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EDITED BY

Peter Schmidt,
University of Giessen, Germany

REVIEWED BY

Marcus Eisentraut,
GESIS Leibniz Institute for the Social Sciences,
Germany
Gert Pickel,
Leipzig University, Germany

*CORRESPONDENCE

Zsófia S. Ignácz
✉ ignacz@soz.uni-frankfurt.de

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The relationship between political legitimacy and economic legitimacy: empirical explorations of a novel research approach on legitimacy

Zsófia S. Ignácz*

Department for Social Sciences, Institute for Sociology, Goethe University Frankfurt, Frankfurt am Main, Germany

The paper outlines key points of a novel research approach to empirically investigate the question of legitimacy in modern societies. This new research approach utilizes a functionalist perspective to expand the concept of legitimacy. Accordingly, the conceptual framework discusses how legitimacy can be employed in different domains of society. In particular, it proposes to conceptualize both the legitimacy of the political system (political legitimacy) as well as the legitimacy of the economic system (economic legitimacy). The main objectives of the study are to (1) develop conceptualizations that are empirically plausible for the two types of legitimacies; (2) to empirically verify the operationalization; and (3) to assess empirically the relationship between these two types of legitimacies and identify interdependencies between them. The paper employs a macro-level research design to understand the relationship between political and economic legitimacy, where the main units of analysis are countries. The study compiles a new country-level dataset of indicators for political and economic legitimacy based on a large selection of secondary cross-national data sources. It employs then structural equation modeling to established empirical measurement models for political and economic legitimacy. Moreover, the relationship of political and economic legitimacy is explored with a cross-lagged panel model. The paper establishes that political and economic legitimacy are two distinct concepts empirically. Furthermore, the empirical results indicate that political legitimacy has a negative influence on economic legitimacy, whereas economic legitimacy does not effect political legitimacy. Overall, the paper shows the viability of this new research approach and potential pitfalls for future research. The empirical evidence should be interpreted with caution due to low data quality, nonetheless the paper contributes to taking a step closer toward understanding how governments can ensure stable societies.

KEYWORDS

political legitimacy, economic legitimacy, system legitimacy, macro-level analysis, cross-lagged panel model, structural equation modeling

1 Introduction

In recent decades, the volumes of research studies have focused on the concept of legitimacy from different angles. The question of political legitimacy has been scrutinized in research investigations from either a theoretical or an empirical perspective. As such, scholarly enquiry comprises the disciplines of political philosophy and empirical comparative (political) research. Scholars have discussed the definition of legitimacy (cf. Wiesner and Harfst, 2019; cf. Rasmussen, 2022), considered the sources of legitimacy for institutions (cf. Wiesner and Harfst, 2022), contemplated whether legitimacy should be *a priori* defined by a normative agenda, reflecting on whether the source of legitimacy stems from citizenry (Schaar, 1981; Scharpf, 1999; Hurrelmann et al., 2007b), and devised methods to empirically measure the concept (Lamb, 2005; Gilley, 2006; Hindermann, 2018b; Schoon, 2022).

One of the fields most extensively focused on the question of legitimacy is political culture theory. One of the primary research aims of this field is to understand processes connected to regime stability and social transformation (Pickel and Pickel, 2002, 2023). This stimulates scholarly inquiry on legitimacy, as scholars consider legitimacy to be relevant for democracy and regime stability (Easton, 1965b; Hurwitz, 1973; Lipset, 1981). The current study connects to these scholarly discussions on legitimacy and offers new insights building on them, as it is fundamentally interested in understanding what conditions are relevant for the stability of societies, making the study strongly connected to traditions of political culture theory.

Previous studies on the concept of legitimacy have primarily, if not exclusively, attributed it to political systems.¹ Hence, the terms *political legitimacy* and *legitimacy* are often used as synonyms. While the authors have discussed how legitimacy is influenced by processes (primarily economic) beyond the political system (Lipset, 1981; Diamond, 1999), little attention has been paid to the possibility that the concept of legitimacy is expanded beyond the political system (for an exceptions see: Linz, 1988; Barker, 1990). Furthermore, paradoxically, studies on political legitimacy often aim to latch on to a more fundamental debate on system stability (Rasmussen, 2022, 1), but their narrow focus on the political system limits their potential to thoroughly explain societal shifts and changes stretching beyond the political system. In contrast, this study argues that the concept of legitimacy can be expanded to other domains of society, such as the economic system. From this proposition follows that political legitimacy could be considered only *one* of many types of legitimacies, and that other domains of society can also be hallmarked by the term “legitimacy.” Consequentially, a second argument of the study is that the existence of different types of legitimacies puts forth the demand to explore the relationships between these different types. Hence, this study does not only discuss the notion of legitimacy as it relates to the domain of the economic system (i.e., economic legitimacy) but also hypothesizes possible connections between the legitimacy of the political system (i.e., political legitimacy) and that of the economic system (i.e., economic legitimacy).

A further caveat of discussions on the concept of legitimacy is that scholarly endeavors are often unbalanced regarding how much focus is devoted to the theoretical or empirical examination of legitimacy. Theoretical considerations dominate discussions, which often break off before scholars deal with empirical issues related to legitimacy. In contrast, empirical research rarely utilizes a conscious and deliberate operationalization of political legitimacy (for exceptions, see Gilley, 2006; Hindermann, 2018b; Schoon, 2022). In contrast, this study does not wish to stop at the conceptual level and considers the empirical pursuit of the conceptual and theoretical frameworks equally important, especially because it proposes novel conceptual and theoretical frameworks. Accordingly, the study will not only conceptualize the two types of legitimacies (political and economic) and discuss their theoretical relationship but it will also pursue an empirical adaptation of the conceptual and theoretical frameworks. Thus, this study also contributes to strengthening the bridge between theoretical discussions and empirical endeavors on legitimacy. Finally, the study provides traction for political cultural approaches by expanding the term “legitimacy.” Political cultural theory aims to understand the requisites for system stability that stretches beyond the political system, and legitimacy is one of its core interests (Pickel and Pickel, 2002; Rasmussen, 2022, 1). Paradoxically, the majority of political cultural approaches maintain a narrow focus on the political system. This limits political cultural theory’s potential to help assess the system stability of a given society. In short, the political cultural approach may benefit from expanding the meaning of legitimacy to other domains of society.

Overall, the study pursues several research goals. At the theoretical level, it aims to discuss the two concepts and the connection between political legitimacy and economic legitimacy but then also empirically examines the relationship between the two concepts. Beyond this, the study aims to provide practical insights for the empirical analysis by identifying empirical obstacles and methodological pitfalls to aid scholars planning similar endeavors in the future. Accordingly, the study is presented with several tasks to achieve these goals. First, the study needs to synthesize existing conceptualizations of (political) legitimacy to identify key analytical qualities of the theoretical concept that supports transferring the meaning of legitimacy to another domain and provides insights for its operationalization. Second, the study needs to provide a plausible analytical framework that functions as a tool to simultaneously accommodate the ideas of legitimacy for the political system and the economic system. Third, the study needs to match the analytical qualities identified for (political) legitimacy in the domain of the economic system. Fourth, it needs to consider the different theoretical arguments that are plausible to explain the connection between political legitimacy and economic legitimacy. Fifth, the above-described theoretical considerations need to be followed through empirically.

Overall, the study is motivated to complete the arch from theoretical discussion to empirical exploration of the relationship between the established concept of political legitimacy and the newly introduced concept of economic legitimacy. As a consequence, the study readily makes compromises in some aspects (both theoretically and empirically). Nonetheless, the study provides food for thought about the concept and operationalization of economic legitimacy, the theoretical connection between political and economic legitimacy, and the empirical investigation of the relationship between these two concepts. As such, the current study should be considered merely as

¹ Including domains closely related to the political system: legal institutions, police (Tankebe and Liebling, 2014; Tyler and Jackson, 2014).

one of the first attempts to explore the relationship between political and economic legitimacy (for an exception about the theoretical connection see [Linz, 1988](#); for an exception about the empirical connection at the micro level see [Weatherford, 1989](#); for an exception about the empirical connection at the macro level see [Ignác, 2018b](#)). Overall, the study scrapes only the surface of the topic and is confronted with several challenges, not all of which can be resolved in a single study. Much is yet to be studied about the relationship between political and economic legitimacy. With this in mind, the study will conclude with a comprehensive list of suggestions for future scientific undertakings while addressing many of the shortcomings of the current study.

Accordingly, in the following, the study will construct the conceptual framework in which such a definition of political legitimacy is introduced that allows for easy operationalization and adoption to different domains of society. A definition of economic legitimacy is introduced. The methodological framework follows the conceptual framework, as the plausibility of measuring the concepts needs to be considered. The theoretical chapter discusses the relationship between political and economic legitimacy. The second part of the study focuses on empirically investigating the relationship between political and economic legitimacy based on the methodological framework evaluated. The data and methods section presents the dataset used to measure political and economic legitimacy and describes the methodology used in the empirical analysis. Finally, the results of the empirical analysis are presented.

2 Conceptual framework

2.1 Political legitimacy: a widely used term and an ambiguous concept with important, distinct qualities

A review of the literature on (political) legitimacy² in itself is a humbling task, which has been undertaken previously by many scholars (for most recent reviews see: [Rasmussen, 2022](#); [Wiesner and Harfst, 2022](#)). In particular, in the current special issue, [Wiesner and Harfst \(2022\)](#) provide a detailed overview on the genealogy of the concept political legitimacy. While “legitimacy” or “political legitimacy” is common, widely used terms, the definitions and conceptualizations are however many. The conceptualizations vary greatly, and the specific qualities and characteristics of legitimacy are largely guided by the specific research agenda, where a particular definition is employed. Hence, the review in this study for the concept of (political) legitimacy will not (and cannot) be exhaustive and is limited in its extensiveness. Key for the synthesis of conceptualizations is the broadest goal of the study as follows: to follow through with an empirical analysis of the connection between political and economic legitimacy.

² In the literature, the terms legitimacy and political legitimacy are used overwhelmingly interchangeably; however, since in the current study, a different type of legitimacy is also introduced; legitimacy linked to the political system will be referred to as political legitimacy.

Accordingly, the synthesis of existing conceptualizations ultimately needs to weigh on qualities relevant to measure political legitimacy empirically. In particular, approaches need to be identified which present an empirical approach, clarify whether legitimacy is a characteristic at the micro, meso, or macro level, identify from where the proclamation of legitimacy stems, and discuss the modes associated with legitimacy. Beyond this, a secondary but just as important aspect is to consider which conceptualizations allow for an easy transferability of the meaning of political legitimacy to other domains of society.

2.1.1 Brief definition of political legitimacy

Before considering the different aspects described above, it is useful to provide a minimalist definition of political legitimacy. Legitimacy is an attribute that political institutions and political actors in the political system can possess or achieve under certain conditions. If a political institution has legitimacy (or is legitimate), it means that the rules and norms of the political institution are maintained and upheld. Consequentially, actors affiliated with the institution adhere to these rules and norms and contribute to maintaining the legitimacy of the political institution in question. Scholars often connect the notion of power with legitimacy; they make a clear declaration that political power needs to be legitimated in order to be able to function as an authority. Connected to the role of power, another common feature in conceptualizations of legitimacy is that the rules and norms are maintained through compliance with a clear lack of coercion. As such, lack of coercion is observed as a requisite of legitimacy. Finally, in general, legitimacy is observed as a positive quality ([Rasmussen, 2022, 3–4](#)). One of the least disputed aspects of legitimacy, correspondingly, is that lack of legitimacy will mean a certain level of threat and instability within a given society. Political legitimacy is also often observed as a requisite to maintaining social order and norms in society (i.e., beyond political institutions) and, hence, a requisite for social stability ([Lipset, 1959](#); [Hurwitz, 1973](#); [Pickel et al., 2003](#); [Hurrelmann et al., 2007a](#); [Rasmussen, 2022](#)).

2.1.2 Can we measure (political) legitimacy empirically?

One of the most crucial questions for the study is to clear up whether legitimacy can be measured at all. In general, a distinct divide can be identified in the scholarship. The demarcation line is between the discipline of political philosophy and empirical political science. Scholars of political philosophy contend that political legitimacy needs to be defined based on normative principles that also correspond with democratic principles, and this discipline thus employs a normative-theoretical conceptualization of political legitimacy ([Habermas, 1973, 1976](#); [Weber, 1984](#); [Barker, 1990](#); [Beetham, 1991](#); [Weber, 2002 \[1922\]](#)). This conceptualization often does not provide tangible definitions and takes it upon itself to determine the criteria of legitimacy but seldom applies it to a contemporary social setting ([Hurrelmann et al., 2007b](#)). In contrast, empirical political scientists argue that the acceptance, evaluation, and justification of political institutions by citizenry (i.e., the actors) suffice to deem the institutions legitimate. These scholars provide an empirical–analytical conceptualization in which the beliefs of real-world actors are pivotal to assessing legitimacy ([Hurrelmann et al., 2007b](#)).

Scholars empirically exploring the question of legitimacy still show a large variety of foci. Some are occupied by assessing the legitimacy of a certain set of institutions (e.g., that of political institutions (Kriesi, 2013; van Ham et al., 2017; Fuchs and Roller, 2019) or legal institutions (Tankebe and Liebling, 2014; Tyler and Jackson, 2014)), while other scholars have a less specific focus and refer to regime legitimacy (Seligson, 2002) or state legitimacy (Gilley, 2006). Numerous scholars identified legitimacy as one of the single most important characteristics of political institutions that help maintain social order (Lipset, 1959; Easton, 1965b; Hurwitz, 1973; Easton, 1975; Lipset, 1981; Fuchs, 1989). A common foundation in these approaches is that scholars attempt to tap the relationship and dispositions members of society have toward the political system (and its components).

The duality of the normative and empirical approach has stimulated the interest of several scholars and has resulted in the blending of the two traditions. For example, Patberg (2013) advises researchers to avoid employing a solely analytical–empirical approach, where the evaluations of the general public are solely considered, as it can lead to jumping to incorrect conclusions. Instead, he suggests that scholars take the role of the appraiser to assess whether the normative expectations of individuals match that of the (reconstructed) political order. Patberg argues that the (claimed) legitimacy crisis/legitimacy deficit would be assessed drastically differently if this more elaborated approach was employed. Furthermore, regarding this particular issue, Wiesner and Harfst (2022) also suggest incorporating and uniting the two approaches. The coauthors outline a new framework that harmonizes the two traditions of conceptualizing political legitimacy in a two-dimensional typology. The novel framework suggests that the two traditions can be viewed merely as two different sources to assess legitimacy. Hence, they can be observed as two independent dimensions of legitimacy. The first dimension refers to the so-called internal axis of political legitimacy, where the source of legitimacy is an expressed, subjective assessment by the general public of a given country. The authors have coined this dimension *subjective legitimacy*. The second dimension of legitimacy is referred to as the “external axis,” where the assessment of political institutions is executed by an externally defined set of criteria, which are anchored in normative-theoretical foundations. This two-dimensional typology tackles the critique of Schaar (1981), who is put off by analytical–empirical conceptualizations.³

In sum, based on these discussions, political legitimacy is a concept which is meaningful to assess empirically. While the study acknowledges that the approaches combining the normative and empirical traditions are important, it does not have the capacity to consider them consistently throughout the paper. Hence, when referring to political legitimacy, *subjective* political legitimacy is meant hereafter.

2.1.3 Political legitimacy: a question associated with the collective

Now, it has been established that political legitimacy is meaningful to measure; the search continues for conceptualizations providing clues about qualities relevant to measurability. First, beyond the minimal definition highlighted above, authors agree on little about political legitimacy. Scholars overwhelmingly share the notion that legitimacy transcends the individual level. This single common ground already underlines an important quality of political legitimacy important for our purposes. Political legitimacy refers to a (positive) quality of the political system in a given society. This quality is also reflected in the empirical operationalization of the concept. Weatherford (1992), for example, suggests that legitimacy at both levels makes sense conceptually. Gilley (2006) employs a macro-level measurement for political legitimacy. In sum, legitimacy is a macro-level concept.

2.1.4 Targets of legitimacy: object-oriented

One of the most prominent theories dealing with political legitimacy is Easton's approach to system support. Easton's analytical approach stipulates that legitimacy should always be understood in relation to an object. This clear analytical differentiation and the object-oriented approach are also maintained by scholars employing Easton's framework (Fuchs, 1989; Westle, 1989; Diamond, 1999; Dalton, 2004). Other approaches, less closely similar to Eastonian traditions, also emphasize how legitimacy is object-oriented (Patberg, 2013; Hindermann, 2018a,b; Schoon, 2022). Patberg's depiction is concerned with how the relation of the general public is best assessed for political order (*Herrschaftsordnung*) as an object. Elsewhere, Hindermann (2018b, 7) in his theoretical framework formally breaks down the concept of legitimacy into different elements akin to Easton's approach. Based on the study by Lamb (2005), Hindermann (2018b, 8) argues that legitimacy is usually targeted at something, and as such legitimacy has an object. Schoon's (2022) recent publication also operates with the object-oriented nature of legitimacy, as he analytically distinguishes between the *object* of legitimacy, the *audience* assessing legitimacy, and the relationship that ties these two together. In sum, empirical–analytical studies on political legitimacy predominantly devise legitimacy as individuals' disposition toward the political system, and it is considered the target of personal beliefs and is therefore object-oriented.

Beyond this, it is important to consider to what extent scholars acknowledge the political system's multi-faceted topography. The theoretical approach of Lipset (1959, 1981) simplifies the political system to a large degree, discussing its legitimacy (and stability) as a whole, and does not acknowledge more detailed differentiation. The framework of Scharpf (1999, 2010) also only accommodates a rough depiction of the political system. In contrast, the analytical model from Easton offers a more fine-grained approach to the political system. In particular, Easton identifies three objects of (political) support, namely, the political community, the regime, and the authorities (i.e., occupants of formal political roles, where the incumbent may change over a period of time) and discusses how the legitimacy is a “sentiment that may be directed to any one of the three political objects” (Easton, 1975, 451). Scholars adopting and building on the framework of Easton have maintained this differentiation of the political system (Fuchs, 1989; Westle, 1989). Others break down these categories into even finer categories. For

³ “If a people hold the belief that existing institutions are “appropriate” or “morally proper,” those institutions are legitimate. By a surgical procedure, the older concept has been trimmed of its cumbersome “normative” and “philosophical” parts, leaving the term leaner, no doubt, but now fit for scientific duty” (Schaar, 1981, 20–21).

example, Dalton (2004, 58) breaks down the regime into principles, performance, and institutions. Elsewhere, Norris (2011, 24) presents a depiction of the political system in which the different objects presented by Easton can be considered somewhat nested within each other. While the approaches of Dalton and Norris are less explicit about the role of legitimacy, they nonetheless clearly demonstrate the multi-dimensionality of the political system, different dimensions of which have been previously considered in connection with legitimacy.

2.1.5 Expressing legitimacy: the relationship between audience and object

So far, the exact nature of the relation between individuals and the object of legitimacy has not been addressed in this study. Again, the Eastonian definition provides a good point of departure due to its clarity. Easton (1965b, 278) defines political legitimacy as “the conviction on the part of the member that it is right and proper for him to accept and obey authorities and to abide to the requirements of the regime” and suggests that legitimacy fosters the support of the political system. The importance of governing authority also resonates in Scharpf’s definition, which proclaims that legitimacy justifies governing. In contrast, Lipset’s (1981) definition is less focused on authority. Instead, it echoes the sentiment of acceptance of the regime: “Legitimacy involves the capacity of the system to engender and maintain the belief that the existing political institutions are the most appropriate one for the society” (Lipset, 1981, 64).

While these definitions are intuitively clear, little guidance is given regarding how individuals actually express their legitimacy beliefs (and what can be captured empirically). Hence, scholars’ interpretations exhibit a large variety in terms of how to operationalize individuals’ acceptance of authority. Beyond this, large ambiguity reigns among scholarly approaches. For example, even though scholarly endeavors most commonly employ Easton’s framework as the foundation for their empirical work, they do not follow the hierarchy in the terminology verbatim. In particular, Easton clearly distinguishes between diffuse and specific support (i.e., output-focused evaluations) and between the two sources of diffuse support, trust and legitimacy. Furthermore, his framework clearly orders trust and legitimacy as underlying diffuse support.

In contrast, scholarly approaches do not necessarily follow this interdependency of the concepts. For example, Dalton (2004) considers diffuse support to be a proxy for legitimacy (notice the opposite hierarchy of concepts compared with Easton) and then uses a multitude of indicators to measure legitimacy (trust, evaluation of members of parliament, and party identification). Elsewhere, Norris (2011) identifies five different levels for system support, which are nested into one another: approval of incumbent office, confidence in regime institutions, evaluation of overall performance of regime, agreement with core norms, and belonging to nation-state. In a similar vein, Pickel (2019) synthesizes numerous scholarly frameworks to present five different levels of democratic regime: performance of administration, institutional trust, legitimacy of current (governing) regime, legitimacy of political system, and identification with nation (due to space limitations, an in-depth and systematic review of the different approaches is not possible here. For the most recent reviews, see: Mazepus, 2016; Blanco-González et al., 2017; Hindermann, 2018a; Anstötz et al., 2019).

Nonetheless, what seems to be a consistent and persistent feature of the expression of legitimacy is the evaluative component (Westle, 2007). Individuals possess preferences (or demands) about the regime (or its components) and match them with reality (van Ham et al., 2017). Hence, political legitimacy captures the evaluation of the political system as a whole.

2.1.6 Legitimacy beyond the political system: on transferability and terminology

A final issue that needs to be addressed is whether it is plausible for the concept of political legitimacy to be transferred to a different domain of society. The object-oriented nature of legitimacy makes the concept a good candidate for this. In fact, a recent conceptualization of legitimacy by Schoon (2022) also attempts to free legitimacy from the confinement of the political system. In his study, Schoon disentangles the object of legitimacy from the political system, opening avenues to expanding the object of legitimacy to other systems and social institutions. Hence, we arrive to the possibility of speaking of different types of legitimacies and transferring the concept to other domains of society.

If we accept the proposal that the object of legitimacy can be transferred to other domains, there is a need to adjust the terminology that has been employed until now. It should be consistently stipulated to which domain legitimacy is referring. As such, the term *political legitimacy* should be employed for the legitimacy of the political system. Consequently, the different types of legitimacies can subsumed under the umbrella term of “legitimacy.” The current study adopts this terminology.

Accordingly, previous sections established a working definition for the concept of *political* legitimacy. Political legitimacy refers to a *macro*-level phenomenon that can be *empirically* measured and that captures individual *evaluations* toward the political system. Legitimacy employed for a different domain of society should carry the same qualities as political legitimacy, with the fundamental difference that the evaluations target the particular domain in question.

2.2 Systems theory as a tool for identifying objects of concern for legitimacy beyond the political system

To motivate the development of expanding the universe of concepts under the umbrella term of legitimacy, a suitable conceptual modeling of society needs to be considered. We do not need to search far, as scholars have considered the political system, i.e., the object of legitimacy, as a distinct component of society (Easton, 1965a, 38). In particular, Easton’s functionalist framework discusses that support can be directed at different objects that all constitute parts of the political system. Easton (1960 [1953], 1965a,b) develops the foundations of his political theory in three volumes. He argues that the analytical identification of different subsystems of society other than the political system is necessary. While all subsystems (including political subsystem) are interlinked, they should be dealt with in isolation, as this serves the development of a more empirically oriented political theory. Easton contends that this abstraction is necessary and serves analytical purposes while acknowledging that “all social life is interdependent” (Easton, 1960 [1953], 97). Hence, these sentiments all reflect Easton’s functionalist understanding of society.

A functionalist understanding identifies the political system as a distinct component of society as the political subsystem. The notion that the political system is only one part of society is embedded in the theoretical traditions of Parsonian structural functionalism. This approach provided a foundation for Easton's theoretical work and Luhmann's functional structuralism (Luhmann's systems theory). While these theories have been disregarded in mainstream social science in recent decades,⁴ their intellectual contributions still prime scholars' understanding of society (Loyal and Malešević, 2021, 31). In particular, Parsons developed the AGIL model, which identifies that political institutions fulfill the function of goal attainment (G). Luhmann also singles out the political system as one of the main systems of society in his systems theory. Another commonality of the theories is that both prominent scholars identify the economic system as a further component (or subsystem) of society. Parsons associates the economic system with the function of adaptation (A) of society to the environment. In contrast, Luhmann claims that the differentiation of interaction systems (embedded in rational structures of action and communication with money as the medium) result in complex societal system of the economy. In both theories, the political system and economic system play a prominent role. Moreover, Luhmann discusses how these two subsystems compete for functional primacy in society.

Various scholarly studies echo the sentiment that the political and economic subsystems are key fundamentals of society. For example, the distinct division of economic and political institutions is employed by Kornai (2008) when he discusses the post-socialist transition. In particular, Kornai discusses how post-socialist transitions⁵ rest on various dynamics in the economic and political subsystems.

Hence, a functionalist depiction of societies further underlines the previously proposed expansion of the concept of political legitimacy. According to this train of thought, the legitimacy of the political system is to be considered, but the legitimacy of other subsystems could also be evaluated. We need legitimacy for a certain subsystem so that individuals comply with the prescribed structure. Thus, against such a theoretical backdrop, the current study will examine the concept of legitimacy in different subsystems of society. In particular, it will pay special attention to the political subsystem and its legitimacy and the economic subsystem and its legitimacy.

2.3 Development of the concept of "economic legitimacy"

Based on the conceptual expansion of the term "legitimacy" and the analytical frame of functionalist theory, the current study

introduces the legitimacy of economic institutions (i.e., the economic subsystem), economic legitimacy, as a relevant concept.

Beyond a few mentions, there seems to be little scholarly discussion on economic legitimacy explicitly. In fact, the term is scarcely used and carries very different meanings among scholars employing the term. Some authors use the term as shorthand for summarizing complex individual notions in relation to fairness and distributive justice (Kluegel et al., 1999; Gijssberts, 2002; Castillo, 2011). In contrast, Linz (1988) introduces the legitimacy of social and economic systems as a sister term for political legitimacy, by which he means a kaleidoscope of preferences and satisfaction toward various economic actors, economic regulations, and general economic order. Most recently, Ignácz (2018b) has employed the term to refer to the evaluation of wage distribution aggregated at the country level.

The lack of scholarly study on economic legitimacy potentially has to do with the fact that political science has monopolized the term "legitimacy." This sentiment resonates for Linz (1988, 66): "some readers may object to applying the term legitimacy of the social and economic system, arguing that it is an unwarranted extension of the term."

This limited scholarship also allows for a unique opportunity. The concept of economic legitimacy can be developed in alignment with key qualities of political legitimacy. Hence, the working definition of political legitimacy guides the development of the concept of economic legitimacy. Analogous with the working definition of political legitimacy, economic legitimacy is a *macro*-level phenomenon that can be *empirically* measured and captures individual *evaluations* regarding the economic system. This working definition will allow us to identify research fields with concepts that match these qualities.

2.3.1 Can we measure economic legitimacy?

The above-mentioned working definition guides us to research fields investigating the architecture of the economic system. In particular, the field of (empirical) distributive justice research emerges as promising. Originally, justice was the subject of political philosophy: scholars such as Rawls (1972) and Nozick (1973) argued about what can be considered just and how a just society is organized (also in regard to the distribution of goods). Empirical political scientists at one point claimed the concept of political legitimacy from political philosophers, and a similar dynamic also emerged for justice research. A separate strain of (interdisciplinary) research has emerged that steps away from normative debates and are engaged in empirically understanding the fairness notions of individuals (for a review see: Miller, 1999; Sabbagh and Schmitt, 2016). While the normative strain of scholarship focuses on discussing what would be the fairest way to distribute resources (often with moral underpinnings), scholars with an empirical orientation investigate the conditions under which individuals accept a distributive situation or distributive system (Homans, 1961; Adams, 1965; Greenberg and Cohen, 1982). They also compare the levels of acceptance for income inequalities among countries (Hadler, 2005; Andersen and Yaish, 2012) and attempt to explain cross-country variation in attitudes toward income inequalities (Kelley and Evans, 1993; Gijssberts, 2002).

The agenda of the empirical strain of scholarship provides guidance about the measurability of economic legitimacy. This scholarship deals with attitudes toward different components of the economic system, a clear indication that economic legitimacy can be measured.

⁴ In general, in recent decades, social science has departed from discussing grand social theories and focuses more on middle-range theories that can be empirically easier tested. As a consequence, the expertise of social scientists has become divided along the subsystem of interest, and the study of different subsystems is more limited. Political scientists focus on the political subsystem, sociologists explore rules and norms of the social subsystem, and economists study the regularities of the economic subsystem.

⁵ Kornai (2008) refers to the period when countries of Central East Europe transitioned from socialist regimes to democratic regimes in the 1990s.

2.3.2 Is economic legitimacy a macro-level phenomenon?

A more difficult quality to assess for economic legitimacy is whether it can be considered a macro-level phenomenon. On the one hand, a large proportion of scholarly study on the topic of empirical justice research is embedded in social psychology and concentrates on understanding individual processes and individual assessment of distributive processes (referred to as “microjustice” by Brickman et al. (1981)). However, studies with a more sociological orientation tend to explore attitudes toward income inequalities. These studies report levels of acceptance of income inequality as a characteristic of a certain country or society. For example, Kluegel et al. (1999) reflect on how attitudes toward income inequality contribute to the legitimization of capitalism as a system. Elsewhere, we find some more explicit clues on whether it is permissible (and if so, how) to transfer individual level attitudes to the macro level. In particular, Hegtvedt and Johnson (2000) draw a distinction between individual and societal level framing. The coauthors emphasize that when individual attitudes are dealt with as a collective, mechanisms associated with legitimization can be detected. This sentiment resonates in the approach employed by Ignác (2018b). At the micro level, the attitudes of individuals on justice are the subject of investigation, whereas the aggregation of these attitudes is interpreted as a characteristic of a given country and used as an indication for legitimacy. Hence, it is plausible to consider economic legitimacy as a macro-level phenomenon.

2.3.3 Is economic legitimacy object-oriented?

Some scholars of justice research are interested in more diffuse concepts related to justice (Lerner, 1980) or focus on assessing when individuals deem a certain exchange to be equitable (Adams, 1965). These approaches lack a sense of object orientation. However, a part of justice research scholarship focuses on understanding attitudes toward income inequality and income rules in which the individual is detached from the situation and attitudes target a specific part of the economic system. In particular, the analytical framework of Jasso (1978) suggests that justice attitudes can articulate an individual’s opinion regarding the fairness of any given phenomenon. Hence, these approaches indicate that economic legitimacy can be object-oriented.

Reviewing the scholarship on empirical justice research, we further gain insight into the degree and level of detail to which the economic system is modeled. While in the case of political legitimacy, a somewhat top-down view where often the political system as a whole is meant or multidimensionality is carefully considered, this is less common in the field related to economic legitimacy. Scholars primarily focus on wage distribution and income inequalities. This is most prominently demonstrated when we look at the research strains of the so-called second generation of empirical justice scholars (Berger et al., 1972; Jasso, 1978; Verwiebe and Wegener, 2000; Wegener, 2000). Scholars can be divided into two subfields: order-related justice and outcome-related justice (Hülle et al., 2018). While order-related justice focuses on the preferences of the respondents toward justice principles (Greenberg and Cohen, 1982; d’Anjou et al., 1995; Róbert, 2009), outcome-related justice deals with the justice reactions concerning rewards and outcomes (Castillo, 2011; Ignác, 2018a).

2.3.4 Expressing economic legitimacy

The dominant modes through which individuals reflect on economic institutions correspond with three interrelated concepts:

(justice) evaluations, preferences, and perceptions (cf. Jasso and Wegener, 1997; Janmaat, 2013; Ignác, 2018b). Among these three concepts, perceptions will be the least relevant for economic legitimacy, as perceptions are the subjective observations of individuals of the factual world around them. Perceptions create the world to which individuals refer, and this perceived world becomes reality for individuals (Thomas, 1966). While there is no evaluative component of perceptions, they do constitute an important aspect of the evaluation of the social environment, as perceptions reflect how well individuals have adapted to a given socioeconomic status (Wegener, 1987; Evans et al., 1992). In contrast, preferences emphasize the circumstances individuals wish for or prefer to have and, therefore, provide more insight into the value structures behind individual dispositions (Kelley and Evans, 1993). The final concept is justice evaluations, which constitute the discrepancy between preferences and perceptions (for details, see Jasso and Wegener, 1997). Jasso and Wegener (1997) emphasize that an evaluation is often only expressed indirectly (for example, in the form of acceptance). Ignác (2018b) uses evaluations at the aggregate level to measure the legitimacy of wage distribution. Evaluations (coined “justice” evaluations by Jasso, 1978) are considered an outstanding measure for the legitimacy of economic inequality (Kluegel et al., 1999; Verwiebe and Wegener, 2000; Castillo, 2011). Hence, these approaches indicate that economic legitimacy can be related to evaluative assessment of components of the economic system.

3 Methodological framework

There is a sense of urgency to justify the measurability of political and economic legitimacy; hence, the study now outlines the methodological framework describing the operationalization of political legitimacy and economic legitimacy. While the methodological framework is usually presented after the theoretical framework is elaborated, the placement of this section diverges from this established format. The methodological framework follows the key qualities outlined in the conceptual framework: we seek to operationalize *macro-level* phenomena that can be *empirically* measured and capture individual *evaluations* toward the political and economic systems.

First, the methodological framework already carries in itself the quality of empirical measurability. Second, just as the conceptual framework has focused in large part on the subjective dimension of legitimacy, this approach also continues in the methodological framework. Furthermore, based on the conceptual framework of the study, legitimacy is a property of subsystem(s) and describes the quality of the subsystem. Hence, it is not an attribute of individuals in the subsystem but an attribute of the subsystem itself. From this follows that countries possess this characteristic. Subsequently, legitimacy, in general, is a macro-level phenomenon similar to social cohesion (Dragolov et al., 2016) or ethnic diversity (Alesina et al., 2003). Finally, the evaluative natures of political legitimacy and economic legitimacy indicate that they are expressed by individuals. This quality, however, seems at first glance to be at odds with the fact that legitimacy is a macro-level concept. Hence, there is mismatch in that the source of information for legitimacy comes from individual processes, while legitimacy itself has been established as a macro-level phenomenon. The current study proposes bridging this problem with

isomorphism and transforming information from the individual level to the country level. According to isomorphism, individual evaluations of political and economic institutions can be summarized to reflect the overall quality of these institutions at the macro level (Pickel, 2003; Landman, 2008). While summarizing individual-level responses to represent country-level tendencies has been the target of criticism in the past, scholars have demonstrated that for certain research questions, such an approach is permissive (Welzel, 2003). Recently, this solution has been supported conceptually by Akaliyski et al. (2021), who discuss how countries can be dealt with as meaningful units of analysis. They refer to the notion of the “miracle of aggregation,” where individuals’ cultural values are aggregated to the country level, and the values of post-aggregation reflect the general cultural climate of a given country. This consideration will also guide the data collection (see Section 5.1). All indicators for both political legitimacy and economic legitimacy should be grounded in indicators capturing the evaluations of individuals but aggregated to the country level.

Measurement strategies for political legitimacy look back on an extensive history with similarly diverse solutions as conceptualizations of political legitimacy (see Section 2.1). Hindermann (2018b) gives a detailed and systematic detail of the different approaches. The study identifies both unidimensional and multidimensional approaches, where the selected indicators of political legitimacy are either incorporated into single-item measures (Seligson, 2002; Doyle, 2011; Norris, 2011) or are as a composite of several indicators (Gilley, 2006; Norris, 2011; Blanco-González et al., 2017). Two approaches exhibit more complex measurement schemes for political legitimacy. On one hand, the study by Gilley (2006) on measuring system legitimacy suggests that both confidence in the police and confidence in civil service (measured using items from the World Value Survey) reflect the dimensions of political legitimacy. However, a serious issue with Gilley’s framework is that neither the identified dimensions nor their operationalization is consistent. In the original study (Gilley, 2006), trust in civil service falls under the legality dimension, while in the revised and updated study (Gilley, 2012), the measure is associated with the justification dimension. On the other hand, the research program of Pippa Norris, which now spans over two decades (Norris, 2011), identifies confidence in political institutions as one of the dimensions of system support. She also distinguishes institutional trust from trust in specific actors associated with political institutions (e.g., approval of civil servants is more specific than the approval of institutions). Finally, the operationalization distinctly distances itself from equating political legitimacy with satisfaction with political institutions [similar to Wiesner and Harfst (2022)]. Satisfaction with political institutions is generally more focused on the performance of those institutions, while trust is evaluative (Grönlund and Setälä, 2007; Norris, 2011). Despite the variability in the breadth of indicators associated with political legitimacy, a common denominator among the measures is indicators for political trust (often referred to as “confidence”). In a similar vein, studies in the current special issue also operationalize political legitimacy as trust in political institutions (Bienstman, 2023). Another argument for using political trust as a proxy for political legitimacy is that research shows that individual scores carried over to country level retain their meaning and are isomorphic (Ruelens et al., 2018). Thus, trust in political institutions will be used as proxy for political legitimacy.

The operationalization and measurement of subjective economic legitimacy cannot fall back on such rich research traditions. In general, economic legitimacy should encompass evaluations of economic institutions. However, this might prove to be more difficult to measure, as economic institutions tend to be diffuse. Moreover, for individuals to have evaluations about economic institutions, their focus needs to be anchored and proxies for economic institutions should be used. Ignác (2018b, 2) suggests that the income distributive system is a good candidate to use as a proxy, as wages and income are key components of the economic system with which the general population regularly comes in contact. Evaluations of the income distributive system are essentially the difference between so-called preferences and perceptions of the distributive system (Janmaat, 2013; Ignác, 2018a), and the measure has been researched extensively in the framework of empirical distributive justice research (Jasso, 1978; Jasso and Wegener, 1997). Thus, it is considered an established measure, and evaluation of the income distributive system will also serve as the basis for the measurement of economic legitimacy. Finally, again mirroring the strategy for political legitimacy, satisfaction with income inequalities will be excluded from the analysis, as this measure is much stronger in personal situations and is strongly motivated by self-interest.

4 Theoretical framework: the relationship between political legitimacy and economic legitimacy

The previous sections have served to ground the (working) definitions for political and economic legitimacy. Whereas we can discuss political and economic legitimacy separately in a meaningful manner, discussing the connection between the concepts points toward a more overarching discussion about legitimacy and system stability. Thus, by establishing these two concepts, the further questions emerge: How are political and economic legitimacy connected? Are they connected at all? Is one an integral part of the other? To what extent do they influence each other?

However, so far, there is no straightforward answer available. The concept of economic legitimacy is relatively uncharted, and the relationship can be expected to be complex. Hence, this current study is also tasked with considering plausible connections between political and economic legitimacy before commencing with the empirical analysis of the relationship. In the following, numerous competing propositions are presented.

First, it should be mentioned that a requisite to discussing the connection between the concepts is the affirmation that political and economic legitimacy are distinct concepts. Conceptually, the objects of legitimacy (i.e., the political system and the economic system) for political and economic legitimacy are distinct and different from each other. Furthermore, if we consider how each subsystem fulfills a different function based on the functionalist approach, each function needs to be legitimized to a certain extent on its own. Thus, these considerations ground the assumption that the two concepts are indeed distinct. However, this postulation does not automatically rule out that political legitimacy and economic legitimacy can be potentially considered to fall under the umbrella concept of system legitimacy or that they potentially constitute two interrelated

dimensions of the latter. While an assessment of system legitimacy is beyond the scope of this study, the pursuit of such an issue is especially encouraged if no causal connection (described below) can be empirically identified. Based on these considerations, the study formulates the following hypothesis:

H1: Political legitimacy and economic legitimacy are conceptually different concepts.

If the corresponding null hypothesis can be rejected, an investigation of the relationship should be pursued. It is meaningful to hypothesize both causal directions of the relation, considering that the two subsystems (i.e., the political and economic) are not superior to one another. This also echoes [Luhmann's \(1982\)](#) discussion on the competition of the subsystem for functional primacy. Furthermore, it is meaningful to assume only a positive association between political and economic legitimacy given that both are understood as contributing to the stability of societies and social order and are both observed as a positive phenomenon. Based on this, three distinct, causal connections can be expected.

First, in a study by [Kluegel and Mason \(2004\)](#), the authors propose that acceptance of the economic system fosters acceptance of political regimes. Elsewhere, [Seligson \(2002\)](#) argues that economic instabilities of the system, such as corruption, also destabilize the political legitimacy of a regime. From these considerations, it follows that:

H2a: Higher economic legitimacy fosters higher political legitimacy.

Second, [Ignác \(2018b\)](#) suggests that economic legitimacy is fostered by the interplay of economic conditions and higher levels of political legitimacy. This would suggest the following causal relationship:

H2b: Higher political legitimacy fosters higher economic legitimacy.

A third option would be to have political and economic legitimacy strengthen each other. A mechanism could be similar to what [Easton \(1975\)](#) describes for diffuse support for the regime and authorities, where support for different institutions has the potential to spill over and influence the support rates for other institutions. Easton also discusses how impulses from non-political subsystems can transition to the political subsystem in form of demands ([Easton, 1965b](#), 53–55).

H2c: Political legitimacy and economic legitimacy simultaneously promote one another

The above-formulated set of hypotheses for the connection between political legitimacy and economic legitimacy are presented in [Figure 1](#).

Finally, whereas the current study primarily aims to identify meaningful causal relationships between political and economic legitimacy, it is plausible that no such relationship exists. This is underscored by [Luhmann's systems theory](#), where he suggests that the different subsystems have a logic of their own, are autonomous, and are beyond the boundaries of the subsystems, independent of each other ([Luhmann, 1982](#), 87). In this case, future research should focus on assessing whether a certain typology (defined as the simultaneous levels of political and economic legitimacy in a

society) could be used to explain a certain dynamic within societies, for example social reactions to the COVID-19 pandemic. In particular, even without a direct link to one another, political and economic legitimacy can both contribute to the stability of the social system overall. This is contingent on accepting three premises: first, the social system is not only made up of one single system; second, we can consider the legitimacy of a (sub)system to be an indicator of (sub)system stability; and third, the more subsystems are deemed legitimate, the more stable the overall system is. System stability is akin to the game of Jenga⁶; the more holes the tower structure has, the less stable it will be. If the building blocks represent the legitimacy of subsystems, then the more subsystems are illegitimate, the more building blocks are missing from the tower structure. Hence, the overall system will be less stable. However, some missing blocks need not mean that the whole tower will collapse immediately. Analogously, if only some subsystems are illegitimate, the overall system need not collapse. If this last scenario is reflected the most in the empirical evidence, then it is recommended to develop a complex typology for system legitimacy.

5 Data and methods

If we accept the theoretical premises and guidelines for the operationalization of the concepts of political and economic legitimacy proposed in the previous sections, the next logical step is to commence empirically exploring the relationship between political and economic legitimacy. To do so, a dataset is required that incorporates indicators of political and economic legitimacy so that their relationship can be investigated in detail. The following sections describe in detail the dataset, the indicators, and the employed methods to empirically test the proposed hypotheses.

5.1 Description of the dataset

Currently, there are no datasets available that summarize (indicators of) political and economic legitimacy and report them together. Hence, a dataset first needs to be compiled for the specific purpose of this study. The aim is to compile a dataset in which indicators for political and economic legitimacy are available at the country level. The dataset should have a panel structure where each country is a case, with two or more measurement points for indicators of political and economic legitimacy.

To achieve this, the following steps were employed:

⁶ Jenga is a widespread children's game, where the incentive is to build the highest tower possible by stacking building blocks in a 3-by-3 pattern on top of each other. Players take turns removing single blocks from lower levels of the tower and then place the building block on the top of the tower to build it further. The goal of the game is to prolong the collapse of the tower. The higher the tower, the more building blocks were used from lower levels (and there is a missing block structure), and hence the more unstable the tower will become.

Causal diagrams for hypotheses (H2a, H2b, H2c)

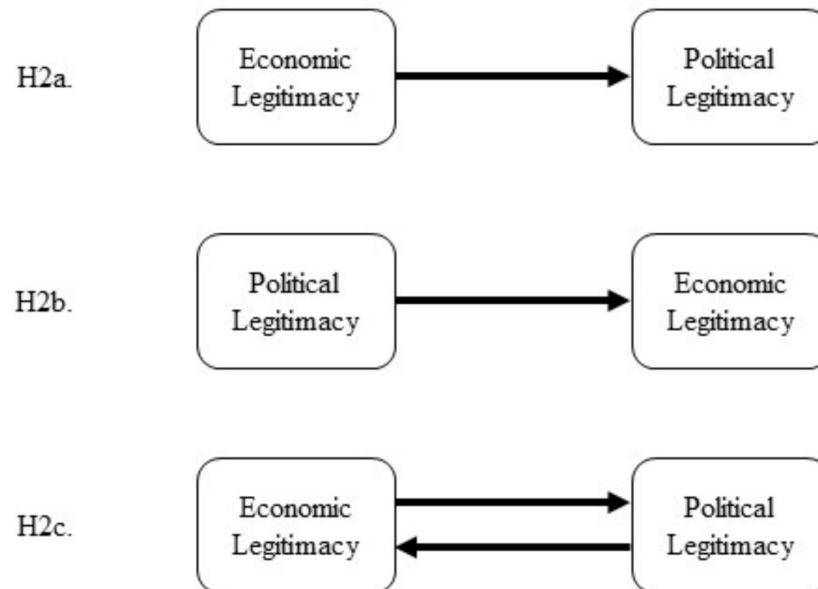


FIGURE 1

Graphical depiction of possible causal relationships between political legitimacy and economic legitimacy.

1. Procurement of primary data sources from public opinion surveys

Description: To ensure high data quality and comparability, the primary data sources stem from large international general population survey projects with transparent documentation about the item wording, sampling, and fielding of the survey. The following primary data sources were used: European Social Survey, World Value Survey, European Value Survey, International Social Survey Program, and Eurobarometer survey. These data sources are those most widely used in a cross-national research (Pickel et al., 2003) due to their aforementioned high quality. For a complete list of data sources, refer to [Supplementary Table A1](#). The primary data sources correspond to surveys fielded between 2009 and 2019 (with 2019 included). 2009 marks the beginning of the aftermath of the Great Recession (Rinz, 2022), while 2019 marks the last year before the start of the COVID-19 pandemic. Both of these global events have deeply affected individuals' relationships to political and economic institutions and, therefore, provided a theoretical well-defined timeframe.

2. Separate data preparation of indicators at the individual level for each public opinion survey

Description: Each indicator associated with political and economic legitimacy in each of the primary data sources is treated for missing and is rescaled, if needed. Since the goal is to compile one single dataset, it is important that the values are comparable, even if the original scaling is different. The general rule of thumb was to rescale each variable to have a range from 0 to 1, where 1 indicates more positive views (evaluations). As all indicators in question have an ordinal

level of measurement, the transformation retains information and variance.⁷

3. Aggregation of individual-level data to country-level data for each public opinion survey separately

Description: All indicators of individual responses were aggregated⁸ to the country level. Simple sample mean values are taken for each indicator. If a country has a higher score on a particular value than another, it means that, on average, respondents had more positive views. Furthermore, each indicator, even if included within the same survey, is aggregated independently from the others. Thus, missing data are handled item-wise (i.e., case-wise deletion is employed). With this approach, the loss of data at the individual level due to missing values and the bias in missing cases is minimized.

4. Merging of country-level data from different public opinion surveys

Description: The aggregated information from the different primary data sources is merged into a single country-level dataset. The information is stored per country per year when

⁷ This approach is distinctly different for creating a binary variable from an ordinal level variable by pooling certain categories together. This solution side-steps the issue of having arbitrarily determine cutoff points but still allows for comparability of the values stemming from different primary data sources.

⁸ The compiled dataset currently contains data aggregated without employing any population weights.

the fielding of the questionnaire has started. Thus, the compiled country-level dataset has the required panel structure.

5. Definition of temporal time frames (from year to wave aggregation)

Description: The compiled dataset consisted of measurement points recorded by year at the time of fielding the survey in a particular country. However, over the period of 10 years (2009–2019) the country-year coverage of the items is sparse because even if a certain set of countries was surveyed for one module of a certain survey, all countries might not have been measured in the same year. Thus, to overcome the caveat in the data structure, the survey years were assigned to waves. The waves summarize information for given periods. Wave 1 covers years from 2009 to 2014, while Wave 2 covers years from 2015 to 2019. The definition of the waves stems from theoretical and pragmatic considerations. Theoretically, 2014 is the year the Great Recession was considered to be easing. Pragmatically, 2014 as a cutoff point also coincides with the completion of the 6th wave of the WVS and EVS. If data for a particular indicator were available for a country multiple times within one wave from the same international survey program as the primary source, then the mean value of the indicator (i.e., the average of the average) was used for that country-wave combination (see Dragolov et al. (2013) for a similar solution for treating multiple data points in case of occurrence more than once in a wave). The overall data coverage benefits greatly from such an approach.

The compiled country-level dataset hence provides information by country for two different waves. This dataset provides the empirical basis for measuring political legitimacy, economic legitimacy, and the association between them. In general, global country coverage is uneven. While all the European Union member states could be included, countries from Africa, Asia, and America are represented to a much more limited degree. Information from 94 countries could initially be accessed for at least one of the waves for one of the concepts, but ultimately, in total, 35 countries had at least one indicator for both concepts and waves. The country sample is strongly biased, and the overwhelming majority of countries are European (for detailed information about coverage per wave and per wave per data source, refer to [Supplementary Figures A1–A6](#)).

5.2 The measurement of political legitimacy and economic legitimacy

Both types of legitimacy are conceived of as latent concepts, i.e., concepts that cannot be measured directly. Hence, for both concepts, measurement models incorporating the selected indicators need to be estimated. Moreover, in the current study, political legitimacy and economic legitimacy are both conceptualized as reflective measurement models. Reflective measurement models work with the underlying assumption that indicators for a certain construct have only proxies for the construct in question. Thus, the manifest indicators imperfectly measure reality, and hence, a certain degree of measurement error is modeled. Such an approach is suggested by Lamb (2014, 33) and is also used by Hindermann (2018b) for political legitimacy. However, an important distinction differentiates the

approach of this study from previous studies: reflective measures for political and economic legitimacy are only constructed at the country level. Hence, no latent constructs are estimated before aggregation. Estimating reflective measures only at the country level also reflects the general principle put forth by Akaliyski et al. (2021). Furthermore, employing reflective measures for a macro-level phenomenon that relied on data sources anchored in individual response showed promising results for the phenomenon of social cohesion, where nine dimensions of social cohesion were each conceptualized as reflective measures (Dragolov et al., 2013, 7–10).

Accordingly, all indicators in the compiled country-level dataset will be considered manifest indicators of the latent factors of political and economic legitimacy. Such an understanding means that irrespective of the primary data source of the indicator, the value will reflect the level of legitimacy. Based on measurement theory, these manifest indicators are however considered imperfect, and measurement error is accounted for in the modeling process. Such an approach is a powerful tool for neutralizing deviances in wording or scaling among indicators stemming from different primary data sources because these deviances can simply be considered measurement errors and accounted for in the modeling without undermining the meaning of the latent factor.

5.2.1 Indicators of political legitimacy and economic legitimacy

The indicators measuring the two key concepts stem from several different surveys. To harmonize the information, the same coding rationale was employed. The coding of the indicators reflects the fact that political legitimacy and economic legitimacy are both positive phenomena. In particular, higher values on any given indicator mean more positive evaluations that will then also contribute to a higher level of (political or economic) legitimacy.

In more detail, this means that at the individual level, before the aggregation, the rescaling already takes this into consideration. All indicators included are attitudinal items with ordinal levels of measurement rescaled so that 1 indicates high acceptance or a positive evaluation of a subsystem, while 0 reflects disapproval or a negative evaluation. In the compiled country-level dataset, due to aggregation, these values can be considered quasi-metric. The meaning of the indicators at the aggregate level is largely retained. For example, given the upper- and lower-boundedness of the source variables, if the country aggregate has the value of 1, it means that everyone in the country agrees to accept a particular feature or condition in society. Issues related to deviations in item-wording and difference in the original scaling are accounted for during the estimation of the measurement model.

Indicators measuring political legitimacy are anchored in items dealing with trust in political institutions. In total, three indicators capturing the general population's trust in certain political institutions are used to measure political legitimacy: specifically trust in (national) government, trust in (national) parliament, and trust in political parties will constitute the basis for the measure for political legitimacy. The item selection is more restrictive than that applied by Norris, as trust in the justice system and trust in police are excluded. Moreover, the item selection excluded items measuring more specific forms of trust (such as trust in politicians, specific incumbents, or civil servants). However, such a restrictive item selection is justified, as these items have been proven to be understood in a similar way across

multiple regime types (Schneider, 2017). Moreover, these three items are a subset of items for the established political trust scale and target the so-called representational institutions of the political system (Marien, 2017).

Indicators measuring economic legitimacy are anchored in evaluations of economic institutions and phenomena of the economic sector. As already discussed in previous sections, (justice) evaluations of the income structure have been used previously to measure economic legitimacy. However, in general, such indicators are considerably more difficult to find, especially those repeatedly measured with established items. Based on a careful review of numerous potential primary data sources, the main impression is that there is a more intense focus on attitudes toward large redistributive measures and the role of the governments, but the selection of indicators for distributive attitudes is much more restricted. In fact, from the widely available and established measures related to income structure, a single item was identified as a plausible indicator for economic legitimacy. Specifically, the evaluation of whether the degree of income inequality in country is acceptable or not. See [Supplementary Table A2](#) for a detailed overview of indicators and their wording.

5.3 Analytical strategy

Political and economic legitimacy as latent concepts position the analytical strategy of the study in a structural equation modeling (SEM) framework. An SEM framework is able to model latent constructs as measurement models and account for measurement errors of the indicators. Moreover, it is also equipped to estimate associations between two or more constructs (structural part) simultaneously. Another benefit of the SEM framework is the full-information maximum likelihood (FIML) method used to estimate parameters. This way, list-wise deletion can be side-stepped and more sparse data coverage can be balanced out. Using the FIML method and the heterogeneity of data sources ensures a large country coverage for the analysis.⁹ The SEM framework also provides us with a set of goodness-of-fit measures, which stem from the log-likelihood value of the maximum likelihood estimation and the nonparametric chi-square value (Brown, 2015; Brown and Moore, 2015). The global fit indices such as CFI, RMSEA, and SRMR further assist in assessing the estimated models with established cutoff points (following the guidelines by Hu and Bentler, 1999).

To test H1, which states that political and economic legitimacy are two distinct concepts, confirmatory factor analysis (CFA) was conducted. CFA helps assess whether indicators for political legitimacy and economic legitimacy load on the same dimension or constitute two distinct factors. In this case, fit indices for two concurrent measurement models were compared: Model 1A looked at whether all indicators load on a single factor, Model 1B, when indicators load onto two separate factors: a factor for political legitimacy and a factor for economic legitimacy (see simplified versions in [Figure 2](#)), for each wave, respectively. If Model 1A can be rejected, measurement models for the two concepts in both waves can be estimated, and the second set of hypotheses can be tested.

To test the second set of hypotheses, which hypothesize different types of relationships between political legitimacy and economic legitimacy, the analysis utilizes the fact that information from two waves is available by employing a cross-lagged panel model. In recent years, research has expanded on the basic cross-lagged panel model, and new model specifications for more precise estimation have been introduced (Xu et al., 2020; Mackinnon et al., 2022). An important merit of all cross-lagged panel models is their capacity to estimate causal relationships, as the temporal aspect of the causal relationship is incorporated into the models. Specifically, cross-lagged models make use of the panel structure and assess the strength of association between two variables. The “crossing” refers to how the direction of the association is estimated simultaneously: the effect of Z (T1) on W (T2) and the effect of W (T1) on Z (T2). In short, the effect of political legitimacy on economic legitimacy is regressed simultaneously as the effect of economic legitimacy is regressed on political legitimacy. [Figure 3](#) depicts the cross-lagged panel model, where economic legitimacy and political legitimacy are modeled as latent constructs.

The initial preparation of the primary data sources was conducted in Stata 16, while the data compilation and analysis were conducted in R (R Core Team, 2023) and Mplus 8.3 (Muthén and Muthén, 1998–2019). The R package MplusAutomation (Hallquist and Wiley, 2018) was used for the CFA; the semPlot package was used for depicting the SEM models (Epskamp, 2019). For all analyses, ML estimator was employed.

6 Analysis and results

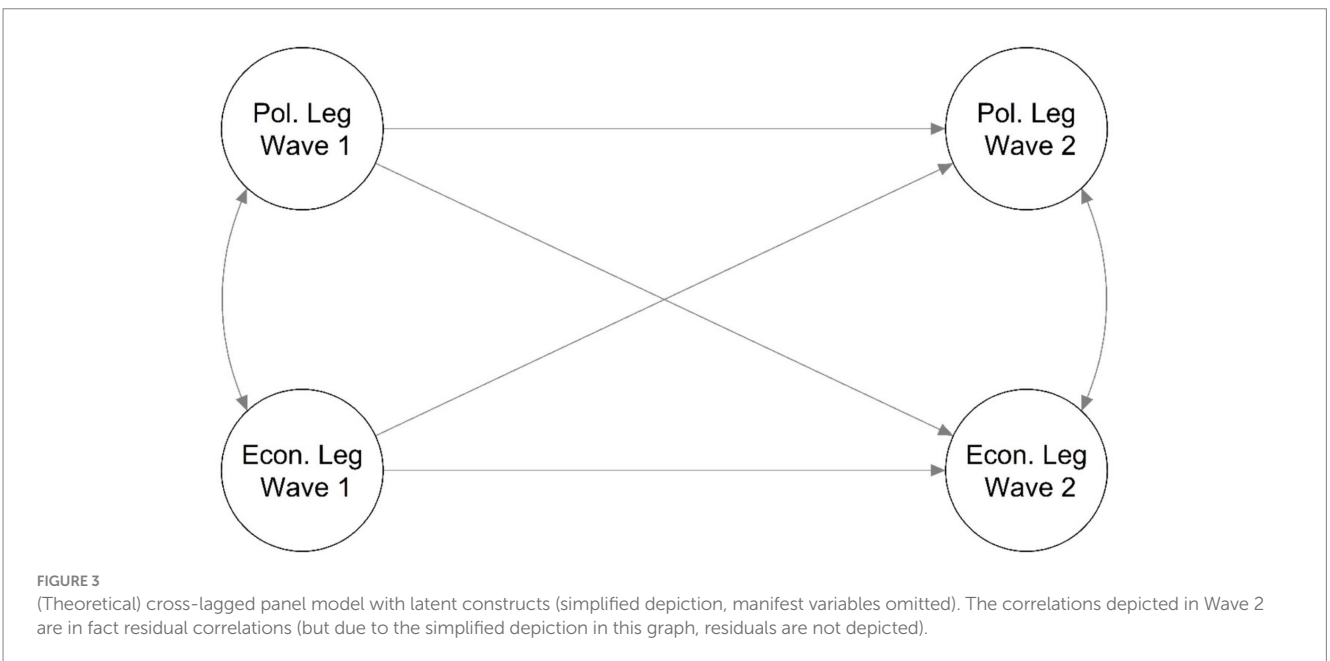
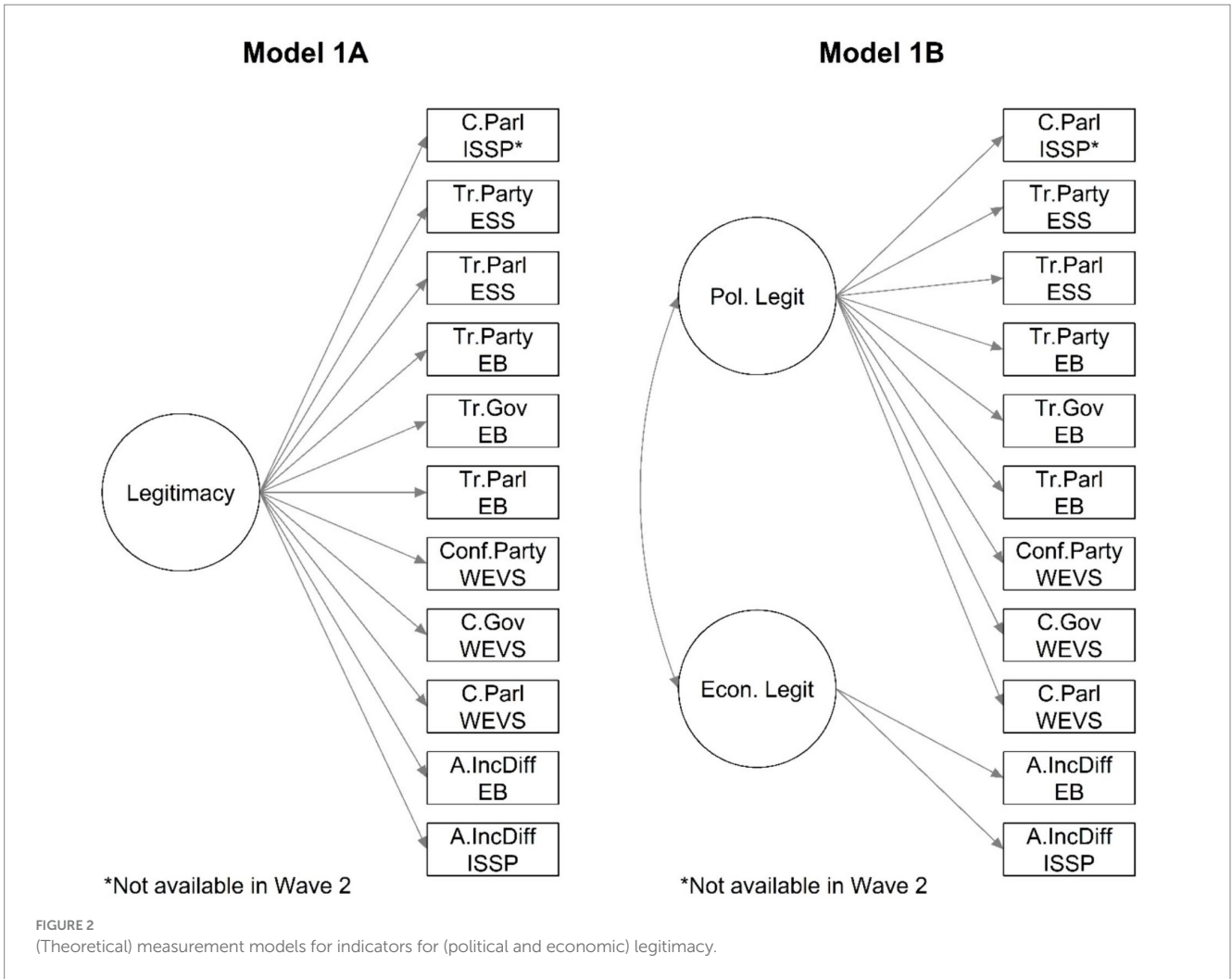
6.1 (System) legitimacy, political legitimacy, and economic legitimacy

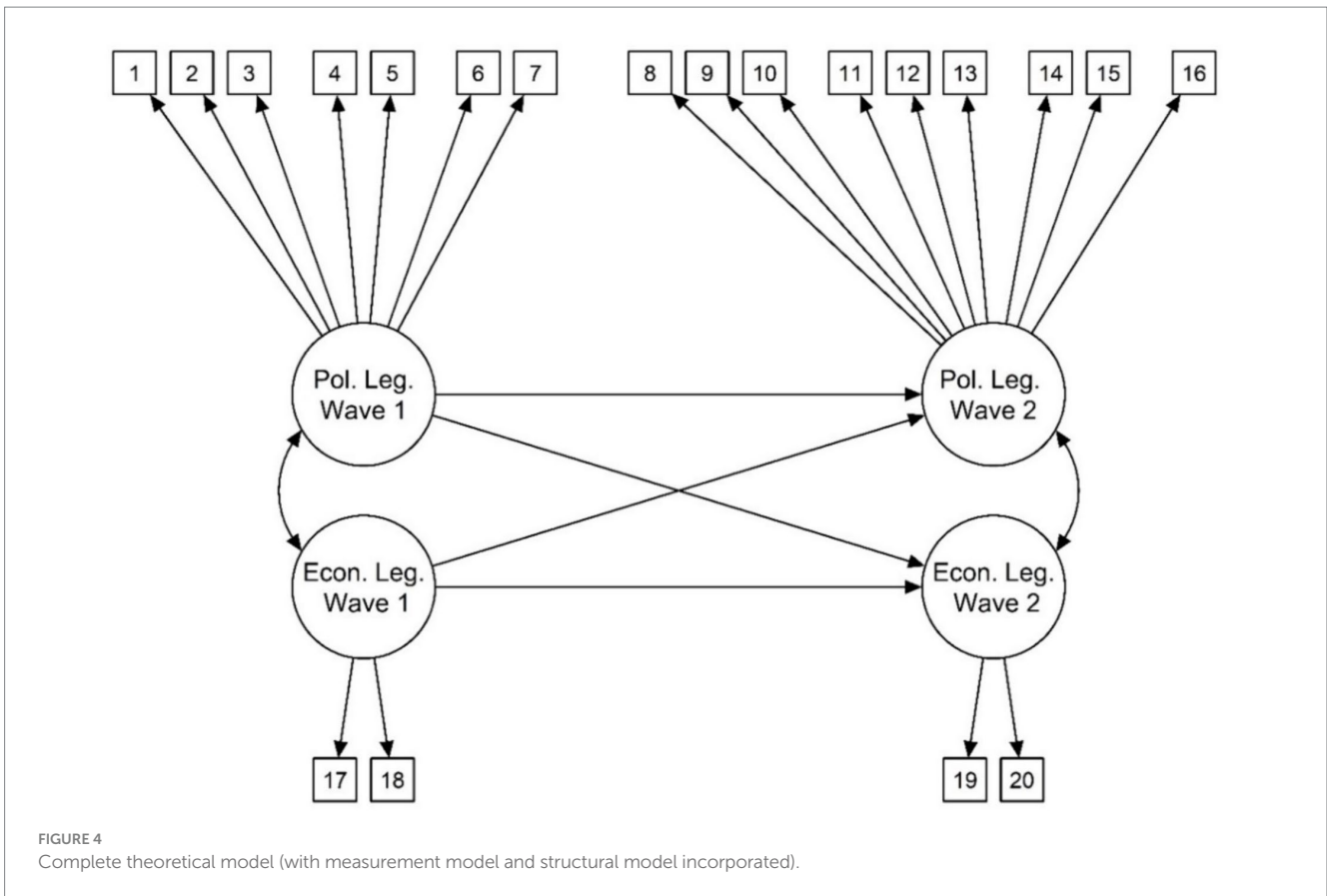
To assess whether political legitimacy and economic legitimacy should be considered, the manifest indicators of the respective concepts need to be investigated. In particular, it needs to be assessed whether the indicators load on a single factor or two different factors. Hence, a unidimensional and a bidimensional factor model need to be compared based on their fit indices. The two competing models for the two waves were estimated separately.

Beyond the theoretical models shown in [Figure 2](#), further models were estimated in which only a selection of the available items was incorporated into the models. The first reason for this was that the shared data coverage for some indicators (typically from different primary data sources) was extremely low. Second, patchy data structure was also systematic; indicators from the same data source had higher shared data coverage. This structure also affects the model estimation, as indicated by modification indices. The initial model modification indices suggested error term correlations for indicators from the same primary data source. Hence, to minimize effects of the coverage structure, the corresponding models were estimated, in which the primary data sources of the indicators were different. With that, the influence of the data structure could be minimized, to test the robustness check of the original models.

Overall, despite the difficulties the data structure poses, the estimated models show a clear tendency that indicators of political legitimacy and economic legitimacy load on two distinct factors ([Supplementary Tables A3, A4](#)). In both waves, the goodness-of-fit values and the AIC values indicate that the bidimensional model exhibits better goodness-of-fit values, or it does not

⁹ FIML's treatment of missing values is also a disadvantage when the sample size is small. Hence, FIML was cautiously employed in model estimation.





produce worse results than the unidimensional solution. The primacy of the bidimensional model, however, is corroborated by the standardized factor loading of the unidimensional model. Here, the indicators of economic legitimacy demonstrate lower standardized factor loadings than the indicators of political legitimacy. Finally, the estimated correlation coefficients estimated in the bidimensional factor solution also suggest that there is a high correlation between the concepts (0.75), but the two concepts are not identical.

6.2 Association between political and economic legitimacy

From the previous section, it follows that political legitimacy and economic legitimacy can be considered two different concepts. Hence, the association between the two concepts is meaningful to investigate empirically within a SEM framework as a cross-lagged panel model. As the first step (i.e., as an intermediate step to test the association), measurement models need to be fitted for the two latent factors (for political legitimacy and economic legitimacy, respectively) as single one-factor models. Then, as a second step, the relationship between the two concepts is assessed as a structural model with cross-lagged features. Figure 4 shows the complete theoretical SEM cross-lagged panel model, where considerations for data sources are not yet incorporated. In the following, the analysis for the measurement model and the structural model are reported separately.

6.2.1 Step 1: The measurement model

Ideally, the two latent factors are estimated as single first-order unidimensional models, where each of the indicators of a given latent construct (independent from their primary source) is determined directly by the latent construct. Several hurdles emerge when estimating the depicted model, as shown in Figure 4. As already mentioned in Section 6.1, the systematic bias in the data coverage means that indicators stemming from the same survey cluster together. Hence, the fact that several indicators stem from the same primary data sources and that this affects the data structure need to be acknowledged in the measurement models. This is done by the introduction of second-order factor models (for comparison, description, and depiction see: Rindskopf and Rose, 1988).^{10,11,12}

10 Second-order factors only need to be employed for political legitimacy. In case of economic legitimacy, no second-order factor needs to be estimated because only single indicators are used per primary data source.

11 This affects the measurement of political legitimacy. Second-order factors were estimated in two different configurations. In one case, all indicators referring to the same political institution were collected in first-order factors, and the second-order factor measures political legitimacy. The second configuration is when the same indicators from the same primary data source are collected in first-order factors and then summarized in a second-order factor.

12 Another approach employed by Dragolov et al. (2016) is to choose for each set of corresponding indicators the indicator with the best data coverage

The number of indicators for political legitimacy allows the estimation of a second-order factor model. The first-order factors estimate the level of political legitimacy measured by each primary data source, while the second-order factor is the linear combination of the first-order factors. The second-order factor was first estimated for the two waves separately. In general, the second-order factor models showed better model fit than single-factor models in both waves. Then, since the measurement model will be incorporated into a cross-lagged panel model, measurement invariance needed to be tested. Based on the guidelines by Rudnev et al. (2018), metric invariance for first- and second-order factors was tested. For model identification, the variance of the latent factors is constrained to 1, as we can expect that the variance does not change across the two waves and that it allows for an unconstrained assessment of the factor loadings. The configural model in which first-order factors loadings were fitted produced acceptable TLI and CFI values, whereas SRMR and RMSEA values were beyond the acceptable threshold. Metric invariance for the first-order factors could not, however, be entirely achieved for political legitimacy (see Supplementary Table A5 for details about the models).

In the case of economic legitimacy, there is only one single indicator available from two different primary data sources. Thus, a single factor model is estimated, where the factor variance is constrained to 1. Due to the limited number of indicators, the model is only identified. This does not make the model reliable (Eisinga et al., 2013). Unfortunately, the Spearman–Brown correlation between the two indicators also reflects mixed connections. In the first wave, 16 countries had values from both surveys, and Spearman–Brown's Rho coefficient had a value of 0.3 ($p=0.25$) (and 0.43 ($p=0.11$); if Cyprus, an outlier was removed from the set of countries). In contrast, in the second wave, the correlation between the two indicators was considerably higher with a value of 0.80 ($p=0.008$), which is encouraging. Overall, no metric invariance could be achieved across the two waves.

6.2.2 Step 2: The structural model

As the final step of the analysis, the estimated second-order measurement models for political legitimacy and economic legitimacy were incorporated into a cross-lagged model (CLM) to assess whether political legitimacy influences economic legitimacy, or economic legitimacy has an effect on political legitimacy. While theoretically and methodologically it is possible to incorporate the measurement models and the cross-lagged model into a SEM model (see the adjusted theoretical model in Figure 5, where error term correlations are omitted from depiction), the sample size of the compiled country-level data and the general data coverage does not allow for the model to be estimated, as shown in Figure 5.

Instead, the so-called factor score regression is employed (Rosseel, 2020). For this approach, the measurement models and the structural part of the cross-lagged model are estimated separately. Moreover, the measurement models previously estimated serve as the basis for the factor scores for both concepts. The cross-lagged model (CLM), where the factor scores for political legitimacy and economic legitimacy were used for model estimation, was then specified, as already manifested.

This is shown in Figure 6. In the structural model, an important restriction in the sample size is introduced. Namely, only those countries with at least one indicator with valid values for each wave and for each concept are included in the analysis. Furthermore, given the inadequate model fit of the economic legitimacy measurement model, CLM models were also estimated, one each for the two primary data sources (see Supplementary Figures A7, A8¹³).

Figure 6 demonstrates that, on the one hand, both political legitimacy and economic legitimacy exhibit positive association between the two waves. In the case of economic legitimacy, the standardized regression coefficient suggests a very high stability between the two waves, as the beta coefficient is higher than 0.9. This is particularly noteworthy if we consider that the raw Pearson's correlation coefficient between the two waves of economic legitimacy has a value of 0.84. While the value is high, it still does not match the degree to which the two waves are correlated once the effect of political legitimacy is controlled. This indicates that political legitimacy plays a relevant role for economic legitimacy. Such an interpretation is also confirmed by the fact that the effect of political legitimacy of the first wave is marginally significant in both models. The models also show that the effect of political legitimacy on economic legitimacy seems to be negative ($\beta = -0.194$, $p = 0.102$). The negative coefficient suggests that the higher the trust in political institutions, the lower the economic legitimacy in the country. However, the lower the trust in political institutions, the higher the economic legitimacy in the country.

In the case of political legitimacy, we can also observe a certain level of stability between the two waves. The regression coefficient of political legitimacy in wave 1 has a positive effect on political legitimacy in wave 2. However, the association is considerably less strong than for economic legitimacy ($\beta = 0.763$, $p < 0.001$). In the case of political legitimacy, economic legitimacy does not play a significant role ($\beta = 0.116$, $p = 0.388$).

7 Discussion: how to move forward?

The current study aimed to expand the concept of legitimacy and use a novel research design to investigate the relationship between political and economic legitimacy on a newly compiled country-level dataset. After mapping out the conceptual, theoretical, and methodological framework, the study set out first to investigate empirically whether political and economic legitimacy should be considered as two distinct concepts. The confirmatory factor analysis found indications that this is the case. Hence, the null hypothesis corresponding to the first hypothesis (H1) can be rejected. This empirical analysis also paved the way for further analysis to investigate the directed relationship between political and economic legitimacy. The results based on the cross-lagged model analysis suggest that there seems to be a directed association between political and economic legitimacy. In particular, political legitimacy affects economic legitimacy, while economic legitimacy does not have a significant effect on political legitimacy. Surprisingly, the relationship

and include only one indicator per item step in a one-factor model for the measurement model.

¹³ As the model, where ISSP was the data source for economic legitimacy, had a very low number of cases ($N=14$), the model is not considered reliable.

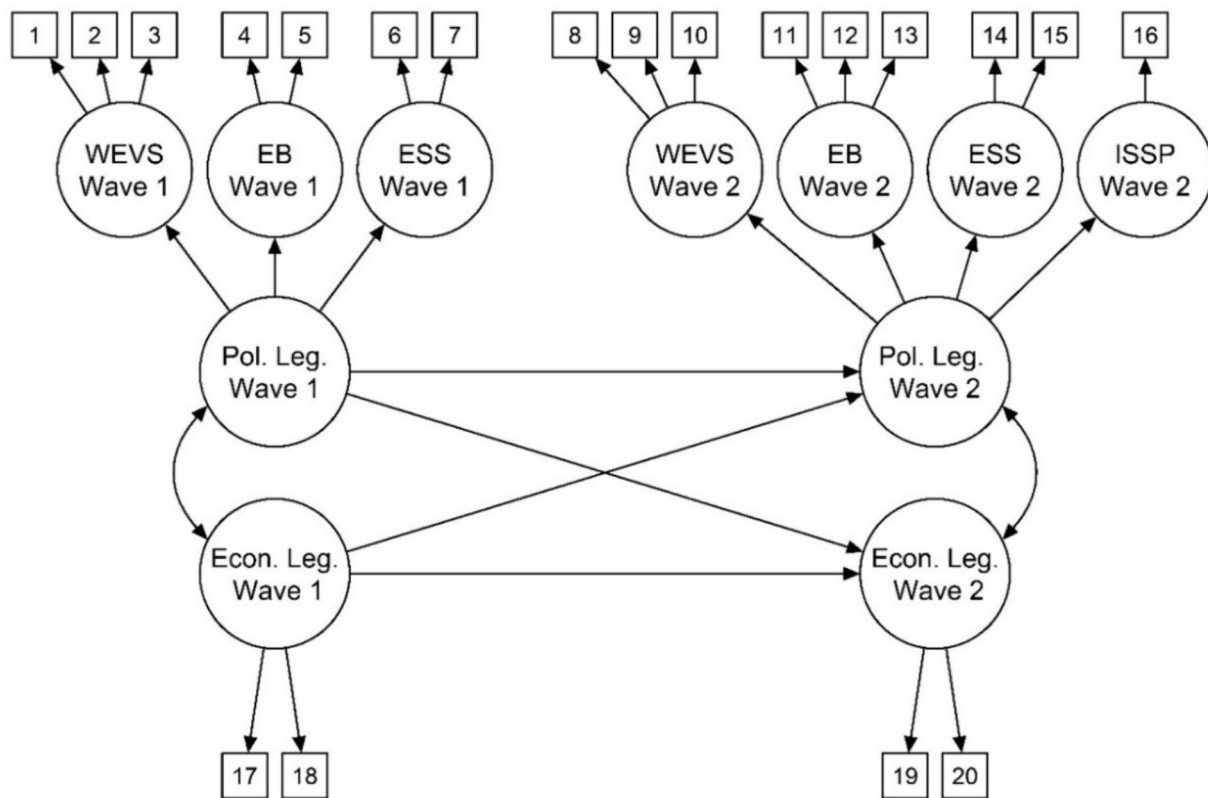


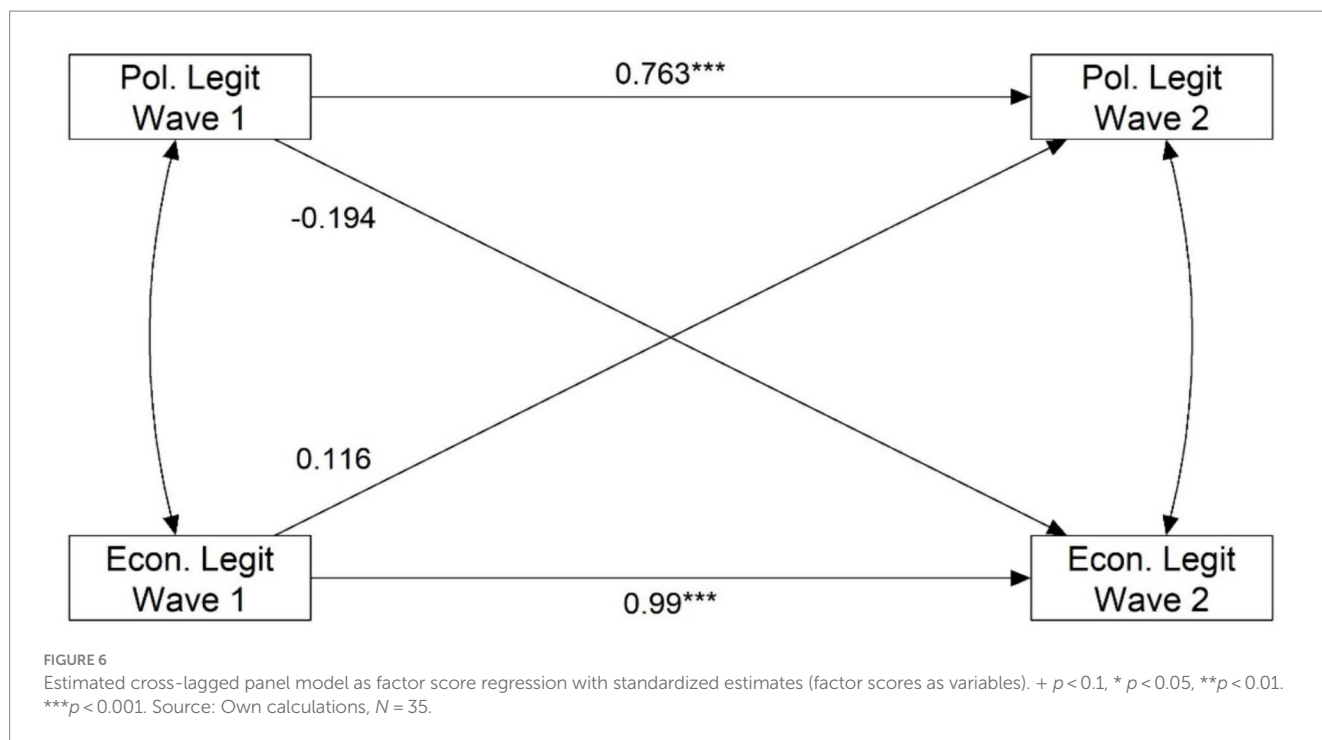
FIGURE 5 Adjusted theoretical model with second-order factors for political legitimacy (measurement model and structural model incorporated).

is negative: higher levels of political legitimacy undermine economic legitimacy. The results lead to the rejection of the three hypotheses, as they all hypothesized a positive effect between political legitimacy and economic legitimacy.

Despite the rejection of the formulated hypotheses of the study, several new insights could be gained from it. First, the results indicate that political institutions may have primacy above economic institutions. This is not only indicated by the fact that only the effect of political legitimacy on economic legitimacy was significant (and not vice versa) but also by the fact that the moment the effect of political legitimacy was controlled for in the cross-lagged model; the level of economic legitimacy reflected a high degree of stability. Second, political legitimacy and economic legitimacy also differed in their temporal stability. Economic legitimacy exhibited a high stability, whereas more fluctuation could be identified for political legitimacy. A potential explanation could be that political legitimacy is more strongly connected to incumbents of institutions than expected, and while the fluctuation of actors in the economic subsystem is less transparent, the actors are more visible in case of political institutions (and are also more likely to change over time). Third, the negative effect between political legitimacy on economic legitimacy is intriguing, but it can also be considered insightful. The negative effect might be connected to the content and focus of political campaigns. Political rhetoric and election campaigns often focus on discussing reduction of rising income inequalities. One trusts the political institution to tackle unacceptable levels of income inequality. To delve into this topic, however, it should be considered how the structure of the government in the countries investigated affects economic legitimacy and how it interacts

with the effect of political legitimacy. The negative effect also points to potential explanations as to why populist parties can maintain high support rates and why involvement in corruption and decrease in political legitimacy do not automatically destabilize countries. Finally, while there is indication of a causal relationship, it would still be worthwhile to explore congruency and discrepancy between political legitimacy and economic legitimacy in the same wave.

These results should be cautiously interpreted, as the data quality of the compiled dataset is low, and they need to be further validated. While the study has provided some working definitions for the concepts of political legitimacy and economic legitimacy, it is clear that both the concepts need to be dealt with in more detail and that more clarity is needed. Methodologically, the study has several caveats and there is room for improvement in future studies. First, the country coverage is biased, as primarily European countries were included in the analysis due to data availability. Hence, the results should not be generalized on a global scale. The scope of primary sources could be expanded to tackle this issue. Second, the cross-lagged model was very basic; neither confounder nor moderators were considered, as this reaches beyond the scope of the study. Theoretically and methodologically, we can expect external structural and cultural factors to mitigate the level and effect of political legitimacy and economic legitimacy. Third, directly connected to this, the study did not address the question of whether the same mechanisms are to be expected in democratic and authoritarian regimes. Future studies could potentially elaborate on this in more detail. Fourth, the definition of the two waves could have potentially also compromised the results: different temporal



cutoff points for the different waves could have been considered to test the robustness of the results. Fifth, in the current solution, a very simplistic aggregation method is employed to access country-level values. Different aggregation techniques could also be employed, to test the robustness of the results. Sixth, the indicator selection for economic legitimacy should be reviewed and potentially expanded. Seventh, and closely linked to the previous point, the employed operationalization and the indicators selected to measure political and economic legitimacy correspond to a narrow slice of their respective subsystems. Another future direction is to identify for which subsystems should legitimacy should be measured (to give a more complete picture of system legitimacy).

Beyond the limitations of the empirical analysis, the current study was quick to narrow its focus on the empirical connection between subjective political legitimacy and subjective economic legitimacy. It avoided (partially due to space limitations) discussing the question of what happens to the connection of political and economic legitimacy if the distinction of normative and subjective legitimacy is conceptually established. This caveat is another gap that could be potentially explored in future research. In short, more clarity is needed regarding how to bring normative and subjective concepts of legitimacy under one roof—both theoretically and empirically—and what implications it has for the connection between political and economic legitimacy. Approaches carrying the issue of duality further should consider the concepts of political legitimacy and economic legitimacy as a whole when the normative and subjective aspects are considered at the same time for each subsystem. Hence, the connection of political and economic legitimacy transcends the question of duality. Approaches honoring less the duality of the legitimacy concepts might yield to solutions when the connection between normative political legitimacy and normative economic legitimacy is dealt with separately from the

connection between subjective political legitimacy and subjective economic legitimacy.

Overall, the current study merely scratches the surface of potential directions for future research and is only a very first attempt to analyze the relationship between political legitimacy and economic legitimacy. While the empirical results should be cautiously interpreted, the study opens new research avenues for future scholarly endeavors.

Data availability statement

The country-level dataset was compiled from data sources publicly available. Information about the data sources, and the code to compile the country-level dataset is available in the [Supplementary material](#). Further inquiries can be directed to the author.

Ethics statement

Ethical approval was not required for the study involving humans in accordance with the local legislation and institutional requirements. Written informed consent to participate in this study was not required from the participants or the participants' legal guardians/next of kin in accordance with the national legislation and the institutional requirements.

Author contributions

ZI conceptualized the design of the study, organized the database, performed the statistical analysis, wrote the first draft of the manuscript, and then read, revised, and approved the submitted version.

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Supplementary material

The Supplementary material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fpos.2024.1198295/full#supplementary-material>

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