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IN PRESIDENT, PARLIAMENT AND GOVERNMENT, 2014–2018**»

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## INTRODUCTION

Citizens' trust in state institutions «underpins a successful society, and it is impossible for community to exist without a specific amount of such trust, as stated by Organization for Economic Co-operation and Development (OECD, 2017a: 26). If so, Ukrainian society is seriously challenged by frequently low and turbulent level of trust, including the three major (and, arguably, the most visible) national political institutions: the president, the parliament (Verkhovna Rada) and the government (Cabinet of Ministers). As the dynamics of trust in post-Maidan authority including President Poroshenko (see pic. 3.1 in chapter 3), and the rise of new President Volodymyr Zelens'kyi implied, public's trust in political institutions might simultaneously fall (as with Poroshenko and his team) or increase (as with Zelens'kyi and the new authority). In other words, it may mean that Ukrainian political institutions are sensitive in perturbations in trust level of one another, putting society at risk. At the same time, gaining a simultaneous trust may be beneficial for the state authority.

Provided that, it is necessary to obtain understanding of how exactly public's evaluations of trust in the president, parliament and government are interrelated. For that purpose, it would be **relevant** to analyze trust in Ukrainian political institutions of the last state authority cycle (beginning with Poroshenko's appointment in 2014 and beginning of presidential campaign in early 2019). Firstly, because it could be pre-assumed that the Revolution of Dignity was followed by institutional changes. Secondly, because the new state authority, headed by Zelens'kyi, has been in power only for 1 year as of time of this writing, so it might be rather too early to rely on this data. Technically, in terms of the clear understanding of trust interrelations, though, the following theoretical **problem** could be highlighted: we do not have appropriate and up-to-date statistical estimation of the interrelations between trust in Ukrainian president, parliament and government (despite the earlier arguments about the latent political trust concepts by Marien, 2011, 2016, and implications about generalized trust in Ukrainian political institutions almost a decade ago by Malysh, 2012).

Therefore, the population of Ukraine (denoted shortly as «Ukrainians» in the title of this paper) were considered the **object** of this research, and the interrelations between their trust in president, parliament and government of Ukraine in 2014-2018 was defined as the **issue**. Accordingly, the **aim** of this research was to verify these interrelations. The research process was thus divided into 3 **tasks**:

- 1) to conceptualize the president, the parliament, the government of Ukraine as political institutions;
- 2) to conceptualize and to operationalize Ukrainian population's trust in the president, the parliament, the government of Ukraine;
- 3) to highlight the interrelations between Ukrainian population's trust in the president, the parliament and the government of Ukraine in 2014-2018.

Respectively, three pairs of bivariate interrelations between trust in the three Ukrainian political institutions were covered in this paper: 1) the president and the parliament; 2) the president and the government of Ukraine and 3) the parliament and the government of Ukraine.

In terms of the *theoretical basis*, the study relied on the works of Giddens (1984), Offe (1996; 1999), Miller (2003) and other scholars of social and political institutions for the conceptualization of Ukrainian bodies of authority as political institutions. The conceptual framework of trust in these institutions, though, would be based mainly on the researches of institutional trust like Blind (2006), Norris (2016), publications of OECD (2017a) and the Handbook on Political Trust by Zmerli & Van der Meer (2016a).

Hence, 3 correspondent **hypotheses** were formulated during the research:

- **H1:** *levels of trust in the president and the parliament of Ukraine had positive monotonic relationship;*
- **H2:** *levels of trust in the president and the government of Ukraine had positive monotonic relationship;*
- **H3:** *levels of trust in the parliament and the government of Ukraine had positive monotonic relationship.*

Eventually, the hypotheses would be tested on Ukrainian national sample – using 5 datasets of Kyiv International Institute of Sociology (KIIS) where each represented a specific year in the period of 2014-2018 (KIIS, ZN.UA, 2014; KIIS, 2015, 2016, 2017, 2018). Hence, H1, H2 and H3 were verified through the multiyear Spearman's rank-correlation test (with supplementary contribution of CATREG regression analysis) in IBM SPSS.

Overall, the results of this research might be useful for the scholars of political institutions, as well as for policymakers and members of Ukrainian public. The contribution was made to the understanding of precise institutional interrelations in the last few years and thus, possibly, to the evaluation of institutional risks and possibilities. Accordingly, the research would conclude with implications of the further researches. Nevertheless, apart from the gained theoretical knowledge, from the wider perspective, context this study was aimed at the development of awareness and common social responsibility in terms of creation of strong, sustainable political institutions in Ukraine.

## CHAPTER 1. THEORETICAL BACKGROUND OF INTERRELATIONS BETWEEN TRUST IN POLITICAL INSTITUTIONS

Chapter 1 was dedicated to the theoretical basis of the research, including the research's main theoretical concepts, basic empirical evidence and methodology recommendations – in general, the implications for **further conceptualization** and **measurement** in this research. Or, in other words, recommendations on how to prepare and conduct this research were searched for and highlighted. Therefore, while the tasks 1-2 and 3 were not completed by the end of this chapter, it *served as the first stage of their completion*. In addition, the three questions that partly mirror the research's tasks were formulated to help structure the content of chapter 1:

1. What should be understood by Ukrainian president, parliament and government if they are treated as political institutions?
2. How should trust in Ukrainian president, parliament and government be conceptualized and measured?
3. What hypotheses about the interrelations between trust in these political institutions should be outlined and how should they be verified?

The literature review was thus conducted consistently with these three questions and included the examination of several academic papers in the fields of sociology, political science, political psychology, organizational studies etc., as well as social surveys' publications and policy recommendations of OECD. Hence, **firstly**, implications for the conceptualization of the president, the parliament and the government of Ukraine as political institutions were highlighted (part 1.1). Then, in the **second stage** theoretical basis was found for further conceptualization and operationalization of trust in Ukrainian president, parliament and government. Although, due to the considerable number of approaches and concepts on the topic, the second stage consisted of two steps:

- the most general theoretical ground of the concepts of trust in political institution, including the discussion the possibility of such trust, the

consideration of the variety of its concepts and the overview of the common approaches to their measurement (part 1.2);

- the overview of the definite political trust concepts (part 1.3).

The **third** stage (part 1.4) was dedicated to the interrelations between trust in the three Ukrainian political institutions, as the theoretical basis for their verification (and respective additions to the conceptualization of trust in Ukrainian political institutions) was discussed. Also, the possible empirical preconditions for such interrelations in the Ukrainian context were highlighted. Subsequently, finally, the hypotheses were formulated, concordantly with the literature and Ukrainian context (also part 1.4).

### **1.1. Theoretical basis of political institutions conceptualization**

The concept of a political institution itself was not the issue of this research, but clarification of its meaning was essential to the research. Otherwise, the further conceptualize trust in a political institution and interrelations between trust in political institutions could have been confusing. Nevertheless, mostly, a direct definition of political institutions was not included the academic papers on political trust themselves, but instead president, parliament and government (alongside other bodies of state authority) were categorized or referred to as political institutions (see, for example, Mishler and Rose, 1997; Levi and Stoker, 2000; Marien, 2011). Hence, definitions of a political institution had to be searched for mostly in other social and political science literature (the literature on social and political institutions, to be more precise). At the same time, however, any such definition of a political institution could have been adopted to this research only if it had been consistent with the mentioned categorization from political trust studies. In other words, *bodies of state authority* (namely president, parliament and government) *had to be considered political institutions* in these definitions.

In that regard, though, at least two contrasting approaches the academic papers on social/political institutions were found. According to the *first* perspective,



institutions were approached as repeated social forms, norms and practices (Berger and Luckmann, 1966/1991; Parsons, 1990; North, 1990). Moreover, North (1990) and Fukuyama (2014) distinguished institutions from organizations or bodies of government. From the *second* point of view, by comparison, state bodies could be treated as political institutions (Giddens, 1984; Offe, 1996, 1999; Miller, 2003, 2019; Goodin, Pettit & Pogge, 2007 etc.). Existence of the two perspectives was also confirmed by Miller (2019), who implied that organizations (including political bodies) may and may not be considered institutions.

**1.1.1. Political forms and norms as political institutions.** To begin with the first perspective, as argued by Parsons (1934/1990), institutions may be treated as «concrete forms of relationship between human beings which arise in connection» with activities that are belong to a certain functional category, including the political category, as well as, for example, the economic and religious categories. Respectively, by Parsons's definition (1934/1990), political institutions thus represent political activities. Next, Berger and Luckmann (1966/1991: 72) stated that «a reciprocal typification of habitualized actions by types of actors» could be considered an institution. And although it was implied by Berger and Luckmann (1966/1991) that political order and political roles might be examples of political institutions, the clear definition of political institutions was not provided. Also, Turner (2003: 2) made a common notion, defining social institutions as «population-wide structures and associated cultural (symbolic) systems» that are created and used by humans to adjust to their environment. Hence, Turner (2003: 78) highlighted the institution of polity – «the consolidation and centralization of power in the hands of leaders who possess the capacity» of social activities coordination, distribution of resources and conducting social control.

Consistently with the conclusions of Parsons (1934/1990), Berger and Luckmann (1966/1991), and Turner (2003), according to North's (1990: 3) conceptualization, institutions are «the rules of the game in a society», «humanly devised constraints that shape human interaction», and, furthermore, incentives in social, political and economic types of human exchange are they structured by

institutions. Moreover, though, North (1990) emphasized on the need to make distinction between institutions and organizations. As stated by North (1990: 5), organizations, including political bodies such as political parties or state and city councils, are «groups of individuals bound by some common purpose to achieve objectives». But even though organizations structure human interaction as well, they are themselves the consequences of institutional framework, and thus institutions might be compared to the rules of a game and organizations – to the players (North, 1990). Additionally, Fukuyama (2014), in concordance with North's (1990) ideas, also distinguished between political institutions and political actors, stating that, despite changes of people in authority and laws, institutions – the underlying rules of social organization which influence political order – might remain intact and.

Overall, the works in the first perspective, institutions were either treated as forms and norms, hence «larger» and more abstract macro-categories than, say, president, parliament or government (Parsons, 1934/1990; Berger and Luckmann, 1990), or even directly separated from president, parliament or government as organizations (North, 1990; Fukuyama, 2014). Consequently, the first approach was incompatible with categorization in the papers on political trust (Mishler et al., 1997; Levi et al., 2000; Marien, 2011 etc.) and (at least without adjustments) was thus inapplicable for the conceptualization of political institutions in this research.

**1.1.2. Bodies of state authority as political institutions.** Even though Giddens's (1984) conceptualization of institutions belongs rather to the second point of view on institutions, it may have seemed close to the first approach: the term of institutions represented «practices which have the greatest time-space extension» within societal totalities (17), «the more enduring features of social life» (24). Moreover, practices reproduce structural properties, as well as structural principles – «the most deeply embedded structural properties» (Giddens, 1984: 17). Relevantly to this research, Giddens (1984: 34) also outlined political institutions as one of the classes of institutions, explaining that the «political» element referred to «the ordering of authority relations» in a society. However, Giddens (1984: 246) suggested that the state (a political institution) might consist of the society's

governmental institutions of a certain type, to which, as it might be interpreted from the text, the synonyms «state institutions» and «political institutions» were applied. Therefore, while in Giddens's (1984) implications might not be perfectly clear in terms of alignment of political institutions as practices and political institutions as state organs, in contrast to the first approach, such implications still did not contradict the possibility of treatment of state organs as institutions.

Commonly with Giddens (1984), in Goodin et al. (2007) did not state clearly that president, parliament and government are political institutions in *A Companion to Contemporary Political Philosophy*, but such conclusion might be drawn from the broad approach to political institution conceptualization. According to Goodin et al. (2007), any substantive institutions «that can be affected by those who assume power under the political process» (xvii) could be treated as political. Although, arrangements of government and the parliamentary system were named among political institutions (Goodin et al., 2007, partly referencing Bogdanor, 1987). Olsen (1997: 205) supported this perspective, re-outlining the political institution's definition as «any institution that can be affected by, or can affect, a democratically-elected government and those deriving their authority and power from elected organs», citing an earlier edition of the *Companion to Contemporary Political Philosophy* (Goodin and Pettit, 1993: 2).

Furthermore, in *The Oxford Handbook of Political Institutions* (Rhodes, Binder & Rockman, 2008a) it was implied that bodies of state government could be called institutions (Rhodes, Binder & Rockman, 2008b), including the president Howell (2008), the parliament or legislative branch (Carey, 2008) and the government in terms of executive branch (Rhodes, 2008). At the same time, March and Olsen (2008: 4) defined political institutions as «collections of structures, rules, and standard operating procedures that have a partly autonomous role in political life» for the Handbook.

However, Miller (2003; 2019, partly based on Scott, 2001) and Scott (2001) implied more directly that, organizations, including bodies of government, could be referred to as institutions. Furthermore, Miller (2003), defining institutions as

«structures of conventions and norms that regulate various species of generic joint activity» (243), also clarified that not all institutions are organizations, but all organizations (including governments) are institutions. As argued by Miller (2003), such categorization could be attributed to the necessary involvement of conventions and normative dimension in organizations.

Finally, Miller's (2003; 2019) and Scott's (2001) points were also supported by Offe (1996). Hence, Offe (1996) argued that institution might fail as an organization (and, it could be continued, in terms of the definite actors' performance), but as an institution it would keep its general patterns (in this regard, noticeably, Offe's points were consistent with Fukuyama's, 2014). Moreover, it was implied that parliamentary government, political parties etc. could be institutions (Offe, 1996). One more addition should be made, though: according to Offe's (1999) further studies of political trust, persons, actors who belong to a political institution, generally, act consistently with the institution's norms, representing institution. Respectively, grounding on Offe (1999), public's trust could be expressed not only to the institution (as, say, government), but to the people who hold an office in this institution.

Overall, in contrast to the first approach, the second approach was compatible with the theory and methodology in the research's main literature, while it allowed to treat bodies of Ukrainian state authority as political institutions. Therefore, it was selected for the conceptualization of a political institution, the president, the parliament and the government. More precisely, **firstly**, contributions by Giddens (1984), Miller (2003) and Offe (1996, 1999) would be used directly in the conceptualization of political institutions, because this combination provided all the necessary information and allowed the definition to be comfortably short. **Secondly**, as bodies of government could be treated as political institutions and as they might represent institutional properties (Miller, 2003; Offe, 1996, 1999), definition of the Ukrainian president, parliament and government would rely on The Constitution of Ukraine (1996/2019). Consequently, by these conclusions, the first stage of the

chapter 1 was passed and the contribution was made to the further completion of the research task 1.

## 1.2. General theoretical background of political trust concepts and their measurement

Trust may be tackled from different perspectives and in different disciplines. Tomankova (2019), for example, reviewed trust concepts from political economy, political science, public administration, social capital studies, organizational studies, behavioral economics and economic policy. Although, trust might also be the issue of political psychology (Anderson, 2010), social psychology (Dunn and Schweitzer, 2005) or general psychology and sociology, as suggested by PytlikZillig and Kimbrough (2015, with the examples of Bijlsma-Frankema & Costa, 2005; Frederiksen, 2012; Khodyakov, 2007; Lewis & Weigert, 2012). Yet this research was focused on Ukrainian president, parliament and government, which would be treated as political institutions, according to part 1.1. Therefore, despite the variety of multidisciplinary approaches to trust, this research involved the political aspect of trust, or, more particularly, the trust in Ukrainian political institutions. Respectively, sociopolitical studies were reviewed to find **political trust concepts** – the ones related to trust in political institutions.

The concrete political trust concepts would be reviewed in part 1.3 for the further conceptualization of trust in Ukrainian president, parliament and government. To conduct the appropriate review of the existing concepts, the primary understanding of political trust context had to be established and a few backbone theoretical implications had to be highlighted. So, *firstly*, the question of whether trusting political institutions is possible would be answered in the section 1.2.1, and thus the link between trust and political context was provided. *Secondly*, as it appeared during the literature review, multiple different labels and definitions were used among political trust concepts. Hereby, a consideration of the variety of these concepts was briefly discussed in the section 1.2.2. *Thirdly*, it also appeared that the

measurement of political trust entities in at least some of the studies could have had common methodological background. Reasonably, some of the most common approaches to the measurement of trust in political institutions were described in the section 1.2.3. Overall, grounding on the *Handbook on Political Trust* by Zmerli et al. (2016a) and academic papers of other political trust scholars, general implications for the further conceptualization and operationalization of trust in Ukrainian president, parliament and government (and for the corresponding task 2 completion) would be discussed in part 1.2.

**1.2.1. Links between trust and political institutions.** The papers referenced in this section could be divided, virtually, into two groups. In the *first group* of publications the implications about the possibility of trust in political institutions were suggested (e. g. PytlikZillig et al., 2015; Zmerli & Van der Meer, 2016b; Bouckaert, 2012; OECD, 2017a, 2017b etc.). Next, academic works from the *second group* also contributed to that discussed in terms of whether there trusting a political institution and trusting people who represent these institutions should be distinguished (e. g. Offe, 1999; PytlikZillig et al., 2015; Warren, 2016 etc.).

To begin with **the first group**, PytlikZillig et al. (2015) stated that there was academic consensus about a few trust properties, including the involvement of independent trustor (subject) and trustee (object). Correspondently, Zmerli & Van der Meer (2016b: 4) concluded that political trust «is fundamentally relational», because «it has a subject who trusts and an object that is trusted; we do not argue that person A trusts without reference to a trust object». To support the idea, Zmerli et al. (2016a: 4) also mentioned Hardin's (2000, p. 26) argument that trust is expressed as «A trusts B to do X» where A is the truster, B is the trustee and X is the issue. A common idea was also supported by Bauer (2019) and Bauer and Freitag (2017), but they added that truster's (A) expectations about trustee (B) could change over time. In general, these implications provided the implicit ground for trust to be viewed from a sociopolitical standpoint.

Although, the point that trust might be expressed towards political actors and institutions was supported more explicitly in several other studies: for instance, Levi

et al. (2000: 476) stated that «trust judgment reflects beliefs about the trustworthiness of the other person (or group or institution)». Then, the starting notion of *Handbook on Political Trust* by Zmerli et al. (2016a) included some of political trust's properties, particularly that it involves a subject and an object of trust and that it is defined by a specific set of objects like political institutions and actors. Moreover, according to Norris (2011: 19), who was also referenced by Zmerli et al. (2016a), trust may reflect «rational or affective belief in the benevolent motivation and performance capacity of another party», which included political institutions, government in the context of the paper.

In Bouckaert's (2012: 94), conceptualization, though, trust was defined as «a feature of relationships of individuals, of organisations and of institutions that affects their interactions in a supporting way» based on Coulson's (1998: 31, as cited in Bouckaert, 2012: 94) implication that «trust describes a relationship which can be between two or more individuals, between individuals and an organisation (such as a company or social services department), or between several organisations'». Additionally, in a connection with Coulson's (1998) indications about several possible trust relations, Bouckaert (2012: 94) suggested 3 categories of trust:

- T1: trust of «citizens and organisations in government and the public sector»;
- T2: trust of «government and the public sector in citizens and organisations»;
- T3: trust «within government and the public sector».

Logically, Bouckaert's (2012) T1 corresponds to the issue of this research – Ukrainian political institutions.

OECD (2017a; 2017b) also suggested the definitions of trust with implicit or explicit relation to individual's trust in government and political institutions. For their «Guidelines on Measuring Trust» OECD (2017a: 42) defined trust as «a person's belief that another person or institution will act consistently with their expectations of positive behaviour». According to one more definition by OECD (2017b: 16), trust might be understood as «holding a positive perception about the

actions of an individual or an organization». Seemingly, their conclusions were also rather consistent with Bouckaert's (2012) suggestions, while OECD (2017b) mentioned the existence of various types of trust, including trust in organizations and institutions (institutional trust).

Switching to of **the second group** of publications, Warren (2016), re-tackled the possibility of trust in institutions through the distinction between trusting an institution and trusting people who belong to an institution. Noticeably, this issue was outlined earlier in part 1.1 in terms of the conceptualization of political institutions, and reference were made to the studies by Offe (1996; 1999). Warren (2016: 45) used Offe's (1999: 65-76) approach to argue that the «idea of trusting an institution makes most sense if we understand it as shorthand for trusting a person who holds an office defined by the rules that constitute the institution». Additionally, it was stated that in this case the officeholder might be anonymous other and could be replaced by another anonymous individual (Warren, 2016: 45, based on Offe, 1999: 65-76). Respectively, «the truster knows nothing about the trustee, except that the trustee holds an office within an institution» (Warren, 2016: 45, based on Offe 1999: 65-76). Although, Zmerli et al. (2016b) concluded in their Handbook (seemingly, grounding on Offe, 1999 and Norris, 2016) that both institutions and their incumbent officeholders might be objects of political trust.

One more relevant discussion was outlined by Bradford, Jackson and Hough (2017), who evaluated Hardin's (2013) argument that the idea of trust in institutions has little sense. Regarding this issue, Bradford et al. (2017) relied on a possible solution by PytlikZillig et al. (2015): they argued, referencing Waytz, Epley, & Cacioppo (2010), that, from a psychological perspective, «people have a powerful tendency to anthropomorphize» institutions (PytlikZillig et al., 2015: 12).

*Finally*, two major conclusions from the section 1.2.1 could be named. *Firstly*, trusting a political institution is possible (see PytlikZillig et al., 2015; Zmerli & Van der Meer, 2016b; OECD, 2017a, 2017b etc.). Although, it was a general contextual statement that had to be clarified, and, respectively, it would not be re-discussed in the next sections. *Secondly*, more importantly, the suggestions by Offe (1996; 1999),



Norris (2016) and Zmerli et al. (2016b) would be included in the conceptualization of trust in Ukrainian political institutions to address the double-object of trust in a political institution (trusting its office-holders and the institution as it is).

**1.2.2. Consideration of the variety of political trust concepts.** Academic literature offered several concepts and respective terms, relevant to trust in president, parliament and government (and interrelations between them). The terms of political trust and respective political trust studies were central in this research, as they provided the relevant theoretical foundations for the topic. Although, the concepts labeled as institutional trust or trust in government were also found among the most common concepts that linked trust and political institutions. Additionally, terms of trust variations like mistrust, distrust and scepticism were introduced in the relevant literature (e. g. Mishler et al., 1997; Levi et al., 2000; Cook et al., 2005; Zmerli et al., 2016a).

Furthermore, the set of political trust terms found in the academic papers might have caused confusion, as it was not always clear whether the same or different political trust concepts were represented by the same or different labels. Firstly, for example, while Zmerli et al. (2016b) agreed on primarily using the term «political trust» in the *Handbook on Political Trust*, it was noted that alternative and possibly equivalent concepts exist in the literature: confidence in political institution and trust in government. This notation was also supported by Anderson's argument (2010) that trust in government, confidence in government and political trust might be interchangeable terms. What is more, according to Zmerli et al. (2016b), there is difference between «trust» and «confidence» in English language, but while some surveys use the term «trust», and some contain «confidence» they are highly similar empirically. Blind (2006) also highlighted this issue, stating that sometimes a distinction is made between confidence and trust in academic literature. Yet Blind (2006) chose to use the two concepts synonymously in their work.

*Overall*, the existence relevant terms related to trust in political institutions and the issue of their alignment had to be taken to consideration in the next stages of the literature review.

**1.2.3. Common approaches to the measurement of trust in political institutions.** Despite that numerous approaches of measuring political trust concepts were found in the literature, political trust studies and surveys seemed to have frequently followed common measurement patterns (consistently with Marien, 2016). Moreover, many studies use data from national or international surveys (e. g. Marien, 2011, 2016; Malyshev, 2012; Torcal, 2016; Mattes and Moreno, 2017), which, once again, use common patterns.

According to Marien (2016: 90), mostly «trust research uses survey questions to measure political trust», and one of the most common measurement instruments is the «*trust-in-government*» questions. Marien (2016) argued that this type of questions was developed by Stokes (1962) and appeared originally in American National Election Studies (NES) in 1960s, though it is still involved in NES surveys. Also, as stated by Marien (2016), Stokes's (1962) concept was adopted by other researchers, including Miller (1974a), which, in its turn, became a base for several other works on political trust.

Marien (2016), however, evaluated different types of scales and continued that political trust scales with questions about respondent's trust in political institutions had been assessed cross-national comparability with different datasets, response categories and methods. While scales might involve 3, 4 (possibly, stemming from Stokes, 1962; Miller, 1974a etc.), 5, 7, 10, 11 (or other number of) points, Marien (2016) implied that 11-point scales are more practical, as they allow more accurate cross-national research on political trust in the European context.

All in all, several surveys like World Value Survey (WVS), European Social Survey (ESS), Global Social Survey (GSS), Gallup polls and Eurobarometer have been using trust-in questions about political institutions (WVS World Values Survey, n. d.; ESS ERIC, n. d.a; Gallup, n. d.; European Commission and European Parliament, Brussels, 2019; GSS Data Explorer, n. d.). Relevantly, an extensive summary of measurements of trust in government was compiled by Zhao & Hu (2015). Moreover, in *Guidelines on Measuring Trust* OECD (2017a) also collected examples of trust-in questions from various national and international surveys, as

well as suggested a blank minimal module (questionnaire) for a trust research. Some of the examples were included below.

ESS uses a 11-point scale (0 = «no trust at all»; 10 = «complete trust») to estimate the level of trust in institutions (ESS ERIC, n. d.a). To add, OECD (2017a) as well recommended using a 11-point scale to measure how much respondents trust an institution (0 = «not at all», 10 = «completely»).

However, a 3-point scale is used in GSS, as respondents could highlight how much confidence they had in the people running institutions in their country (GSS Data Explorer, n. d.):

1. A great deal of confidence
2. Only some confidence
3. Hardly any confidence

In a common way, Gallup Polls (Gallup, n. d.) involve a 4-point scale to measure how much confidence respondents have in American institutions:

1. A great deal of confidence
2. Quite a lot of confidence
3. Some confidence
4. Very little confidence

Consistently, (WVS World Values Survey, n. d.) also used a common 4-point scale to highlight respondent's confidence in institutions in their society:

1. A great deal of confidence
2. Quite a lot of confidence
3. Not very much confidence
4. None confidence at all

In Eurobarometer (European Commission and European Parliament, Brussels, 2019), though, the scale is neither 11-point, nor 3-4-point, but dichotomous: the respondents express that they either tend to trust or tend not to trust specific institutions.

In Ukrainian surveys, however, a 5-point scale of trust is common. For instance, such scale is used regularly by Kyiv International Institute of Sociology

(KIIS) to estimate the extent to which respondents trust or distrust various institutions (KIIS, 2015; 2016; 2017; 2018):

1. Fully trust
2. Rather trust
3. Difficult to say
4. Rather distrust
5. Fully distrust

A common scale, additionally, is used by Razumkov Centre (2020). Its benefit over the 4-point scales might be the medium choice where respondent neither trusts, nor distrusts an institution, which is consistent with advice of Cook and Gronke (2005). Yet there were occasions when a larger scale was used. For example, KIIS's survey for ZN.UA (KIIS, ZN.UA, 2014) involved a 10-point scale (1 = «do not trust at all»; 10 = «fully trust»).

The first and the most general conclusion from this section was that the following: the mentioned trust scales in national and international surveys itself implied that trust could be self-reported by the respondents. Evidently, in this study the national survey of Ukrainian had to be used as empirical base (particularly the survey conducted through face-to-face interviews).

Then, some of the common approaches to measurement of political trust concepts were described in this section for the consideration. However, this study, as would be discussed in chapter 2, relied on 5 KIIS datasets. Most of them involved the 5-point scale described above (KIIS, 2015; 2016; 2017; 2018). On one hand, it could be argued that the available data constrained the measurement choice and data analysis procedures. On the other hand, the ordinal 5-point scale seemed to be comparable and generally consistent with the scales used commonly around the world (Marien, 2016). Beneficially, a mid-point in the scale was also present in the 5-point scale (KIIS, 2015, 2016, 2017, 2018), consistently with the recommendations by Cook et al. (2005). Although, as an exception, the 2014's dataset (KIIS, ZN.UA, 2014) used the 11-point scale presented above. It would be later recoded into the 5-point scale (see chapter 2).

To summarize, part 1.2 was an introduction to the context of trust in political institutions, thus it was the backbone for the conceptualization and operationalization process, contributing to the task 2 fulfillment. Then, four main conclusions could be derived for the next stages of the research. **Firstly**, in the conceptualization trust in a political institution would be treated simultaneously as trust in the institution itself and trust in its officeholder, as discussed by Offe (1996, 1999), Norris (2016) and Zmerli et al. (2016b). **Secondly**, several labels and definitions of political trust concepts exist, including political trust, institutional trust and trust in government. Hence, they would need to be reviewed in part 1.3, and the most suitable for them would be integrated into the conceptualization and operationalization. Thirdly, national survey of Ukrainian population would be used as the data source for trust measurement and the verification of trust interrelations. **Fourthly**, KIIS's (2015, 2016, 2017, 2018) 5-point ordinal trust scale would be used for the operationalization of trust in Ukrainian president, parliament and government, whereas the 11-point scale from 2014's dataset (KIIS, ZN.UA, 2014) would be recoded into 5-point format,

### **1.3. Common concepts of trust in political institutions**

While the general context of political trust studies had been established, in part 1.3 the switch was made to overview of the concrete concepts of trust in political institutions. Therefore, by the end of this part the *definite theoretical foundations* for the conceptualization and operationalization of trust in Ukrainian political institutions would be selected as the next step to the fulfillment of task 2 and the end of the chapter's 1 second stage. In other words, the question of how trust in Ukrainian president, parliament and government should be conceptualized and measured? (as outlined in the chapter's introduction) would be answered in part 1.3.

As concluded in part 1.2, there were multiple existing political trust concepts, which had to be considered for the conceptualization and operationalization. Namely, concepts under three labels had to be reviewed:

- political trust (section 1.3.1)
- institutional trust (section 1.3.2)
- trust in government (section 1.3.3).

Although, it was also highlighted earlier that various trust *variations* like mistrust, distrust, cynicism and skepticism exist (see Mishler et al., 1997; Levi et al., 2000; Cook et al., 2005; Zmerli et al., 2016a), so these derivatives of trust would be examined in section 1.3.4.

**1.3.1. Political trust.** It was mentioned earlier that, according to as stated by Marien (2016), one of the original concepts of trust in political institutions, namely the *political trust*, had been suggested by Stokes (1962). Stokes (1962: 64, as cited in Miller, 1974a: 952) approached political trust as «basic evaluative or affective orientation towards the government». Concordantly, Miller (1974a) adopted Stokes's (1962) ideas and estimated the level of Americans' political trust (through the concept of political cynicism) using 5 questions on:

- 1) how often the government did what was right;
- 2) whether the government served only a few interests or benefit of all Americans;
- 3) whether a lot of money from taxes was wasted by the government;
- 4) whether the government knew what they were doing;
- 5) how many people in the government were crooked.

Hence, in Miller's (1974a) study the items were measured by the means of 5-point Guttman scales (0 = the least cynical; 5 = the most cynical), consistently with Stokes's (1962) approaches. Later Hetherington (1999: 791) synthesized the definition of trust in government by Stokes (1962) and implications by Miller (1974b) to define political trust as a «basic evaluative orientation towards the government founded on how well the government is operating according to people's normative expectations».

However, several newer conceptualizations have been developed since Stokes's (1962) and Miller's (1974a; 1974b) publications. For instance, Blind (2006: 3-4) defined named political trust as the one which «happens when citizens appraise the government and its institutions, policymaking in general and/or the individual political leaders as promise-keeping, efficient, fair and honest». Also, Blind (2006) referenced Miller and Listhaug's (1990) definition of trust in government (see section 1.3.3) as an alternative definition of political trust.

*Handbook on Political Trust* by Zmerli et al. (2016a) suggested an extensive framework of political trust, grounded on previous studies and the implications by the contributing authors. Zmerli et al. (2016b) used Norris's (2016) approach to conceptualizing political trust (which, according to the authors, is widely used) as the base for the handbook. Therefore, Norris (2016) suggested that political trust is «the general belief in the performance capacity of political institutions and/or belief in the benevolent motivation and performance capacity of office-holders». Nevertheless, confidence in regime institutions and approval of their office-holders were considered the two elements of political trust (Norris, 2016). Although, Zmerli et al. (2016b) also noted some of political trust's properties, particularly that it involves a subject and an object of trust and that there is a specific set of objects. Therefore, in the handbook the set was limited to 2 categories (Zmerli et al., 2016b: 4):

- 1) «the core institutions of liberal democracy» (parliament, government, justice system, civil service, police and military);
- 2) «incumbent political office-holders» (party leaders, legislators and public officials).

Hakhverdian and Mayne (2012), though, constructed another definition of political trust with a reference to the papers by Newton (1999) and Levi et al. (2000), suggesting that political trust «refers to the faith that citizens place in political actors and institutions not to act in ways that will do them harm» (3).

OECD (2013) also provided a notion about political trust, associating it with citizens' appraisal of government and its institutions (which might reflect the

definition by Blind, 2006). However, OECD's publications (e. g., 2017a, 2017b, 2019) regularly use alternative terms, including institutional trust and trust in government, alongside political trust.

**1.3.2. Institutional trust.** Returning to Offe's (1999) conceptualization, trusting an institution might mean trusting a person who is the office-holder in this institution. Additionally, this person operates by the rules of this institution and may be anonymous towards the truster (Offe, 1999).

One of the other popular institutional trust definitions, though, was provided by Marien (2011: 16): institutional trust was treated as «the expectation that political institutions operate according to fair rules even in the absence of constant scrutiny» (noticeably, this definition is close to Miller & Listhaug's (1990) definition of trust in government, see section 1.3.3). Marien (2011), though, approached institutional trust as a construct of general trust in state institutions and not in a single institution. Therefore, their implications were discussed in part 1.4, as it involved the topic of interrelations between trust in institutions.

Williamson (1993), discussing institutional environment, distinguished 6 categories of institutional attributes and corresponding types of institutional trust, including the pair of politics and political trust. Additionally, Cook and Santana (2017), re-approaching Williamson's (1993) implications, and suggested that trust in political institutions could be treated as one of the categories of institutional trust. However, a general implication for this research was that Williamson (1993) did not use political trust and institutional trust as synonyms/alternatives, rather suggesting political trust as a category of institutional trust (as confirmed by Cook et al., 2017). Still, implicitly, according to Williamson's conceptualization (1993), trust could be expressed towards political institutions, which supported the line of this research.

Mattes et al. (2017: 367) argued that institutional trust is «the vertical bond of confidence that citizens place in the organizations that make, adjudicate, and enforce the rules that govern society». Grounding on Bianco (1994), Bratton, Mattes and Gyimah-Boadi (2016) and Gamson (1968) they also added that trust serves as a lubricant, allowing democratic governments not to «obtain constant mandates or



resort to coercion to make, implement, and adjudicate their decisions» (Mattes and et al., 2017: 367). As Mattes et al. (2017) studied institutional trust in developing countries of Sub-Saharan Africa and Latin America, World Value Survey (waves 4, 5, 6), Latinobarometro and Afrobarometer were selected as data sources. Hence, trust variables represented the amount of confidence in several organizations (including political) and were measured on a 4-point scale.

You (2017: 474) argued that institutional trust (trust in institutions) refers to «confidence not only in the integrity and fairness but also in the competence of institutions». Additionally, You (2017) adopted implications by Rothstein and Stolle (2008) that partisan institutions (parliament, government, political parties, civil service) could be distinguished among the types of institutions in the context of institutional trust.

Finally, OECD (2017c) also engaged the term of institutional trust (also named systemic trust), classifying it as the one «in the realm of public and political institutions». According to the OECD's (2017c: 18) conceptualization, systemic or institutional trust «focuses on the interaction between government and citizens and within government». Moreover, OECD (2017c) supplied their definition using Blind's (2006) approach to political trust.

**1.3.3. Trust in government.** The literature review of the term «trust in government» highlighted that the term might be used as an *alternative to other political trust concepts* or there might be *no clear distinction between them*. This conclusion, though, is consistent with Anderson (2010: 65)'s notation that trust in government «is often referred to as confidence in government or political trust».

For example, Miller (1974a), Citrin (1974), Citrin et al. (1986) seemingly used terms of trust in government as an alternative to political trust. Moreover, Miller & Listhaug (1990: 358) used the term «trust in government», but adopted the definition of political trust from Miller (1974a: 952, based on Stokes, 1962: 64), stating that trust in government «reflects evaluations of whether or not political authorities and institutions are performing in accordance with the normative expectations held by the public». Miller et al. (1990: 358), though, suggested one more own definition

(also stating that trust in government was synonymous to political confidence and support) «a summary judgement that the system is responsive and will do what is right even in the absence of constant scrutiny».

Additionally, OECD (2013, 2017a, 2017b, 2019) also engaged a variety of political trust terms alongside trust in government in their publications. At the same time, though, OECD (2013) argued, referencing Easton (1965) that trust in government represents confidence that government's actions are right and fair. Nevertheless, OECD (2013: 21) also made the notion, grounding on Bouckaert and van de Walle (2003), that the trust in government depends on citizens' «interpretation of what is right and fair and what is unfair» and «perceived actual functioning of government». This thesis was also supplied by the conclusion that citizens might have different criteria for the evaluation of government, and «what is considered right and fair by one individual may not be considered so by another» (OECD, 2013: 21).

However, trust in government was approached to as a concept with a *separate definition* in some of the academic papers. Hence, Zhao & Hu (2015) reviewed the works several scholars, including Anderson (2010), Miller and Listhaug (1998), Hetherington (1998) and Thomas (1998), as well as the measurement approaches by Tolbert and Mossberger (2006), Cooper, Gibbs, and Kathleen (2008), Kim (2010) and Maxwell (2010). Although, Zhao et al. (2015: 2-3) summarized the conceptualization by Thomas (1998) and selected it for their research: «public trust in government can be assessed by the extent to which citizens have confidence in the government to operate in the best interests of society».

Yet, according to one more empirical-based approach by Tomankova (2019: 169), who studied several previous conceptualizations, including OECD's (2013; 2017b), trust in government is «the willingness to bear material and ideological costs, immediate or expected, as the result of compliance with government action». It should be noted, though, that Tomankova's (2019) paper was aimed to create an empirically aligned conceptualization of trust in government and did not engage creating or adopting a scale for its measurement.

**1.3.4. Trust, mistrust, distrust, cynicism and skepticism.** Several types of trust, its levels, mirroring entities and counterparts were suggested in the literature. Mishler et al. (1997) conducted a research of trust in civil and political institutions in post-communist countries (including Ukraine), using a 7-point scale for level of trust. The scale, however, was divided into 3 categories (Mishler et al., 1997):

- score of 1-2 = active distrust in the institution;
- score of 3-5 = scepticism in the institution;
- score of 6-7 = active trust in the institution.

And although Mishler et al. (1997) did not provide definitions for trust, skepticism and distrust, each of the 3 categories was implicitly suggested to be a certain level of an ordinal trust variable. In a later research of institutional trust in Sub-Saharan Africa and Latin America Mattes et al. (2017) adopted the idea of 3-category division of Mishler et al. (1997) as a base (although, Mattes et al. used a 4-point scale), but classified respondents who had absolute trust as «blind trusters» and the ones who had no trust at all as «cynics» (369).

Levi et al. (2000) conducted a survey-based research on the concept of political trust and trustworthiness, which also included the overview of trust/distrust topic in the context. Therefore, according to Levi et al. (2000: 476), trust could be conceptualized in a graded way where «one trusts or distrusts to a degree», which is consistent with Mishler et al. (1997) conclusions. On the other hand, Levi et al. (2000) argued that trust might also be treated as a dichotomous variable (either trust, or distrust). Additionally, it was concluded that «one neither trusts nor distrusts another» (Levi et al., 2000: 476), which also seems to resemble Mishler et al.'s (1997) category of scepticism.

Cook et al. (2005) re-examined (dis)trust in government, based on Mishler et al. (1997). Correspondently to Mishler et al. (1997) (as well as to Levi et al., 2000, respectively), Cook et al. (2005) approached the trust variable from a gradual viewpoint. They also argued that low trust in government expressed skepticism – «an unwillingness to presume that political authorities should be given the benefit of the doubt» – and not distrust (Cook et al., 2005: 785). Hence, it was argued about

the need to provide a medium point of neither trust, nor distrust in the government (Cook et al., 2005). In addition, Cook et al. (2005) operated with terms of active trust and active distrust to «allow respondents to express the expectation that government will do what is wrong» (786). Respectively, Cook et al. (2005) divided their scale of trust in government into 3 levels like Mishler et al. (1997), although the switch was made to a 11-point scale where respondents could put themselves on a point between 0 and 10:

- 0 = very strong distrust in the government;
- 5 = neither trust, nor distrust the government;
- 10 = very strong trust in the government.

Additionally, Zmerli et al. (2016a) distinguished 3 counterparts of political trust, based on Cook et al. (2005):

- 1) political mistrust (absence of trust);
- 2) political distrust (opposite of trust);
- 3) political scepticism (withholding one's judgement).

Overall, in part 1.3 main theoretical basis for further conceptualization and measurement of trust in Ukrainian president, parliament and government were suggested. In terms of implications for *conceptualization*, firstly, it was chosen to use the term «**trust in a political institution**» as the category for trust in Ukrainian president, trust in parliament and trust in government, instead of the reviewed labels: political trust, institutional trust or trust in government. This was reasoned by definite drawbacks of each of the three terms. Hence, the label «political trust» articulates the political character of trust, but not the topic political institutions, which are in the focus of the research. The term «institutional trust», though, might represent not only trust in political institutions, but a larger category which refers political institutions alongside other types of institutions (as was highlighted, for instance, by Williamson, 1993), which also differed from the research scope. As for «trust in government», the term might be confusing as it may be understood as trust in the system/institutions of state authority in general or exclusively to the execute

authority. Finally, the label «trust in a political institution» was constructed as a compromise between «political trust» and «institutional trust» with correspondence to the study's focus.

Secondly, concepts by Offe (1999), Blind (2006), Norris (2016) and OECD, (2017a) were selected as the *basis for the definition* of trust in a political institution. Such choice was made as:

- 1) these concepts allowed to encapsulate trust in Ukrainian president, parliament and government;
- 2) they were compatible with each other;
- 3) they included general properties of trust that realistically corresponded to Ukrainian context and with existing empirical base (in other words, they were simple and generalized enough);
- 4) additionally, Norris's (2016) definition was used as the base for the *Handbook on Political Trust* by Zmerli et al. (2016b), which implied on its relevance.

To clarify the 3<sup>rd</sup> point, as stated by OECD (2017c: 16) trust might be «a subjective phenomenon, based as much on interpretation or perception as on facts». Consequently, it is unknown whether a respondent, when they are asked directly to evaluate whether they trust in an institution on a simple scale, thinks about definite issues like, for example, the institution's responsiveness (Miller et al., 1990), keeping of promises (Blind, 2006) or whether the institution serves for the interests of society (Zhao et al., 2015, based on Thomas, 1998). And although the approaches by Norris (2016) and OECD (2017a) also included specific issues, they suggested general theoretical ground for conceptualization, which could be aligned with the operationalization (namely measurement limitations due to the specifics of the research's datasets).

Thirdly, however, the uncertainty about a respondent's subjective evaluation does not necessarily mean that the suggested specific issues should be ignored. Provided that, the issues, outlined by Miller et al. (1990), Blind (2006), Zhao et al., 2015 (based on Thomas, 1998), Hakhverdian et al. (2012, based on Newton, 1999,

Levi et al., 2000) and Norris (2016) were considered for inclusion in the conceptualization in the list of **possible properties** of trust in a political institution. These properties, then, might not be what the exact respondent tackles while evaluating their trust, but it is possible and should be verified on more complex scales in further studies.

Finally, the research datasets included 5-point ordinal scales for trust-questions were compatible with was Mishler et al.'s (1997) and Levi et al.'s (2000) approaches, it was decided to divide trust into *3 levels* and adopt the concepts of active trust, skepticism and active distrust from Mishler et al. (1997). Nevertheless, the adjective «active», suggested by Mishler et al. (1997) could possibly be understood as the one which involves visible favorable actions of «active trusters» towards the trustee (like voting for the trustee, as implied by Hooghe2017, based on Citrin, 1974). As this research was focused on Ukrainians' trust evaluation, and not political behavior, Mishler et al.'s (1997) «active (dis)trust» was renamed into «actual (dis)trust».

Switching to the implications for operationalization, though, as was discussed earlier, the measurement of variables was in-built in the research datasets. Hence, they literature review in this part only re-confirmed the recommendation to use at least-ordinal type of trust measurement.

#### **1.4. Theoretical foundations of interrelations between trust in political institutions**

Part 1.3 was dedicated to the theoretical basis of trust interrelations verification. Therefore, in this part, *firstly*, the general theoretical and methodological implications for the interrelations between trust in political institutions were overviewed. *Secondly*, the link between the theory and Ukrainian political context would be made. Commonly with the previous parts of this chapter, in part 1.4 the contribution would be made to the further conceptualization and operationalization of the research's main concepts (tasks 1-2). Furthermore, the

recommendations for the research's methodological framework, hypotheses verification and completion of task 3 would be provided.

**1.4.1. General implications about interrelations between trust in political institutions.** The focus of this research was the interrelationships between trust in three Ukrainian political institutions: the president, the parliament and the government of Ukraine. In other words, it was asked whether each of the three political institutions was associated with each of the other two institutions. At the same time, most of the examined literature did not conduct, say, correlation analysis between single trust-variables where each represented a definite institution. Yet some of the studies still provided evidence for the interrelations between single-trust concepts.

To begin with, as argued by Norris (2016: 24), «empirical studies suggest that citizens hardly distinguish between political institutions themselves and the political actors in these institutions». Marien (2016: 96) supported this thesis, stating that in newer democracies (to which Ukraine might belong, arguably) «citizens are distrustful of all institutions» and «hardly differentiate» between their types. The earlier research by Marien (2011), though, included a theoretical examination and factor analysis. While implications by Fisher, van Heerde and Tucker (2010) that «citizens use different criteria to evaluate the trustworthiness of different institutions» Marien (2011: 6) were considered, Marien (2011) also suggested, grounding on Almond & Verba (1963), that political institutions belong to a political system with a specific political culture. Respectively, it was concluded, based on arguments by Hooghe (2011), that «citizens' judgements of the performance of various political institutions are strongly related to each other» Marien (2011: 17). Then, Marien (2011) continued the study's line, suggesting the existence of a single underlying construction – the attitude, representing trust in political institutions, which is connected to the political culture of the one. This construction, according to Marien (2011) influences citizens' judgment about the trustworthiness of institutions.

Hence, Marien (2011) conducted a cross-national confirmatory factor analysis (CFA), based on ESS 2008 data (ESS ERIC, n. d.b), so, correspondently, trust variables were measured on 11-point scale. A model with 5 trust-variables was constructed to verify institutional trust (latent variable), and following standardized factor loadings were successfully achieved:

- 1) trust in parliament – 0.895;
- 2) trust in politicians – 0.842;
- 3) trust in political parties – 0.803;
- 4) trust in the legal system – 0.735;
- 5) trust in police – 0.615.

Later Marien (2016) re-used the model on ESS 2012 (ESS ERIC, n. d.c) cross-national data, and the construct of institutional trust was once again verified, implying on its reliability. A common factor analysis by Mishler et al. (1997) also confirmed a political trust variable. The findings were once again confirmed by Torcal (2016), who concluded, referencing Marien (2011; 2016) that there is high correlation between trust in various political institutions. Nevertheless, results of the research of trust in various institutions in the *Ukrainian context* by Malysh (2012) were also consistent with findings by Mishler et al. (1997), Marien (2011; 2016) and Torcal (2016). 5 institutions, including Ukrainian president, government and parliament, belonged to the factor of trust in state authority institutions (Malysh, 2012):

- 1) president – 0.874;
- 2) government – 0.889;
- 3) prime-minister – 0.882;
- 4) head of parliament – 0.839;
- 5) parliament – 0.807.

President, government and parliament, visibly, had high factor loadings (0.8+), and, additionally, the 5 items showed high consistency of Cronbach's  $\alpha = 0.96$  (Malysh, 2012).



Logically, if the items of trust in political institutions were correlated with each other in a factor model (Marien, 2011, 2016; Malysh, 2012; Torcal, 2016), they had to correlate with one another in the pairs of bivariate association. Accordingly, there was theoretical and empirical evidence for the interrelatedness of Ukrainian population's trust in the president, parliament and government. In fact, Malysh's (2012) research highlighted factor-interrelations directly in the Ukrainian context, and, possibly, the question might be asked then: was it necessary to study interrelations of trust in 2014-2018 at all? In this regard, two points had to be addressed.

Firstly, Malysh's (2012) research was conducted about 8 years ago (at the time of this paper's writing, the year was 2020) and focused on Ukrainian institutions of that time. Although, it could be pre-assumed that there were substantial changes in the political context of Ukraine after the Revolution of Dignity, during the first post-Maidan authority, the presidential cadency of Petro Poroshenko etc. Respectively, it would be relevant to re-approach the state of trust in Ukrainian political institutions. Moreover, the re-rackling of trust interrelations could contribute to the further meta-studies of trust in Ukrainian political institutions in the larger time-context (e. g. to compare interrelations in 2018 and 2012).

Secondly, clarification should be made in terms of bivariate interrelations and latent political trust concepts. Marien (2011; 2016) assumed the underlying construct of political trust which influences trust in concrete political institutions, and, from this point of view, levels of trust in political institutions are correlated due to the common factor. On the other hand, the following scenario could be imagined: when the national parliament votes for a bill that is found harmful by some of the citizens, they lose trust not only to the parliament, but to the president, whose party had the majority in the parliament. To elaborate, in this scenario the change of trust in one institution is followed by the change of trust in the other institution. Yet it could also be imagined that citizens might not only have the direct trust in each of the institutions, but the latent concept of general trust in the state authority, as suggested by Marien (2011; 2016). And/or, as argued by Norris (2016), some of the public may

not differentiate the bodies of government much. Then, the imaginary scenario could also be extended: the decrease of trust in definite institution could cause the decrease of trust in the overall trust in state authority as such (once again the latent concept by Marien, 2011; 2016).

Overall, various combinations of relationships between trust in political institutions could be assumed. Moreover, technically, the fact that the levels of trust are associated does not necessarily mean that one variable is the factor of the other. In the scenario above, for instance, it was not the trust in parliament itself that decreased the trust in president, but the actions that damaged the public's trust in parliament also lead to the decrease of trust in president. Provided that, clearer understanding of relationships' paths and causality for levels of trust in political institutions and possible underlying factors could be obtained in the further studies. However, this research was not aimed at proving that trust in one institution influences another or at confirmation of the underlying factors. Instead the contribution would be made to the understanding of how levels of trust in Ukrainian political institutions are associated with one another individually, hence rather to the *prediction of one institution's level of trust by the other's level of trust*, but not to the proof of causality (which, on the other hand, is not rejected by this study).

Yet this section also provided *methodological implications* for trust interrelations' verification. Factor analysis was used by Mishler et al. (1997), Marien (2011) and Malysh (2012), which would imply on using r-correlation for the verification of the linear relationship/correlation between trust variables in this research. However, such data analysis approaches are not applicable to the 5-point ordinal scale. Although, as discussed in chapter 2, it is possible to use Spearman's rank correlation test if it is agreed to switch from the format of linear relationship verification to the verification of monotonic relationship. The monotonic relationship still allows to conclude that one variable increases in value when the other variable does so, and thus it was found to be an adequate solution. Additionally, less common methods and less conventional like CATREG could be used for achieving more information about the relationship.

**1.4.3. Ukrainian context of the interrelations between trust in political institutions and hypotheses formulation.** Ukrainian political context might provide several empirical preconditions to support the theoretical and empirical implications, outlined above. For example, *firstly*, the findings in the study by Malysh (2012) could once again be referred to as an evidence of interrelation between trust in Ukrainian political institutions in the past.

*Secondly*, it is common for the party and the political allies of the incumbent Ukrainian president to gain seats in the parliament and, possibly, to form majority. For example, the Party of Regions, which backed President Viktor Yanukovich, was the largest faction in the Verkhovna Rada of Ukraine of the 7<sup>th</sup> convocation, gaining more than 200 seats out of 450 (Verkhovna Rada of Ukraine, 2013). Then, after Petro Poroshenko was elected the president of Ukraine in May 2014, Petro Poroshenko Bloc also became the largest parliamentary faction with about 150 members (Verkhovna Rada of Ukraine, 2015) in the 8<sup>th</sup> Verkhovna Rada (elected in October 2014). Finally, Volodymyr Zelen'skyi won the presidential election in April 2019, defeating Poroshenko in the 2<sup>nd</sup> round with approximately 73% of the votes (Central Election Committee, 2019). Subsequently, in June 2019 his party – Servant of the People – gained about 250 seats (Verkhovna Rada of Ukraine, 2019) in the 9<sup>th</sup> Verkhovna Rada and formed monomajority. In general, all three cases might not only seem consistent with the notions of Citrin (1974) and Hooghe (2017) about the connection of trust and voting behavior. They also imply on the association between the public's perception of the president and the parliament. Additionally, the involvement of Poroshenko's surname in the name of Petro Poroshenko Bloc may also contribute to such associations.

*Thirdly*, a common association between the parliament/the government and the president/the government might exist, as both the president and the parliament of Ukraine have role in the appointment of the Cabinet (The Constitution of Ukraine (1996/2019). Reasonably, even more interactions between Ukrainian political institutions could be used as pre-assumptions of the association of these political institutions with one another.

Finally, provided the theoretical evidence and empirical preconditions outlined above, the first three hypotheses, which covered the interrelations between levels of trust in Ukrainian institutions, were formulated:

- **H1:** *levels of trust in the president and the parliament of Ukraine had positive monotonic relationship;*
- **H2:** *levels of trust in the president and the government of Ukraine had positive monotonic relationship;*
- **H3:** *levels of trust in the parliament and the government of Ukraine had positive monotonic relationship.*

To conclude, in chapter 1 general theoretical foundations of this research's framework were outlined, grounding on the literature review. Consequently, the contribution was made to the finalization of tasks 1-2 (in terms of conceptualization and operationalization of the research's main items) and task 3 (in terms of hypotheses verification) in chapter 2. Also, basic implications for the research methodology were provided, thus supplying the process of task 3 completion in the further chapters (in terms of the verification of hypotheses and data analysis). **Firstly**, implications of Giddens (1984), Offe (1996; 1999) and Miller (2003) were adopted for the conceptualization political institutions and, accordingly, Ukrainian political institutions – the president, the parliament and the government. The conceptual suggestions of these authors would be applied as they allowed to treat Ukrainian bodies of state authority as political institutions, were compatible with each other and could be transformed into a single short definition.

**Secondly**, it was argued that the measurement was somewhat limited by the available empirical base, but, nevertheless, trust in Ukrainian political institutions would be measured using 5-point ordinal scale (KIIS, ZN.UA, 2014; KIIS, 2015, 2016, 2017, 2018). Yet such measurement seemed to be in-line with the scales used internationally in trust studies.

**Thirdly**, while several possible conceptualizations and definitions were studied, it was decided to construct and use the term «*trust in a political institution*»

as the root-category for further conceptualization. This label seemed to correspond better to the research's focus than its alternatives (political trust, institutional trust and trust in government), while they might have caused misunderstanding of the study's context and scope. Political trust concepts by Offe (1999), Blind (2006), Norris (2016) and OECD (2017a) were selected as a base for definition and conceptualization, while they corresponded to the context and available resources of this research, as well as they were compatible with each other. Additions to the conceptualization were also adopted from Miller et al. (1990), Blind (2006), Zhao et al., 2015 (based on Thomas, 1998), Hakhverdian et al. (2012, based on Newton, 1999, Levi et al., 2000) and Norris (2016). Moreover, it was decided to rely on Mishler et al.'s (1997) and Levi et al.'s (2000) suggestion of dividing trust into three states.

**Fourthly**, it was clarified that, while several variations of relationships, factors and causality models may exist in terms of the studies interrelations, this research covered the bivariate association of trust in each institution to the other institutions. Yet the emphasize was made not on the proof of causality, the existence of latent constructions, but on the prediction trust in one institution by another and highlighting the potential of interrelations in each pair of the three institutions. Also, it was recommended to use data analysis methods that would be as close to the format of r-correlation/linear regression as possible (consistently, for example, with Mishler et al., 1997; Marien, 2011 and Malysh, 2012), while the ordinal scale would not be compatible with the mentioned methods from the literature. Respectively, it was recommended to switch to the format of monotonic association (and use Spearman's rank correlation test, as described in chapter 2).

**Finally**, 6 corresponding hypotheses were formulated. At this point, the research was ready to be moved to the stage of final conceptualization and methodology.

## CHAPTER 2. METHODOLOGY OF THE RESEARCH OF INTERRELATIONS BETWEEN UKRAINIAN POPULATION'S TRUST IN NATIONAL POLITICAL INSTITUTIONS, 2014-2018

As the research's theoretical background and the corresponding methodological recommendations were outlined in chapter 1, the research's framework would be highlighted in chapter 2. Chapter 1 was dedicated to how the main concepts of this research could and had to be conceptualized, measured and verified. Chapter 2, though, would clarify how these actions *were* conducted for the research's context, grounding on recommendations from the reviewed literature. Provided that, the three questions from the chapter 1 could be transformed for chapter 2 as follows:

1. What was meant by Ukrainian president, parliament and government if they were treated as Ukrainian political institutions in the research?
2. How was trust in these political institutions conceptualized and how was it measured?
3. How would the verification procedures of trust in these political institutions be conducted?

Concordantly with the first two questions, **to begin with**, the conceptualization and operationalization of the study main concepts would be finalized (part 2.1) to fulfill the requirements of tasks 1 and 2. **Then**, the selection/preparation of empirical data (part 2.2) and the procedures of hypotheses verification (part 2.3) would be described to answer the third question, as well as to provide the base for the completion of the remaining task 3 in chapter 3.

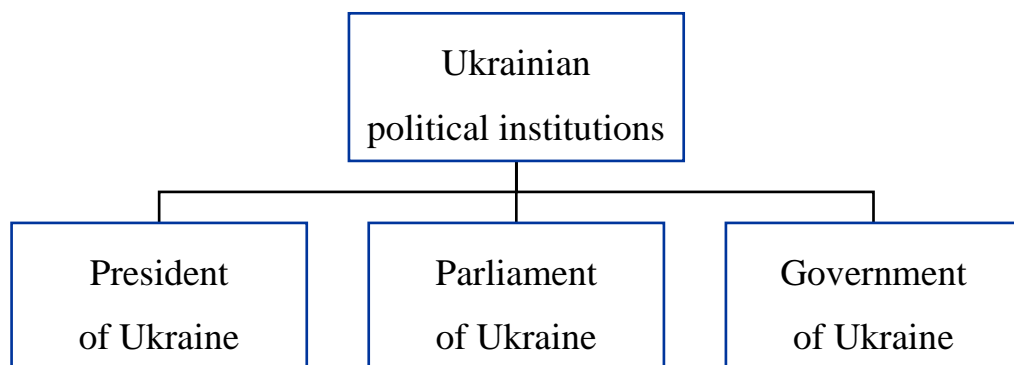
It should also be noted that this research tackled the trust level self-evaluation by the Ukrainian population, and thus the conceptualization, operationalization and data procedures were conducted from the quantitative approach.

## 2.1. Conceptualization and operationalization of trust in Ukrainian president, parliament and government

As put in the questions 1 and 2 above, the conceptualization and operationalization of the central concepts were conducted in two steps. *Firstly*, the concept of a political institutions was defined for the research's context and, subsequently, Ukrainian president, parliament and government (2014-2018) were conceptualized as Ukrainian political institutions (section 2.1.1). *Secondly*, trust in a political institution (as the root-category) and, respectively, trust in Ukrainian president, parliament and government were conceptualized and operationalized (section 2.1.2).

**2.1.1. The president, the parliament and the government of Ukraine as political institutions.** Grounding on the definitions and implications by Giddens (1984), Offe (1996; 1999) and Miller (2003), for the purpose of this research **political institutions** were understood as structures of enduring norms and practices that order the society's authority relations and may exist as state authority bodies (and their officeholders). The context of this research involved precisely three *Ukrainian political institutions* (pic 2.1):

- 1) president of Ukraine (Ukrainian president);
- 2) parliament of Ukraine (Ukrainian parliament);
- 3) government of Ukraine (Ukrainian government).



**Pic. 2.1. Ukrainian political institutions in the context of the research**

Concordantly with The Constitution of Ukraine (1996/2019), **the president of Ukraine** was defined as the head of the state of Ukraine, who speaks on behalf of the state and guarantees:

- «state sovereignty and territorial integrity»;
- «compliance with The Constitution of Ukraine»;
- protection of human rights and freedoms;
- implementation of the strategic course of Ukraine's Euro-Atlantic integration.

Accordingly, Petro Poroshenko was the president of Ukraine (the officeholder, as defined by Offe, 1996; 1999) from 2014 to 2019.

Next, **the parliament of Ukraine** is Verkhovna Rada of Ukraine – the sole legislature body of Ukraine (The Constitution of Ukraine, 1996/2019). In terms of the officeholders (Offe, 1996; 1999), it was represented by Verkhovna Rada of Ukraine of the 8th convocation in 2014-2019.

Finally, **the government of Ukraine** is Cabinet of Ministers of Ukraine – the chief body in the executive branch of the state authority (The Constitution of Ukraine, 1996/2019). In 2014-2019 the officeholders (Offe, 1996; 1999) of the government of Ukraine were the members of the first Yatseniuk Government (2014), the second Yatseniuk Government (2014-2016) and the Groysman government (2016-2019).

It should be noted that the actual cadency period was outlined for each institution's officeholders (Offe, 1996; 1999) above. Although, this research's context included the period of 2014-2018. Overall, though, in section 2.1.1 the task 1 was completed.

**2.1.2. Trust in the president, the government and the parliament of Ukraine.** The conceptualization of trust in a political institution in the context of this research included the definition itself, as well as its basic properties and its additional possible properties, which might help to clarify the concept.



**Trust in a political institution**, therefore, was defined as a general belief that a political institution and/or its officeholder(s) will conduct policymaking according to the one's expectations of positive behavior (Offe, 1999; Blind, 2006; Norris, 2016 and OECD, 2017a). Among the others, some of these expectations *could* be: doing no harm to the one; keeping promises; efficiency; fairness; honesty; performance capacity and benevolent motivation of the institution's office-holder (Miller et al., 1990; Thomas, 1998; Newton, 1999; Levi et al., 2000; Blind, 2006; Hakhverdian et al., 2012; Zhao et al., 2015; Norris, 2016). Respectively, these expectations were treated as *possible properties* of trust in a political institution – the elements that may be involved in the one's evaluation of their trust.

Yet the three *basic properties* of trust in a political institution were defined:

- the subject and the object of trust (Hardin, 2000; PytlikZillig et al., 2015; Zmerli et al., 2016b);
- the 3 states of trust (Mishler et al., 1997; Levi et al., 2000; Zmerli et al., 2016b).

Hence, the state's population overall might be considered the *subject* of trust in a political institution, whereas a political institution is the *object* of trust (Hardin, 2000; PytlikZillig et al., 2015; Zmerli et al., 2016b). Then, the 3 *states* of trust in a political institution were outlined, grounding on Mishler et al. (1997), Levi et al. (2000) and Zmerli et al. (2016b):

- 1) actual trust – existence of trust (selecting «rather trust» of «fully trust» when one is was asked to self-report the amount of trust in the institution);
- 2) skepticism – uncertainty to have trust or distrust, withholding judgement (selecting the option «difficult to say»);
- 3) actual distrust – absence of trust (selecting «rather distrust» of «fully distrust»).

To summarize, at this point both the basic properties and the possible properties of trust in a political institution were included in the conceptualization (table 2.1).

Table 2.1.

**Basic and possible properties of trust in a political institution**

Basic properties		
<i>States</i>	<i>Subject</i>	<i>Object</i>
1. Actual trust 2. Scepticism 3. Actual distrust (Mishler et al., 1997; Levi et al., 2000; Zmerli et al., 2016b)	State's population (Hardin, 2000; PytlikZillig et al., 2015; Zmerli et al., 2016b)	Political institution and/or its office-holders
Possible properties		
<i>Expectations about the political institution</i>		
Doing no harm; keeping promises; efficiency; fairness; honesty; performance capacity; benevolent motivation of the institution's officeholder (Miller et al., 1990; Thomas, 1998; Newton, 1999; Levi et al., 2000; Blind, 2006; Hakhverdian et al., 2012; Zhao et al., 2015; Norris, 2016)		

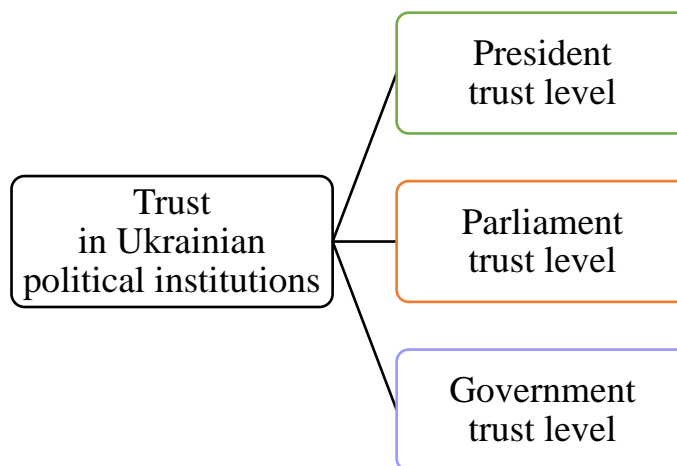
Correspondently, for the research Ukrainian (Ukrainian population) were treated as the object of trust, while Ukrainian president, parliament and government were the objects (Hardin, 2000; PytlikZillig et al., 2015; Zmerli et al., 2016b). Therefore, three entities of Ukrainian population's trust in *Ukrainian political institutions* of 2014-2018 and/or its officeholders (Offe, 1999; Norris, 2016; Zmerli et al., 2016b) were studied:

- 1) trust in the president of Ukraine (**president trust**), or then-president of Ukraine Petro Poroshenko as the officeholder;
- 2) trust in the parliament of Ukraine – Verkhovna Rada of Ukraine (**parliament trust**), represented by Verkhovna Rada of Ukraine of the 8th convocation;

- 3) trust in the government of Ukraine – the Cabinet of Ministers of Ukraine (**government trust**), or members of the first Yatseniuk Government (2014), the second Yatseniuk Government (2014-2016) and the Groysman government (2016-2019, although, as discussed earlier, this study focused on the period of 2014-2018).

Trust in each of the three institutions was operationalized as the level of trust in this political institution (*trust level*), as depicted in pic 2.2:

- 1) president trust level;
- 2) parliament trust level;
- 3) government trust level.



*Pic. 2.2. Trust in Ukrainian political institutions*

Each of the three trust levels was measured on a 5-point ordinal scale. The corresponding variables in 2015-2018 KIIS datasets had the 5-point scale assigned originally, although the key of the ordinal variables was reversed into the direct format during data preparation (KIIS, 2015; 2016; 2017; 2018):

1. Fully distrust
2. Rather distrust
3. Difficult to say
4. Rather trust
5. Fully trust

The dataset of 2014 (KIIS, ZN.UA, 2014), however, involved a 10-point scale (1 = «do not trust at all»; 10 = «fully trust»), which was recoded into a 5-point format for alignment with the scale above (see section 2.2.3 for the details on variables recoding).

As a result, the study's main items were conceptualized and operationalized in part 2.1 in concordance with theoretical basis from chapter 1. Consequently, the respective **tasks 1** and **2** of the research was finally **fulfilled**.

## **2.2. Empirical base selection and preparation**

As it was decided in chapter 1, this study would rely on Ukrainian national survey data, as Ukrainians' self-reporting of their trust in political institutions was pre-assumed. Correspondently, the selection of empirical data and its preparation for the research's purposes (weighting and variables recoding) was described in part 2.2. Hence, the ground for data analysis would be prepared and the contribution would be made to the completion of the task 3 in chapter 3.

**2.2.1. Empirical base selection.** The research data included 5 survey datasets of Kyiv International Institute of Sociology (KIIS): December 2014's dataset of KIIS's omnibus survey for ZN.UA (KIIS, ZN.UA, 2014) and 4 datasets of KIIS December's typical omnibus surveys of the years 2015, 2016, 2017 and 2018 (KIIS, 2014; 2015; 2016; 2017; 2018), respectively (table 2.3).

Table 2.3.

**Research datasets (KIIS) by year and dates of their data collection**

Year	Survey	Date of collection	Source
2014	KIIS omnibus survey for ZN.UA	04-19.12	KIIS, ZN.UA (2014)
2015	KIIS December's omnibus surveys		KIIS (2015)
2016		02-12.12	KIIS (2016)
2017		01-14.12	KIIS (2017)
2018		30.11-14.12	KIIS (2018)

All 5 surveys were conducted through face-to-face, pen-and-paper personal interviews (PAPI). Each research's sample was a 4-stage stochastic sample the that involved respondents (sample size ranged from 2022 to 3035 respondents, according to the table 2.4) aged 18 and above in all regions of Ukraine, except the occupied territory of Crimea and specific areas of Donetsk Oblast and Luhansk Oblast that were uncontrolled by Ukrainian government.

Table 2.4.

**Sample size (N) and sampling error of KIIS survey datasets by year**

Year	N	Error	Source
2014	3035	$\leq 1.8\%$	KIIS, ZN.UA (2014)
2015	2022	$\leq 3.3\%$	KIIS (2015)
2016	2040		KIIS (2016)
2017	2039		KIIS (2017)
2018	2034		KIIS (2018)

Hence the samples were representative for the public opinion of adult Ukrainians for the moment of their collection, and, as shown in table 2.4, the

sampling error ranged from  $\leq 1.8\%$  to  $\leq 3.3\%$  with confidence interval (CI) = 0.95 and design-effect = 1.5. The datasets for years 2014-2016 were downloaded from KIIS's National Bank of sociological data. (n. d.), while the datasets of 2017 and 2018 were kindly provided for the research directly by KIIS.

Such empirical base *was selected for several reasons*. To begin with, the datasets were representative for Ukrainian adult citizens' trust in political institutions (KIIS, ZN.UA, 2014; KIIS, 2015; 2016; 2017; 2018). Secondly, the measurement of trust in political institutions corresponded to the questions that are commonly used in political trust polls internationally (see WVS World Values Survey, n. d.; ESS ERIC, n. d.a etc.). Moreover, 4/5 datasets (for years 2015-2018) had aligned measurement of trust, as well as the variable coding, which made the data preparation easier (KIIS, 2015; 2016; 2017; 2018). Next, the datasets corresponded to the time context correspondently of the research the most: the data highlighted the Ukrainians' political attitudes from the point when all 3 studied institutions had been already re-elected/re-appointed after Revolution of Dignity (December 2014) and to the later period of post-Maidan state power (December 2018). Also, there were additional benefits from such dataset combination, as the datasets allowed to track the level of trust in political institutions with equal time spaces (December of each year).

On the other hand, the selected empirical base produced *limitations* that had to be considered. Firstly, datasets were representative for adult Ukrainian citizens, and thus people under 18 were excluded from the samples (KIIS, ZN.UA, 2014; KIIS, 2015; 2016; 2017; 2018). Although Ukrainians in general were the object of this research and while the representation limitation was taken into account, it was not found a substantial obstacle: it could be assumed that adult citizens in particular were the most relevant sociodemographic category as Ukrainians gain, for instance, the right to vote on national and local elections at 18 years of age. Secondly, the duties of Ukrainian President Petro Poroshenko, Verkhovna Rada of Ukraine of the 8th convocation and Cabinet of Ministers of Ukraine in May, June and August 2019 respectively, whereas the selected dataset did not include the period post-December

2018. In general, it might have been relevant to study interrelations of trust in the three political institutions in 2019 (until the end of their cadencies), but the equal time spacing would have been violated. Moreover, the new presidential campaign started on December 31<sup>st</sup> in 2019 and continued till April 2020. Consequently, Volodymyr Zelens'kyi, having been elected the president of Ukraine, started his cadency in May and dissolved the parliament, signaling the new parliament elections campaign.

Provided such sociopolitical background, the interpretation of trust interrelations in the first half of 2019 might have been more complicated. It could also be assumed that the dynamics of the election campaigns' cycle and the period of state authority change themselves had connection to trust levels (as partly implied by Hooghe, 2017, based on Citrin, 1974). Overall, the mentioned limitations were considered, but they did not imply that the research's data selection was not appropriate.

Additionally, it could be argued that further verification of hypotheses for the multiyear-period could have involved creating and integrated dataset by merging 5 single-year datasets. However, such methodological step might have caused issues in further analysis procedures. Firstly, each of the 5 datasets is representative (KIIS, ZN.UA, 2014; KIIS, 2015; 2016; 2017; 2018) for Ukrainian adults at the specific moment (in December of that year), but the mixed dataset might not have been representative for the whole studied period (December 2014 – December 2018), even though time spaces between original datasets was close to equal. Respectively, it would have been also difficult to interpret analysis results. Secondly, the integrated dataset may have required additional multistage data weighting procedure, thus the process would be also more time- and effort-consuming.

Overall, with the integrated dataset a) the analysis results would have been unreliable and complicated to interpret; b) additional efforts for complicated data weighting would have been involved. Therefore, the choice was made to conduct analysis procedures on *each of the 5 datasets separately* instead where each year was represented by the dataset.

**2.2.2. Weighting of the datasets.** Each dataset (KIIS, ZN.UA, 2014; KIIS, 2015; 2016; 2017; 2018) included an original weight variable (Appendix A). Therefore, all datasets were weighted with their corresponding weight variables before recoding and analysis procedures.

**2.2.3. Variables coding.** Each of the 5 datasets (KIIS, ZN.UA, 2014; KIIS, 2015; 2016; 2017; 2018) included a separate trust for each of the three studied political institutions: president trust, parliament trust and government trust (for the variables' original names in datasets see Appendix A). Respectively, original variables were adopted from datasets with further 3-steps of recoding procedure for the purpose of the research: inversion of the key of the variables in the datasets of 2015-2018; alignment of the 2014's dataset trust variables scales with measurement in 2015-2018's datasets; assurance of missing variables category.

Firstly, it should be noted that the variables of president, parliament and government trust in *2015-2018* datasets (KIIS, 2015; 2016; 2017; 2018) had originally aligned measurement (5-point ordinal scale plus the option of «no answer») and coding. Although, the key of the original variables 2015-2018 datasets was inversed (KIIS, 2015; 2016; 2017; 2018) and, consequently, had to be recoded (inversed) into the direct key to represent increase of trust with the value increase:

- Fully trust: 1 -> 5
- Rather trust: 2 -> 4
- Difficult to say: 3 (remained)
- Rather distrust: 4 -> 2
- Fully distrust: 5 -> 1

Secondly, however, 2014's dataset (KIIS, ZN.UA, 2014) included a different 10-point ordinal scale (1 = «do not trust at all»; 10 = «fully trust»; also included the options of «difficult to say» and «no response») for the 3 trust variables. A 10-point range would have enabled application of more common data analysis methods like multiple linear regression, which means the analysis results could have been more detailed than with the measures of association for 5-point ordinal scales. Moreover,



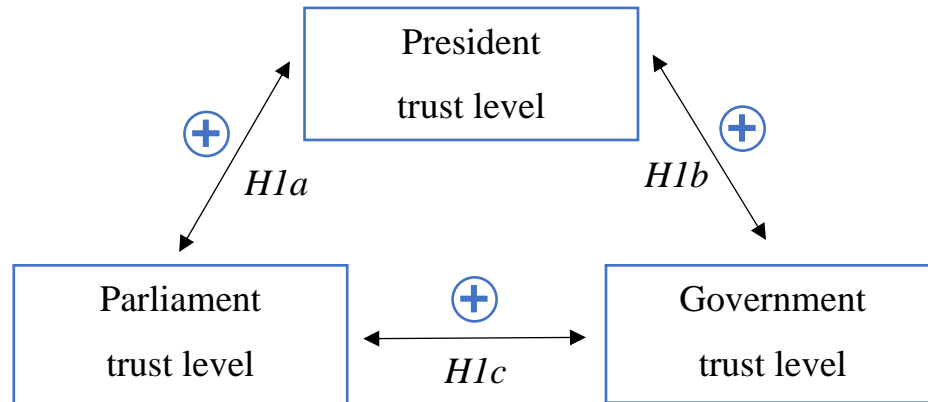
it would have been possible to test linear relationships. However, while relations estimated through 5 years had to be compared in the research, trust variables from 2014's dataset (KIIS, ZN.UA, 2014) had to be aligned with 2015-2018's common format (KIIS, 2015; 2016; 2017; 2018). Hence, the recoding (described in Appendix B) was conducted for the switch from the 10-point scale to the 5-point scale.

Thirdly, for each of the three trust variables in each of the five datasets (KIIS, ZN.UA, 2014; KIIS, 2015; 2016; 2017; 2018) the inclusion of «no response» in the missing values category was checked. «No response» was treated as a missing value in the datasets of 2015, 2016 and 2018 (KIIS, 2015; 2016; 2018), whereas for 2014's (original value = 99) and 2017's (original value = 9) datasets (KIIS, ZN.UA, 2014; KIIS, 2017) the values had to be included to the missing values list manually. Although, whilst the option of «difficult to say» in the 2014's dataset (original value = 77, KIIS, ZN.UA, 2014) was listed as a missing value by default, it was excluded from the missing list and transforming into the medium level of trust (new value = 3) during the recoding procedure (Appendix B).

Finally, after all preparation procedures that were described in part 2.2 were completed, the datasets were ready for further data analysis procedures and hypotheses verification.

### **2.3. Data analysis procedures and hypotheses verification**

*IBM SPSS* statistical package was used as the main tool to conduct the analysis operations, including the verification of research hypotheses, whereas *Microsoft Excel* was used as additional application for data visualization. Hypotheses themselves – **H1**, **H2** and **H3** – represented positive monotonic association between 1) president and parliament trust levels; 2) president and government trust levels, as well as 3) parliament and government trust levels (pic 2.3).



*Pic 2.3. Research hypotheses*

Moreover, trust levels meant individual's evaluation of trust. In this case, using linear regression for the estimation of the detailed linear dependence between trust levels would be convenient. However, according to the operationalization, the trust variables were measured on a 5-point ordinal scale. As a matter of fact, 5-point ordinal scales are not suitable for Pearson's correlation and, consequently, simple linear regression methods. It was also possible to conduct ordinal regression or to use general linear model, but interpretation of their output would be more complicated. Therefore, firstly, it was decided to verify H1, H2 and H3 using bivariate **Spearman's rank correlation test** in SPSS, while Spearman's rho ( $r_s$ ) correlation coefficient, relevantly to the research, represents monotonous character of the association between ordinal variables. Additionally, if needed,  $r_s$  might be compared (de Winter, Gosling, & Potter, 2016) with Pearson's  $r$  correlation coefficient ( $r_p$ ), commonly used as a part of factor analysis in political trust studies (for instance, Mishler et al., 1997; Marien, 2011, 2016; Malysh, 2012; Torcal 2016).

Secondly, in order to provide additional information on the association and to represent the results in a common linear regression form, categorical regression through optimal scaling technique (*CATREG*) was applied in SPSS. This method uses categorical data quantification and thus allows to create linear models with categorical variables, including ordinal variables, and to estimate  $r_p$ , standardized regression-coefficients,  $R^2$  etc. (IBM Knowledge Centre, n. d.). The operation was launched as Analyze -> Regression -> Optimal Scaling (*CATREG*), and numeric

format was selected for the variables. Although, it should be emphasized that CATREG was used *only as a supplementary procedure* and did not influence the acceptance or rejection of hypotheses.

Yet, in general, acceptance of hypotheses about association between ordinal trust variables relied on a statistically significant ( $p < 0.05$ ) value of  $r_s$  for the correlation between them. However, as already noticed, the research was based on 5 separate datasets, each representing a specific year between 2014 and 2018, and, which lead to a question on how to verify the hypotheses for the multiyear data. Correspondently, a logical solution to the issue was found:

- 1) interrelations in the hypotheses H1, H2 and H3 represented the through-several-years-context;
- 2) therefore, the affirmed interrelations for the whole multiyear period (2014-2018) were true if they were true for each separate year of the studied period (2014, 2015, 2016, 2017, 2018).

In other words, the logical maximum implied that if the assumptions in H1, H2 and H3 had been viable enough, they would have had to work for any particular year of the study's time context. If they had been found true for some of the years and false for other, it would have been concluded that hypotheses had failed to fulfill their explanatory function for the whole multiyear period, only providing explanation for some of its years.

Accordingly, the verification of hypotheses H1, H2 and H3 involved the operation of Spearman's rank correlation test separately on each year's dataset, in SPSS (Analyze -> Correlate -> Bivariate Correlations -> Spearman with two-tailed option). Then, *H1, H2 and H3 would have been accepted if 2 requirements had been fulfilled* for the correlation between their respective trust variables: firstly, statistically significant ( $p < 0.05$ )  $r_s$  for each of the 5 years and, secondly, positive value of  $r_s$  for each of the 5 years – 2014, 2015, 2016, 2017 and 2018.

Overall, the appropriate verification of H1, H2, and H3 would result in completion of the research's task 3.

To conclude, the research's methodological framework was systemized in chapter 2, based on theoretical implications from chapter 1. **Firstly**, the conceptualization and operationalization of Ukrainian political institutions and trust in them was finalized (accordingly, implementation of *tasks 1* and 2 was finished). **Secondly**, the choice of the research's empirical base – 5 datasets by KIIS – was elaborated: the datasets contained the relevant variables and corresponded to the context of the research, including its object (Ukrainians) and period (2018-2019). Additionally, the data preparation was described to provide transparency for what the further analysis operations were based on. **Thirdly**, the data analysis and hypotheses verification procedures were highlighted, hence, it was decided to use Spearman's rank correlation (with supplementary information from CATREG with optimal scaling) for verification of trust levels interrelations in SPSS. Therefore, chapter 2 provided the ground for further completion of task 3.

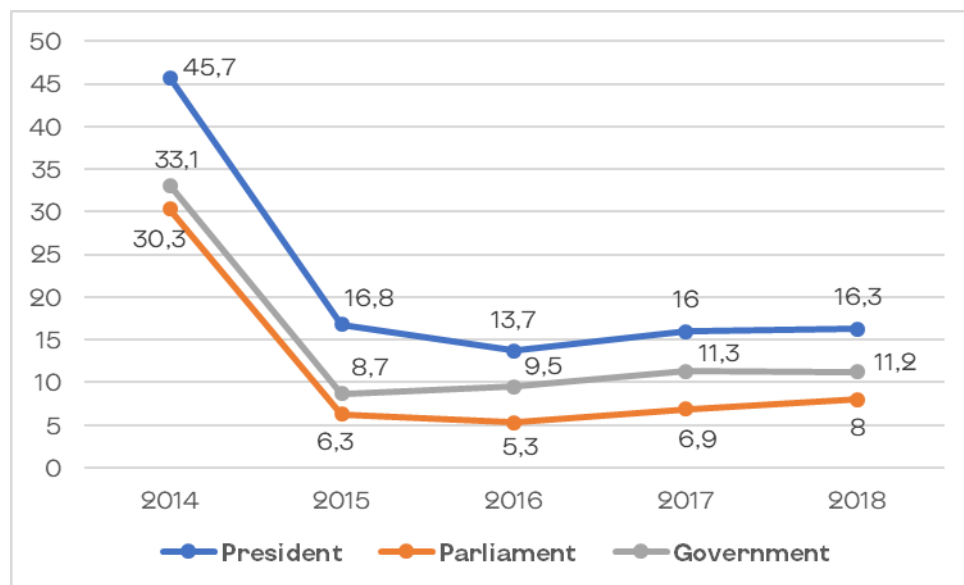
### CHAPTER 3. EMPIRICAL EVIDENCE

#### OF THE INTERRELATIONS BETWEEN UKRAINIAN POPULATION'S TRUST IN PRESIDENT, PALIAMENT AND GOVERNMENT, 2014-2018

All preparation procedures were conducted as described in chapter 2. Subsequently, the verification of all 3 hypotheses about the interrelations between Ukrainians population's trust in the three political institution of the first post-Maidan authority (task 3) would be included in chapter 3.

#### 3.1. Ukrainian population's trust in the president, the parliament and the government in 2014-2018

As highlighted in pic. 3.1, the share of Ukrainian population with actual trust in the president, the parliament and the government decreased substantially between December 2014 and December 2015.



**Pic. 3.1. Dynamics of the share of Ukrainian population with actual trust in the president, the parliament and the government, 2014-2018**  
(KIIS, ZN.UA, 2014; KIIS, 2015; 2016; 2017; 2018)

Thereafter, though, shares of actual trust remained on 2015's level with slight perturbations from that point (pic 3.1). Visually, the alignment of actual trust dynamics between the three political institutions might be traced. Moreover, as seen in tables C.1-C.5, the shares of all trust levels of Ukrainian president, parliament and government in 2014-2018 seemed congruent.

Overall, there was general statistical evidence for the consistency of Ukrainian's evaluation of trust in the three political institutions. Yet the interrelations between trust levels had to be verified using data analysis.

### **3.2. Interrelations between trust levels of Ukrainian president, parliament and government, 2014-2018**

The interrelations between trust levels were verified using bivariate Spearman's rank correlation test. As highlighted in table 3.1,  $r_s$  was statistically significant ( $p < 0.001$ ) and had positive values ( $r_s \geq 0.54$ ) for all institutional pairs in all years.

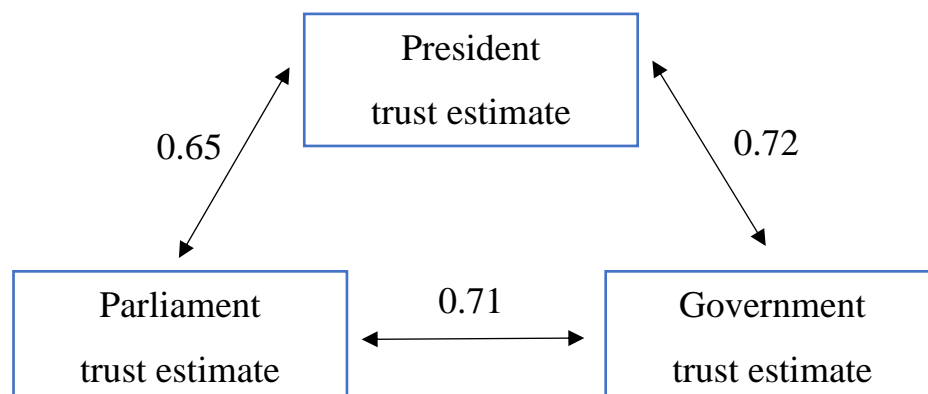
*Table 3.1.*

**Association between trust in president, parliament and government by year and each possible pair, its mean values (Spearman's rho coefficients,  $r_s$ )**

Year	President and parliament	President and government	Parliament and government
2014	0.77	0.76	0.80
2015	0.73	0.75	0.84
2016	0.60	0.75	0.64
2017	0.51	0.68	0.53
2018	0.66	0.66	0.73
<i>Mean, by pairs</i>	0.65	0.72	0.71
<i>Mean</i>	0.69		

Correspondently, both conditions were satisfied for the interrelations between president trust/parliament trust, president trust/government trust and parliament trust/government trust in 2014-2018, which meant **acceptance** of *H1*, *H2* and *H3*. The supplementary optimal scaling CATREG was conducted subsequently (Appendix D). Evidently, the main rank-correlation test's  $r_s$  values were consistent with CATREG's  $\beta$ -coefficients, having only slight differences (table D.1). It could also be suggested that, on the average, trust level of each political institution explained 48% of the variance in the other two institutions' trust level. Moreover, CATREG results indicated no multicollinearity and no existence of confounding variables (and thus spurious correlations) in the triad. Accordingly, it would not be reasonable to say that the three pairs of interrelations could be accounted on covariance.

Generally, the levels of Ukrainians' trust in the 3 studied institutions in 2014-2018 were all mutually related in pairs, while monotonous association was highlighted by  $r_s$  in each case. In other words, for example, Ukrainians with higher trust in the president of Ukraine also had higher trust in the national government. For the mean values of all association pairs  $r_s = 0.69$ , which signaled that, generally, the magnitude of interrelations between levels of trust in the three Ukrainian political institutions might be considered as moderate/substantial, but, actually, only 0.01 point lesser than the threshold of strong to very strong (Davis, 1971 and Hinkle, Wiersma and Jurs, 1979, as cited in Kotrlik, Williams, and Jabor, 2011; Ratner, 2009). The concrete mean  $r_s$  association values were: 0.65 for president/parliament trust levels, 0.72 for president/government trust levels and 0.71 for parliament/government trust (pic. 3.2).



**Pic. 3.2. Interrelations between trust levels of Ukrainian president, parliament and government, 2014-2018 (Spearman's rho,  $p < 0.001$ )**

Hence, strength of association varied from moderate/substantial to strong/very strong (Davis, 1971 and Hinkle et al., 1979 as cited in Kotrlik et al., 2011; Ratner, 2009), though, noticeably, the strength of interrelation between president and government trust levels was lower than in the other two pairs. The results were also rather consistent with the implications by Marien (2011) and Malysh (2012). Yet the latent concept might have had stronger correlation with individual trust variables (Marien, 2011; Malysh, 2012) than individual trust variables with each other (as in this research). Partly, the difference might be explained by the usage of larger scales by Marien (2011) and Malysh (2012).

Nevertheless, several possible interpretations might be suggested for the three values of correlation. For example, it may be assumed that Ukrainian citizens associated president and government with each strongly due to perception of these institutions as central in terms of responsibility for policymaking, important policy announcements, addressing of public issues etc. To continue, the correlation between estimates of parliament and government trust might have been facilitated by the fact that Verkhovna Rada of Ukraine appoints the Cabinet of Ministers (The Constitution of Ukraine (1996/2019), and the ministers themselves appear in the parliament to address or discuss issues, to report for their area of responsibility or to present law initiatives. In other words, the citizens might have associated government and parliament visually. Moreover, the weakest correlation among the



three – between president and parliament – on the contrary, might have been influenced by the fact that president Poroshenko did not attend sessions of Verkhovna Rada of the 8<sup>th</sup> convocation regularly, and thus visual association may not have been created in citizens' perception. However, the lower correlation of president/parliament trust levels might also undermine the assumption about the strength of association of Poroshenko and Petro Poroshenko Bloc in the 8<sup>th</sup> Verkhovna Rada.

Finally, all three tasks of the research were **completed** by the end of chapter 3, and all 3 research hypotheses were confirmed in this chapter (task 3). On the average, trust levels of three Ukrainian political institutions close-to-strong/very strong (Davis, 1971 and Hinkle et al., 1979 as cited in Kotrlik et al., 2011; Ratner, 2009) statistically significant monotonic relationship ( $r_s = 0.69$ ).

## CONCLUSIONS

This research was aimed at estimating the interrelations between Ukrainian population's trust in the three major political institutions during the first post-Maidan years, 2014-2018: the president, the parliament (Verkhovna Rada) and the government (Cabinet of Ministers). Eventually, the acceptance of all 3 research hypotheses indicated that levels of trust in these three political institutions were, practically, strongly interrelated. In other words, trust in each of the three institutions was strongly interrelated with the two other institutions in independent correlation pair. It should be noted, though, that neither the verification of causality relationships, nor the search for possible latent concepts of generalized trust in the state authority and political institutions were in the scope of this paper.

Yet the research made a few contributions to the studies of political trust and the practical framework institutional policymaking. These implications could be virtually divided into four sections. **Firstly**, the maximum (unaccounted for other predictors/factors) strength of bivariate interrelations within all three pairs of the Ukrainian political institutions in 2014-2018 was highlighted. Additionally, CATREG implied on no multicollinearity or existence of confounding variables among the three trust levels. Respectively, one more step was made to the clearer understanding of how exactly the trust in these institutions was (and, possibly, is) correlated, and the ground for further investigations in this field was provided. For instance, it could be reasonable to investigate why the interrelations between levels of trust in Ukrainian president and parliament were weaker than in the other two pairs. Also, deeper understanding of the possible multicollinearity between the trust levels, possible moderating variable and confounding variables is favorable. To conclude this section, for the further investigations on this topic it may be recommended to continue the search for the model which would explain ways, mechanisms and directions in the interrelations between trust in political institutions and their possible underlying factors.

**Secondly**, implications might be drawn from this research regarding *how* to conduct further studies. To begin with, this paper may be used for the references

regarding the definite theoretical issues (like the conceptualization of political institutions) and methodological approaches (like rank-correlation and additional CATREG tests for the trust self-evaluation). Nevertheless, the limitations of this research should also be considered, as, for example, it would be preferable to use larger (7-, 9-, 11-point etc.) ordinal scales to measure trust in institutions. This approach would allow more common and, arguably, more informative methods like multiple linear regression and factor analysis without optimal scaling. Also, it would be relevant to measure at least three aspects of trust: trust in each institution individually, the explicit (with a direct question) trust in the state authority and the latent concept of generalized political trust (see Marien, 2011; 2016).

**Thirdly**, and what might be a more practical interesting for both the scholars and the policymakers (and, possibly, members of the public), this contributed to the interpretation and the prediction of political process in Ukraine. For example, the research's results might be used as the base for the post hoc explanation of the specifics, successes and losses of the first post-Maidan state authority, including the fifth president of Ukraine Petro Poroshenko. More specifically, the decline of the public support for Poroshenko and his peer political actors of 2014-2018/2019 could be discussed.

Although, it is debatable, whether the scenarios of trust dynamics for the current Ukrainian state authority, primarily Volodymyr Zelens'kyi in his team could be predicted with 2014-2018's data as a base. It could be attempted to, and the prediction could be livable, provided that institutional properties are enduring (Giddens, 1984). In general, it could be argued, for instance, that the trust in the 9<sup>th</sup> Verkhovna Rada could depend of the actions of Zelens'kyi or that the trust in Zelens'kyi himself would decrease due to the mistakes of the government or the parliament. In case if the prediction does not work, though, the new topic would arise for the research, and, say, the contributing differences between political institutions of 2014-2018 and 2019+ could be estimated.

However, the topic of predictions suggests the link with the **final** section of the conclusions, which might be important for Ukrainian public in general.

Interrelations between trust in the political institutions indicated on the need and the importance of *common social and political responsibility*. It is unlikely that the president, the parliament or the government of Ukraine will be trusted, if at least one of the institutions is not successful in gaining the public's support. Arguably, the sustainability of and enduring trust in political institutions are not the matter of separately a trusted president, a trusted parliament or a trusted government. On the contrary – it is a responsible institutional teamwork.

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## Appendix A.

### Names of original variables from KIIS datasets that were used in the research

*Table A.1.*

#### Names of original weight variables in KIIS datasets

Dataset	Variable	Source
2014	weight	KIIS, ZN.UA (2014)
2015	weight	KIIS (2015)
2016	weight	KIIS (2016)
2017	weight	KIIS (2017)
2018	weight2000	KIIS (2018)

*Table A.2.*

#### Names of original president, parliament and government trust variables in KIIS datasets

Dataset	President trust	Parliament trust	Government trust
2014	z1.1	z1.2	z1.4
2015	V13	V14	V15
2016	V29	V22	V33
2017	V7_14	V7_2	V7_20
2018	V69	V70	V71
Source: KIIS, ZN.UA (2014), KIIS (2015; 2016; 2017; 2018)			



## **Appendix B.**

### **Recoding procedure for the original trust variables of 2014's KIIS dataset into the format of 2015's-2018's KIIS datasets**

According to part 2.2, variables of trust in political institutions, measured on a 10-point scale, had to be transformed to the format of 5-point scale. In this case, ideally, 5 categories of the recoded variables would need to have such frequencies as if they had been measured on a 5-point ordinal scale from the beginning. To address this criterium, it was decided to compare the frequencies of 5 recoded categories with actual frequencies of trust in Ukrainian political institutions in December 2014 from alternative surveys where trust was measured on a 5-point ordinal scale. Additionally, possible inconsistency of recoded variables frequencies and actual frequencies had to be expected. The difference between them might have implied on the need to change the recoding scheme.

Therefore, the recoded variables frequencies were checked by comparison with the corresponding items in the December 2014 press-release of The Ilko Kucheriv Democratic Initiatives Foundation's (DIF) and Razumkov Centre's research on Ukrainian public opinion (Ilko Kucheriv «Democratic Initiatives» Foundation, 2014). The poll was conducted in December 19<sup>th</sup>-24<sup>th</sup> of 2014 in all regions of Ukraine, excluding the occupied territory of Crimea (although, the exclusion of occupied territories of Donetsk Oblast and Luhans Oblast were not mentioned), the sample was representative for Ukrainian adults (respondents were aged 18+, n = 2008) with maximum error estimate of 2.3% (Ilko Kucheriv «Democratic Initiatives» Foundation, 2014). Relevantly, the survey included trust-questions with 5-point ordinal scales that were consistent with measurement in KIIS datasets (Ilko Kucheriv «Democratic Initiatives» Foundation, 2014):

- «Fully distrust»;
- «Mainly distrust»;
- «Mainly trust»;

- «Fully trust»;
- «Difficult to say».

Provided that, the initial scheme for the recoding of trust variables in 2014's KIIS dataset was applied. According to this approach, the two lowest (1 and 2) and the two highest (9 and 10) values were treated as «full (dis)trust» categories, while values in the middle corresponded to the categories of «rather (dis)trust» (3-5 and 6-8 respectively) and «difficult to say» (77):

- 1 («Fully distrust») and 2 => 1 («Full distrust»)
- 3-5 => 2 («Rather distrust»)
- 77 => 3 («Difficult to say»)
- 6-8 => 4 («Rather trust»)
- 9 and 10 («Fully trust») => 5 («Fully trust»)

However, the comparison with the data of Ilko Kucheriv «Democratic Initiatives» Foundation (2014) indicated inconsistency between frequencies of the categories, as highlighted on the example of president trust in table B.1.

*Table B.1.*

**Frequencies of president trust in DIF December 2014's poll  
and KIIS 2014's dataset with initial recoding scheme**

President trust	DIF	KIIS	Difference: DIF – KIIS
<i>Fully distrust</i>	23.3	20.4	2.9
<i>Rather/mainly distrust</i>	21.0	27.8	<b>-6.8</b>
<i>Difficult to say</i>	6.2	6.1	0.1
<i>Rather/mainly trust</i>	39.7	31.2	<b>8.5</b>
<i>Fully trust</i>	9.7	14.5	<b>-4.8</b>
Source: Ilko Kucheriv «Democratic Initiatives» Foundation (2014); KIIS, ZN.UA (2014)			

As seen in table B.1, frequencies for 3/5 categories may have seemed inconsistent (even with standard error taken into account), which meant that the recoding scheme might have needed adjustment. Then, through observation and calculation of shares it was estimated that moving the value 9 to the category of «Rather trust» could reduce inconsistency. Correspondently, the scheme was modified:

- 1 («Fully distrust») and 2 => 1 («Full distrust»)
- 3-5 => 2 («Rather distrust»)
- 77 => 3 («Difficult to say»)
- 6-9 => 4 («Rather trust»)
- 10 («Fully trust») => 5 («Fully trust»)

Consequently, as highlighted in table B.2, the amount of inconsistency was reduced, while the frequencies of «Rather/mainly trust» and «Fully trust» became close to equal.

*Table B.2.*

**Frequencies of president trust in DIF December 2014's poll  
and KIIS 2014's dataset with adjusted recoding scheme**

President trust	DIF	KIIS	Difference: DIF – KIIS
<i>Fully distrust</i>	23.3	20.4	2.9
<i>Rather/mainly distrust</i>	21.0	27.8	-6.8
<i>Difficult to say</i>	6.2	6.1	0.1
<i>Rather/mainly trust</i>	39.7	37.3	2.4
<i>Fully trust</i>	9.7	8.4	1.3
Source: Ilko Kucheriv «Democratic Initiatives» Foundation (2014); KIIS, ZN.UA (2014)			

Although it was attempted to find a common solution for reducing the difference of -6.8% in «Rather/mainly distrust», changing the values in «Fully distrust» and «Rather/mainly trust» did not achieve such results. Also, there might be questions regarding the logic (apart from arithmetical comparability) of reducing «Fully trust» to only one value – 10. Possibly, respondents who selected the value 10 in original questions from KIIS 2014's datasets treated 10 as an absolute, «full» option, while 9 was not perceived above the «full option». In terms of the values 1-2 on the other side of the scale, respondents might have treated 1 as fully negative state and 2 was treated as not differing significantly from 1, so still very (practically – fully) negative.

To conclude, the issues with remaining difference in frequencies of «Rather/mainly trust» category and interpretation of moving value 9 to «Rather trust» were recognized. Yet, despite these drawbacks, adjusted recoding scheme of trust variables in KIIS 2014's dataset was accepted with its slight bias, while it could be one of few possible relevant solutions in that case and seemed not to determine significant substantial changes in further analysis. Additionally, the adjusted scheme was also verified on parliament and government trust variables, for which the improvements of frequencies difference were also visible.

## Appendix C.

### Shares of Ukrainian population's trust in the president, the parliament and the government, 2014-2018

*Table C.1.*

#### Ukrainian population's trust in the president, the parliament and the government by shares of trust levels (valid %), December 2014

Trust level	President	Parliament	Government
<i>Fully distrust</i>	20.4	25.4	23.2
<i>Rather/mainly distrust</i>	27.8	32.8	31.1
<i>Difficult to say</i>	6.1	10.5	12.6
<i>Rather/mainly trust</i>	37.3	28.2	29.1
<i>Fully trust</i>	8.4	3.1	4.0
Source: KIIS, ZN.UA (2014)			

*Table C.2.*

#### Ukrainian population's trust in the president, the parliament and the government by shares of trust levels (valid %), December 2015

Trust level	President	Parliament	Government
<i>Fully distrust</i>	23.3	32.2	31.8
<i>Rather/mainly distrust</i>	41.7	46.4	43.2
<i>Difficult to say</i>	18.3	15.2	16.3
<i>Rather/mainly trust</i>	14.9	5.8	7.7
<i>Fully trust</i>	1.9	0.5	1.0
Source: KIIS (2015)			

Table C.3.

**Ukrainian population's trust in the president, the parliament and the government by shares of trust levels (valid %), December 2016**

Trust level	President	Parliament	Government
<i>Fully distrust</i>	43.9	52.3	44.5
<i>Rather/mainly distrust</i>	26.5	31.1	29.6
<i>Difficult to say</i>	15.7	11.1	16.3
<i>Rather/mainly trust</i>	9.6	5.1	8.2
<i>Fully trust</i>	4.3	0.3	1.4
Source: KIIS (2016)			

Table C.4.

**Ukrainian population's trust in the president, the parliament and the government by shares of trust levels (valid %), December 2017**

Trust level	President	Parliament	Government
<i>Fully distrust</i>	38.4	45.4	36.4
<i>Rather/mainly distrust</i>	26.5	33.8	33.4
<i>Difficult to say</i>	18.7	13.7	18.8
<i>Rather/mainly trust</i>	13.6	6.7	10.4
<i>Fully trust</i>	2.8	0.3	0.9
Source: KIIS (2017)			

Table C.5.

**Ukrainian population's trust in the president, the parliament and the government by shares of trust levels (valid %), December 2018**

Trust level	President	Parliament	Government
<i>Fully distrust</i>	47.2	52.1	47.6
<i>Rather/mainly distrust</i>	23.9	28.3	27.1
<i>Difficult to say</i>	12.4	11.6	13.9
<i>Rather/mainly trust</i>	11.2	6.3	9.1
<i>Fully trust</i>	5.3	1.7	2.2
Source: KIIS (2018)			

## Appendix D.

### Additional categorical regression analysis

The procedure of optimal scaling categorical regression was conducted to support the main association test. As in the bivariate rank correlation, for categorical regression standardized correlation coefficients ( $\beta$ ) were statistically significant ( $p < 0.001$ ) for all pairs of variables in all years (table D.1).

*Table D.1.*

#### CATREG correlation between president, parliament and government trust levels by year (standardized correlation coefficients, $\beta$ )

Year	President and parliament	President and government	Parliament and government
2014	0.75	0.75	0.79
2015	0.72	0.73	0.81
2016	0.59	0.75	0.63
2017	0.54	0.70	0.57
2018	0.63	0.66	0.72
<i>Mean, by pairs</i>	0.65	0.72	0.70
<i>Mean</i>	0.69		

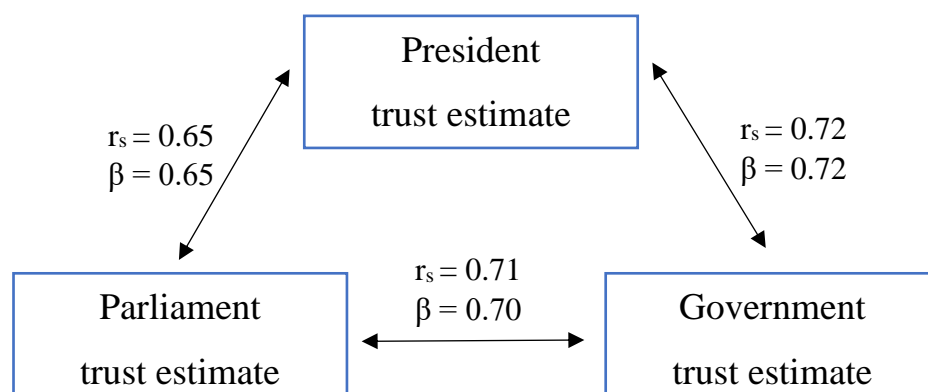
Categorical regression results were consistent with previous results of main association test, as values of  $r_s$  and  $\beta$  seemed correspondent and only slightly different numerically. For example, mean interrelations' values for the pairs of president/parliament trust levels and president/government trust levels were equal, and the mean  $\beta$  for parliament/government trust levels was lesser by only 0.01 than the corresponding mean  $r_s$ . Moreover, the overall mean values of  $r_s$  and  $\beta$  were also equal (0.69). Logically, additional categorical correlation analysis re-confirmed the



evidence provided by the main association test, while strength of correlation between trust levels in the studied Ukrainian political institutions varied from moderate to very strong.

Categorical regression with optimal scaling, though, also contributed to the research in three more ways. Firstly, it contributed to the alignment of this research with method of verification via regression model, which is common for social sciences. Secondly,  $\beta$ -coefficients supplied the main test with additional evidence on how value of trust in an institution changes per change by 1 unit in its predictor variable, *provided that the variables were quantified*. In other words, on the individual level with a decrease in president trust by 1 unit, the value of parliament trust would decrease by 0.65. However, as discussed in chapter 2, the optimal scaling-based results served as additional information and allowed to represent results in a standardized format (in terms of social sciences' common style of data analysis methods). Thirdly, it could be argued that, on the average, trust level of each of the three institutions explained 48% of the variance of the other institution's trust level ( $R^2 = 0.69 \times 0.69 = 0.48$ ).

It could be concluded, though, that mean  $r_s$ -coefficients and additional  $\beta$ -coefficients for the interrelations between president, parliament and government trust levels were consistent with each other (pic D.1).



**Pic. D.1. Interrelations between president, parliament and government trust levels (Spearman's rank correlation,  $r_s$  and categorical regression standardized beta-coefficients,  $\beta$ ;  $p < 0.001$ )**

One more issue should be addressed, though: even though this study focused on independent correlations within the pairs of trust variables, there could be questions about multicollinearity and confounding variables. For example, was it possible that the correlation between parliament trust and government trust is spurious due to president trust's influence on them both? Also, for instance, was it possible that president trust and parliament trust would have inappropriate multicollinearity if they were put in a multiple regression to predict government trust? Respectively, three multiple regression models were built using CATREG for each year with:

- 1) president and parliament trust levels as predictors of government trust level;
- 2) president and government trust levels as predictors of parliament trust level;
- 3) parliament and government trust levels as predictors of president trust level.

According to the CATREG results, in all cases, firstly, both predictors were statistically significant ( $p < 0.005$ ). Respectively, it was unlikely that any of the trust levels would be a confounding variable in the triad. In other words, each trust variables seemed to have unique association with the others. Secondly, no substantial multicollinearity was indicated, as in all models both predictors had the tolerance estimate  $> 0.1$ .