypothesise that the breakdown of family social capital (expressed as an increase in the divorce rate—the number of divorces in relation to the number of marriages) slows down economic growth.

In order to verify this hypothesis, we applied two econometric models, estimated for Polish as well as 15 European Union countries (both for the period 1993–2017). These econometric analyses allow us to confirm the formulated research hypothesis. In the model estimated for 15 European Union countries, an increase in the divorce rate of 10 percentage points reduces the rate of economic growth by approx. 0.8 percentage points. In turn, on the basis of the model estimated for Poland, it can be concluded that the same increase in the divorce rate

²¹ This has been verified econometrically. The model can be used for forecasts. These arguments are of importance only to readers who consider the analysed relationships to be cause-and-effect and not only apparent.

²² The recommendations of sociologist Krystyna Slany (2003, pp. 49–50) are similar, as she states that: “Significance **should** be restored to the marriage and family. Reconstruction **should** be carried out by families themselves, the church, neighbourhood groups, the mass media, and not by state subsidies or government programmes [...]. It **should** be supported and its universal values **should** be emphasised. After all, it is the basis of our existence, the foundation of our morality and the foundation of social organisation. The family is the most powerful social capital; its formation is and **should** be the most important type of investment in social capital.”

²³ If we were to justify the thesis that it is necessary to care for the survival and sustainability of nature, the natural environment, because it serves sustainable growth and quality of life, the objection referring to unscientific contexts of worldviews would surely not be formulated.

causes a slowdown in economic growth of approx. 1.4 percentage points. These results are, to a large extent, comparable due to the similar specification of the models and the same time period.²⁴

We received stronger effects of marital dissolution for economic growth in Poland than for 15 European Union countries. These differences can be explained by the greater significance of the family's permanence in Poland, which results from its culture, tradition and the special role of religion.

The confirmation of the hypothesis about a negative impact of marital dissolution on economic growth can also be interpreted as a lack of contradictions between ethical values (the attitude to family and relatives) and economic goals (economic growth) at the micro and macro scale.

The study ignores the most important and the most difficult problem—the responsibility of adults towards children. It can be assumed that in addition to the “current” impact of divorces on working adults, it also has negative effects on children, i.e., the next generation.²⁵ In this case, a divorce could again reduce labour productivity when work is undertaken by people who were affected by divorce as children.²⁶

And it is necessary that not only those who—as they argue—“have the right to life, to happiness and self-realisation” but also victims of this legalised egoism should talk, write, and express opinion on this threat [to the family—J.J.S.] and on their own fate [...]. Children [...], deprived of true love, hurt at the beginning of their lives, should talk about it. (John Paul II, 1987)

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²⁴ Preliminary results of estimates for Poland indicate that the strength of the negative impact of marriage breakdown on economic growth decreases over time (this thesis was put forward by Czyżewski, on June 22, 2009). If a similar phenomenon occurs for the 15 EU countries, then comparisons should concern the same period.

²⁵ The first part of this negative impact consists in reducing the learning outcomes (cf. Sapharas, Estell, Doran & Waldron, 2016). This results in a permanent reduction of human capital, followed by a slowdown in economic growth.

²⁶ The study of such dependence seems possible on the basis of panel data (5–10 years).

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