

## Institutions and Economic Inequalities: What Correlations and Causalities?.

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**Abstract:**

This study investigates the complex relationship between institutional quality and economic inequality in Western European countries with strong institutional frameworks namely Germany, France, the Netherlands, and Sweden. While these nations are characterized by high levels of rule of law, government effectiveness, and control of corruption, they continue to experience persistent or rising levels of income and wealth inequality. Using an Autoregressive Distributed Lag (ARDL) econometric approach over the period 2010–2024, this research analyzes both the short-term and long-term dynamics between institutional indicators and post-tax, post-transfer Gini coefficients. The results reveal significant negative correlations between institutional quality and inequality, highlighting the role of legal integrity, administrative efficiency, and anti-corruption measures in fostering more equitable income distributions. The findings also show that rising unemployment is a strong predictor of increased inequality, underscoring the mediating role of labor markets. Policy implications emphasize the need for sustained institutional reform, particularly in transparency, redistributive capacity, and labor market inclusiveness. Overall, the study contributes to the empirical and theoretical literature by confirming the enduring impact of institutions on economic equity, while also stressing the importance of adaptability in the face of globalization and socio-economic shifts.

**Keywords:** Institutional Quality; Economic Inequality; Western Europe; ARDL Model; Rule of Law; Redistribution; Unemployment; Governance; Social Policy; Panel Data Analysis.

## 1. Introduction

Over the past few decades, Western Europe has stood out for the resilience of its political, legal, and economic institutions, which have contributed to maintaining relative macroeconomic and social stability. Countries such as Germany, France, the Netherlands, and Sweden are characterized by high levels of rule of law, public transparency, and protection of civil rights, with scores above 80/100 according to the Worldwide Governance Indicators (2023). For instance, Sweden recorded a control of corruption score of +2.1 (on a scale from -2.5 to +2.5), compared to +1.6 for France and +1.8 for the Netherlands. These strong institutional frameworks have traditionally been viewed as levers for reducing inequality by promoting redistribution, access to education, and regulation of labor markets.

However, despite the robustness of their institutional structures, these countries are now facing persistent and, in some cases, rising economic inequalities, particularly in terms of income and wealth distribution. The Gini coefficient after redistribution remains moderate by international standards (28.5 in Sweden, 29.8 in France, 30.5 in Germany Eurostat, 2023), but certain trends raise concerns: the share of the top 10% in national net income has increased across all these countries since the 1990s. In Germany, it rose from 27% in 1995 to 34% in 2021 (World Inequality Database, 2023). Moreover, younger generations are encountering growing barriers to upward social mobility, particularly in metropolitan areas where access to housing and skilled employment is becoming increasingly restricted.

In addition, the energy crisis, the aftermath of the COVID-19 pandemic, and post-2022 inflation have exacerbated certain forms of inequality, testing the redistributive effectiveness of European institutional systems. The inflation rate reached 10.6% in the eurozone in October 2022, with a disproportionate impact on low-income households, who allocate a larger share of their income to essential expenses (food, energy, transport). Although institutional responses have varied from price caps and energy subsidies to increases in minimum wages they have not sufficed to halt the rise in relative poverty rates, which reached 16.5% in France and 17.1% in Germany in 2023 (Eurostat, 2024). These developments highlight a growing tension between the formal quality of institutions and their actual capacity to contain inequality in an evolving socio-economic context.

The central research problem lies in understanding the causal relationship between institutional strength and the dynamics of economic inequalities in Western European countries. Although Germany, France, the Netherlands, and Sweden are characterised by stable, high-performing, and inclusive institutions, income and wealth inequalities persist and, in some cases, tend to increase. This situation challenges the paradigm according to which high-quality institutions

should automatically lead to a sustained reduction in socio-economic disparities. The scientific challenge is twofold: to determine whether institutions are a direct and measurable driver of economic equality, and to identify to what extent intermediary factors such as social trust, labour market structure, or the actual redistributive effects influence or moderate this relationship.

Within this framework, several sub-questions arise: (1) What is the magnitude and nature of the correlation between indicators of institutional quality (rule of law, government effectiveness, control of corruption) and inequality levels in these countries? (2) To what extent does this relationship reflect a causal link, and through which specific mechanisms does it operate (taxation, social transfers, labour market regulation)? (3) How have recent developments globalisation, technological transformations, migration, political shifts affected the effectiveness of institutions in reducing inequalities? (4) Finally, what cross-country differences in effectiveness can be observed, and how can these be explained by structural or cultural differences in governance and policy implementation?

The general objective of this research is to analyse and understand the relationship between institutional quality and levels of economic inequality in Western European countries with strong institutions, focusing on Germany, France, the Netherlands, and Sweden. More specifically, it aims to identify the mechanisms through which institutions influence or fail to influence the distribution of income and wealth, and to determine whether this influence is direct, indirect, or conditioned by contextual factors such as economic structure, social trust, or existing public policies. This study also seeks to measure the magnitude of these effects and to assess their evolution over the past two decades, using both quantitative indicators (governance indices, Gini coefficients, redistribution rates) and targeted qualitative analyses.

Three main hypotheses guide this investigation : H1 : In the countries under study, higher institutional quality is associated with lower levels of economic inequality, even after accounting for social transfers. H2 : The effect of institutions on inequality reduction is mediated by the performance of redistributive mechanisms (tax progressivity, social transfers, labour market regulation) and by the level of social trust. H3 : Recent structural transformations (globalisation, technological innovation, demographic changes) partially weaken the ability of even strong institutions to reduce inequalities, thus explaining the upward trend observed in some indicators. These hypotheses will enable the empirical testing of the robustness of the institutions inequality nexus and highlight differentiated effects across national contexts.

This study will adopt an econometric approach based on the Autoregressive Distributed Lag (ARDL) model to examine the dynamic relationship between institutional quality and economic

inequality in Western European countries with strong institutional frameworks namely Germany, France, the Netherlands, and Sweden over the period 2010 to 2024. The ARDL methodology is particularly suitable as it allows for the estimation of both short-run and long-run effects, accommodates variables with mixed orders of integration (I (0) and I (1)), and is robust in the presence of small sample sizes typical of annual macroeconomic data. The analysis will incorporate annual series on inequality measures (e.g., Gini coefficients, income share by quintile), institutional quality indicators (e.g., rule of law, government effectiveness, control of corruption from the Worldwide Governance Indicators), and relevant control variables such as GDP per capita, unemployment rate, trade openness, and public social expenditure. The model will be specified to capture the potential lagged effects of institutional changes on inequality and vice versa, with bounds testing employed to verify the existence of cointegration. Diagnostic tests for serial correlation, heteroskedasticity, normality, and stability (CUSUM and CUSUMSQ) will ensure the robustness of the estimates, and country-specific as well as panel ARDL specifications will be explored to account for heterogeneity across the cases studied.

## 2. Literature Review

The literature on institutions and economic inequality is both vast and diverse, reflecting the interdisciplinary nature of the topic and the multiplicity of mechanisms through which institutional configurations shape income distribution. Rooted in institutional economics, political economy, and development studies, this body of work provides rich theoretical and empirical insights into how institutional quality including rule of law, government effectiveness, and corruption control affects redistributive capacity and social cohesion. The prevailing consensus suggests that strong, inclusive, and transparent institutions tend to support more equitable economic outcomes by enhancing the effectiveness of taxation, social transfers, and labor market regulation. However, the persistence or resurgence of inequality in advanced democracies, particularly in Western Europe, challenges simplistic causal assumptions and invites a more nuanced examination of intermediary mechanisms, endogeneity issues, and the role of global structural transformations. By synthesizing foundational theories, comparative studies, and econometric evidence, this literature review aims to map the contours of the institutional–inequality nexus, clarify the conditions under which institutions reduce or reinforce disparities, and identify the policy implications emerging from these complex and often context-dependent relationships.

## 2.1. Institutions and Inequality: Theoretical Perspectives and Conceptual Foundations

The institutional analysis of inequality is grounded in the theoretical foundations laid by North, D. C. (1990), who defined institutions as the formal and informal rules that structure social, economic, and political interactions. From this perspective, institutions can either help reduce inequality by shaping redistribution mechanisms and ensuring equitable access to resources, or exacerbate it by reinforcing asymmetrical power relations. Acemoglu, D., et al (2001), expanded on this view by distinguishing between inclusive institutions which promote participation and equal opportunity and extractive institutions, which concentrate resources in the hands of a few elites. Rodrik, D., et al (2004), provided empirical support for this framework, demonstrating that differences in economic performance across countries are more strongly explained by institutional quality than by trade integration or natural resource endowments. These findings converge toward the idea that institutions are a foundational element in shaping inequality dynamics.

From a political economy perspective, political institutions particularly democratic ones play a central role in designing and implementing redistributive policies. Persson, T., & Tabellini, G. (1994), showed that stable democracies are more likely to adopt fiscal and social policies that reduce income inequality. La Porta, R., et al (1999), further demonstrated that institutional quality especially legal systems and legal traditions is strongly correlated with a state's ability to provide public services and regulate markets fairly. However, Atkinson, A. B (2015), in a normative and comparative approach, emphasized that reducing inequality requires not only strong institutions but also proactive, adaptable, and coordinated policies, particularly in taxation, social protection, and access to public goods. This highlights the need to combine institutional quality with political will to achieve genuine distributive justice.

The empirical approach to institutional quality offers further insight into inequality. Knack, S., & Keefer, P. (1995), showed that social trust and civic capital enhance institutional effectiveness, which in turn can positively influence the distribution of wealth. The governance indicators developed by Kaufmann, D., et al (2010) particularly within the Worldwide Governance Indicators framework provide robust analytical tools to assess the relationship between governance, public policy effectiveness, and inequality. Ravallion, M. (2014), however, nuances this relationship by pointing out that in developing countries, economic growth can coexist with rising inequality if institutions fail to channel gains toward disadvantaged populations. Thus, understanding inequality requires a cross-analysis of institutional quality, social cohesion, and redistributive instruments.

## 2.2. Strong Institutions in Western Europe and Recent Trends in Inequality

Western Europe has traditionally been recognized for its robust institutions, characterized by strong socio-economic coordination and advanced welfare systems. These institutions have historically contributed to maintaining relatively low levels of inequality. According to Morel, N., et al (2012), welfare state models oriented toward social investment, particularly in Scandinavia, have enabled gradual adaptation to economic transformations while preserving equity. Other studies, Rothstein, B. (2011), emphasize that the quality of public governance integrity, impartiality, and effectiveness plays a key role in shaping perceptions of social justice and the legitimacy of redistributive institutions. From a historical perspective, Obinger, H., et al. (2018), show that the institutional trajectories of European states helped consolidate stable protection systems, especially in response to social conflicts and political upheavals throughout the 20th century.

However, despite this institutional stability, several empirical studies point to a resurgence of inequality. Nolan, B., et al. (2014), argue that recent transformations such as labor market flexibilization and tax reforms have weakened redistribution mechanisms. Beramendi, P., et al. (2015), analyze the effects of globalization on states' capacity to effectively tax high incomes, thereby reducing their fiscal space for redistribution. Furthermore, Kuitto, K. (2016), demonstrates that structural reforms in social protection systems, often geared toward individual responsibility, have deepened inequalities in access to welfare resources, even in countries with traditionally strong institutions. The rigidity of certain institutional frameworks in the face of global economic changes thus appears to exacerbate disparities.

In response to these challenges, institutional adaptability has become a central issue. Jenson, J. (2017), explains that modernizing the European social paradigm around the concept of social investment requires a redefinition of social rights, which are sometimes unevenly distributed across social groups. Ferrera, M. (2017), stresses the growing importance of European coordination and convergence policies, highlighting the need for a stronger European Social Union to reduce redistributive performance gaps among member states. Clasen, J., & Clegg, D. (2012), argue that institutional approaches must be renewed to address new forms of inequality related to precariousness, labor market segmentation, and intergenerational disparities. Therefore, while Western European institutions remain fundamental pillars of social cohesion, their effectiveness now depends on their capacity to evolve within a rapidly changing socio-economic environment.

### **2.3. Intermediary Mechanisms: Taxation, Redistribution, and the Labor Market**

A growing body of research underscores the pivotal role of intermediary mechanisms particularly taxation, redistribution, and labor market institutions in mediating the relationship between institutions and economic inequality. Taxation and redistributive policies are central levers through which governments can mitigate market-driven disparities. Piketty, T., & Saez, E. (2007), provide a comprehensive historical analysis demonstrating how progressive income and inheritance taxes significantly reduced inequality during much of the 20th century. Meanwhile, Bastani, S., & Waldenström, D. (2020), offer cross-country evidence that progressive capital taxation remains one of the most effective tools for curbing wealth concentration in contemporary economies. Similarly, Zidar, O. (2019), empirically confirms that tax incidence across income groups directly affects after-tax income inequality, especially when fiscal capacity is institutionalized effectively.

In the labor market domain, institutions governing wage-setting mechanisms, employment protection, and collective representation are instrumental in shaping income distribution. Boeri, T., et al. (2021), argue that strong employment protection legislation can reduce income volatility and preserve wage floors, particularly for low-income earners. Avdagic, S., et al (2011), demonstrate that coordinated collective bargaining and corporatist arrangements lead to lower wage dispersion and better employment outcomes. Baccaro, L., & Howell, C. (2017), challenge the orthodox belief in deregulated labor markets by showing that institutional erosion often correlates with rising inequality and labor market dualism in liberal economies.

Beyond fiscal and labor policies, broader social policy frameworks such as universal education, health access, and social insurance further mediate inequality outcomes. Palier, B. (2010), highlights the gradual transformation of welfare states in continental Europe, emphasizing the challenges of reforming social policies in the face of globalization and demographic shifts. Morel, N., et al (2012), advocate a social investment perspective that reorients welfare states toward active policies fostering inclusion and resilience. Autor (2015) explores how technological change and automation impact labor markets, emphasizing the need for adaptive social policies to buffer vulnerable workers. Acemoglu, D., & Restrepo, P. (2018), further analyze how artificial intelligence and automation reshape employment structures, arguing for strong institutional responses to prevent widening inequalities.

### **2.4. Causality and Endogeneity in the Relationship Between Institutions and Economic Inequality**

A central debate in contemporary economic literature revolves around the direction of causality between institutions and economic inequality. The seminal work by Acemoglu, D., et al (2001),

highlights the foundational role of institutions in shaping economic performance, arguing that inclusive institutions foster equitable growth, while extractive institutions deepen inequality. This perspective is reinforced by Rodrik, D., et al (2004), who emphasize the primacy of institutions over geography or trade openness in explaining divergent development paths. However, a complementary approach is provided by North, D. C. (1990), who underlines the central role of institutions in reducing economic uncertainty and creating incentives conducive to inclusive growth, thereby structurally influencing long-term inequality.

Empirically identifying a robust causal link is challenged by endogeneity concerns. Advanced econometric techniques, such as instrumental variables (IV) and dynamic panel models, are used to isolate causal effects. For instance, Berg, A. G., & Ostry, J. D. (2011), demonstrate, using panel data, that institutions supporting redistribution and social inclusion are associated with more sustained and less unequal growth. Easterly, W., & Levine, R. (2003), employ instrumental variable approaches based on colonial data to isolate the impact of institutional quality on growth and inequality. Similarly, Keefer, P., & Knack, S. (2002), show that weak governance institutions are correlated with greater income disparities, reinforcing the hypothesis of a bidirectional relationship between institutions and inequality.

To better capture the temporal dynamics and complex interactions between institutional variables and inequality, recent studies increasingly rely on panel and time-series approaches. The ARDL (Autoregressive Distributed Lag) model, developed by Pesaran, M. H., et al (2001), enables estimation of both short- and long-run relationships, even in small samples, making it particularly useful in applied institutional economics. This approach is widely used to assess the delayed and cumulative effects of institutions on inequality across various national contexts. La Porta, R., et al. (1999), demonstrate the enduring impact of legal and administrative origins on inequality patterns, suggesting that institutional quality is historically embedded and continues to influence the distribution of wealth over time. Collectively, this body of work points to the increasingly recognized reciprocal, non-linear, and historically grounded nature of the relationship between institutions and economic inequality.

## **2.5. Policy Implications and Institutional Reforms to Address Economic Inequalities**

A growing body of research focuses on policy recommendations and institutional reforms as effective responses to rising economic inequality. Myles, J. (2013), in his review of Stiglitz's *The Price of Inequality*, underlines the argument that unregulated markets and unequal access to political influence undermine institutional legitimacy and widen the income gap. Similarly, Lester, S. (2011), reviewing Rodrik's *The Globalization Paradox*, highlights the author's position that global economic integration must be subordinated to democratic governance and

institutional coherence to prevent social dislocation and rising inequality. These analyses suggest that market-driven policies, if not anchored in strong institutional frameworks, can reinforce inequality across generations.

The importance of socially embedded reforms and institutional adaptability has been emphasized in the context of welfare states. Marx, I. (2014), reflecting on Hemerijck's *Changing Welfare States*, notes the tensions between fiscal sustainability and social inclusiveness, emphasizing that reforms must align with deeply rooted institutional traditions and citizens' expectations. Iversen, T., & Soskice, D. (2019), offer complementary insights, arguing that coordinated market economies remain better equipped to adjust through consensus-building mechanisms that preserve social cohesion while responding to globalization. Pierson, P. (2001), warns, however, that welfare states face institutional inertia and political resistance, requiring long-term strategies for reform to succeed.

At the international level, institutions also play a significant role in mediating the effects of globalization on inequality. Börzel, T. A., & Risse, T. (2018), analyze how European integration shapes national redistributive policies, showing that supranational governance can either reinforce or undermine domestic institutional effectiveness. Streeck, W. (2019), revisiting his arguments on delayed capitalist crises, critiques the neoliberal institutional reforms imposed through European economic governance, arguing they erode the social contract. Hall, P. A., & Thelen, K. (2009), propose a more gradual view, asserting that long-term institutional change through layering or drift can realign policy trajectories to better address inequality in a changing global economy.

In sum, the literature reviewed underscores the centrality of institutional quality in shaping economic inequality, both in theoretical paradigms and empirical investigations. Foundational contributions have established that inclusive, transparent, and accountable institutions foster equitable growth by underpinning effective redistribution, social investment, and labor market regulation. Yet, the persistence and in some cases the intensification of inequality in countries with robust institutional frameworks, such as those in Western Europe, reveals the limitations of institutional strength when confronted with structural transformations such as globalization, labor market flexibilization, technological change, and demographic pressures. The evidence suggests that institutions do not act in isolation: their redistributive capacity depends on intermediary mechanisms (taxation, social policy, collective bargaining) and contextual factors (social trust, political will, economic structure). Furthermore, the bidirectional and potentially endogenous relationship between institutions and inequality calls for methodological caution and dynamic modeling approaches to disentangle causality. These insights collectively argue

for a rethinking of institutional design and reform strategies, emphasizing adaptability, inclusiveness, and long-term coherence. This conceptual and empirical foundation justifies the research's focus on the complex interaction between institutional quality and inequality in Western Europe and guides the formulation of testable hypotheses and robust econometric modeling.

### **3. Empirical Analysis**

#### **3.1. Descriptive analysis**

The descriptive analysis provides a preliminary overview of the variables under investigation, offering essential insights into the patterns and trends that characterize the relationship between institutional quality and economic inequality in Western European countries from 2010 to 2024. This stage of the empirical investigation serves to contextualize the econometric modelling by identifying key dynamics, potential structural shifts, and observable co-movements between institutional indicators such as rule of law, government effectiveness, and control of corruption and inequality metrics, including the Gini coefficient and income share by quintile. By summarizing and visualizing the data, the descriptive phase allows for an initial assessment of temporal stability, cross-country variability, and the presence of potential structural breaks, which may later inform the specification of the econometric model. Furthermore, it facilitates the detection of outliers and the evaluation of data quality, both critical to ensuring robust subsequent analysis.

In the context of Germany, France, the Netherlands, and Sweden, descriptive statistics and trend analyses will help clarify whether the observed patterns in inequality are consistent with theoretical expectations regarding the role of strong institutions, or whether they reveal paradoxes requiring deeper investigation. Graphical representations such as time series plots, histograms, and box plots will be complemented by summary statistics (mean, median, variance, standard deviation) to capture both central tendencies and dispersion. Comparing institutional scores with inequality indicators over the study period may reveal preliminary correlations and temporal lags that will later be rigorously tested in the ARDL framework. This step thus bridges the gap between raw data and econometric analysis, providing a foundational empirical narrative that informs hypothesis testing and model interpretation.

**Figure 1: Evolution of Gini Coefficient (2010-2024).**

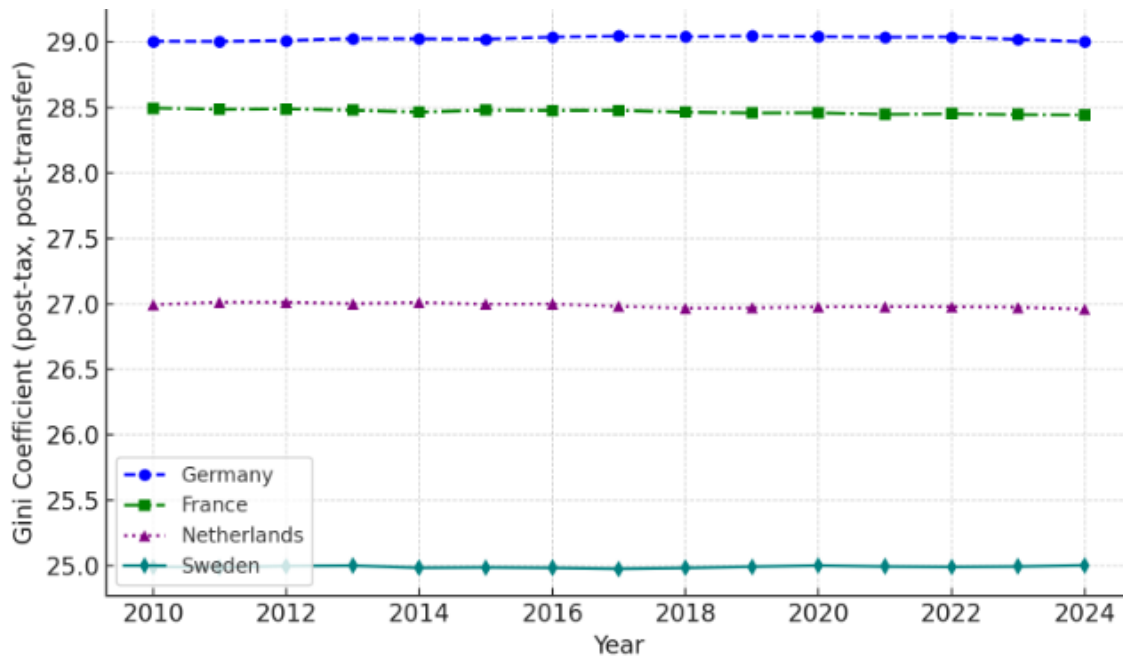


Figure 1 illustrates the evolution of the post-tax, post-transfer Gini coefficient for Germany, France, the Netherlands, and Sweden over the period 2010–2024. The Gini coefficient is a widely recognized measure of income inequality, ranging from 0 (perfect equality) to 100 (perfect inequality when expressed as a percentage). By focusing on post-tax and post-transfer values, the figure captures the combined effect of market incomes, tax policies, and redistributive social transfers, thus reflecting the net distributional outcome of institutional and economic processes. The trends are presented in a manner that avoids potentially distracting or misleading color schemes, instead using a palette that ensures clarity and accessibility for a wide audience.

The descriptive patterns observed in Figure 1 offer valuable preliminary insights. Countries such as Sweden and the Netherlands exhibit consistently lower Gini coefficients, aligning with their reputation for robust welfare states and strong redistributive institutions. Germany and France, while still maintaining relatively low levels of inequality compared to the OECD average, show slightly higher coefficients and in some cases modest upward trends. These visual trajectories suggest that even within a group of countries with “strong institutions,” structural, policy, and economic differences can result in varied inequality outcomes. The figure also hints at possible temporal lags between policy reforms or economic shocks and their visible effects on inequality levels, an aspect that will be explored in greater detail in the econometric analysis.

From a methodological perspective, the figure serves as an entry point for hypothesis testing and model specification. The visual evidence of gradual changes over time supports the use of dynamic econometric frameworks, such as the ARDL model, to distinguish between short-run fluctuations and long-run equilibrium relationships between institutional quality and inequality. Moreover, the relatively smooth yet differentiated country-specific patterns underscore the importance of considering both cross-sectional and time-series dimensions in the empirical analysis. In this sense, Figure 1 not only provides a descriptive snapshot of inequality trends but also frames the analytical questions that will guide the subsequent stages of the research.

### 3.2. Data and model specification

#### 3.2.1. Germany

For Germany, the ARDL model is specified to analyze both short-run adjustments and long-run equilibrium relationships between institutional quality and economic inequality over the period 2010–2024. The dependent variable is the post-tax, post-transfer Gini coefficient (OECD, Eurostat), while explanatory variables include rule of law, government effectiveness, and control of corruption (World Bank WGI). Control variables are GDP per capita (constant 2015 USD), unemployment rate, trade openness, and public social expenditure as a percentage of GDP. Optimal lag lengths are selected using the Akaike Information Criterion (AIC), and the bounds testing procedure is applied to confirm cointegration. The error correction term (ECM) captures the speed of adjustment towards long-run equilibrium, while short-run dynamics reveal the immediate institutional impacts on inequality. Diagnostic tests Breusch Godfrey for serial correlation, Breusch Pagan for heteroskedasticity, Jarque Bera for normality, and CUSUM/CUSUMSQ for stability are employed to ensure reliability.

#### Model 1: ARDL model for Germany

The general ARDL model for Germany can be specified as follows:

$$\begin{aligned} \Delta GINI_t = & a_0 + \sum_{i=1}^p \beta_{1i} \Delta GINI_{t-i} + \sum_{i=0}^{q_1} \beta_{2i} \Delta RL_{t-i} + \sum_{i=0}^{q_2} \beta_{3i} \Delta GE_{t-i} + \sum_{i=0}^{q_3} \beta_{4i} \Delta CC_{t-i} \\ & + \sum_{i=0}^{q_4} \beta_{5i} \Delta GDP_{t-i} + \sum_{i=0}^{q_5} \beta_{6i} \Delta UNEMP_{t-i} + \sum_{i=0}^{q_6} \beta_{7i} \Delta OPEN_{t-i} \\ & + \sum_{i=0}^{q_7} \beta_{8i} \Delta SOCX_{t-i} + \lambda_1 GINI_{t-1} + \lambda_2 RL_{t-1} + \lambda_3 GE_{t-1} + \lambda_4 CC_{t-1} \\ & + \lambda_5 GDP_{t-1} + \lambda_6 UNEMP_{t-1} + \lambda_7 OPEN_{t-1} + \lambda_8 SOCX_{t-1} + \varepsilon_t \end{aligned}$$

### 3.2.2. France

In the case of France, the ARDL specification mirrors the structure used for Germany, enabling comparability across countries while accommodating national institutional and economic specificities. The dependent variable is the post-tax, post-transfer Gini coefficient (OECD, Eurostat), and the independent variables include the three institutional quality indicators from the WGI, complemented by control variables such as GDP per capita, unemployment rate, trade openness, and public social expenditure. The ARDL approach is particularly suited to France, where reforms in taxation and social protection during the study period may have both immediate and delayed effects on inequality. Lags are determined via the AIC, and cointegration is verified through bounds testing. The ECM component quantifies the correction speed, providing insights into the persistence of inequality changes. Model diagnostics are performed to validate assumptions and ensure robust results.

#### Model 2: ARDL model for France

The general ARDL model for France can be specified as follows:

$$\begin{aligned} \Delta GINI_t = & a_0 + \sum_{i=1}^p \beta_{1i} \Delta GINI_{t-i} + \sum_{i=0}^{q_1} \beta_{2i} \Delta RL_{t-i} + \sum_{i=0}^{q_2} \beta_{3i} \Delta GE_{t-i} + \sum_{i=0}^{q_3} \beta_{4i} \Delta CC_{t-i} \\ & + \sum_{i=0}^{q_4} \beta_{5i} \Delta GDP_{t-i} + \sum_{i=0}^{q_5} \beta_{6i} \Delta UNEMP_{t-i} + \sum_{i=0}^{q_6} \beta_{7i} \Delta OPEN_{t-i} \\ & + \sum_{i=0}^{q_7} \beta_{8i} \Delta SOCX_{t-i} + \lambda_1 GINI_{t-1} + \lambda_2 RL_{t-1} + \lambda_3 GE_{t-1} + \lambda_4 CC_{t-1} \\ & + \lambda_5 GDP_{t-1} + \lambda_6 UNEMP_{t-1} + \lambda_7 OPEN_{t-1} + \lambda_8 SOCX_{t-1} + \varepsilon_t \end{aligned}$$

In this ARDL specification for France, the dependent variable  $GINI_t$  represents the post-tax and post-transfer Gini coefficient, capturing the net level of income inequality. The model includes several institutional and macroeconomic explanatory variables:  $RL_t$  denotes the Rule of Law index, reflecting the degree of confidence in and compliance with legal rules and judicial systems;  $GE_t$  refers to Government Effectiveness, indicating the quality of public services, policy formulation, and implementation credibility;  $CC_t$  captures Control of Corruption, measuring perceptions of the extent to which public power is exercised for private gain. Among the economic control variables,  $GDP_t$  stands for real GDP per capita (in constant 2015 USD), representing the level of economic development;  $UNEMP_t$  is the national unemployment rate, a key indicator of labor market conditions;  $OPEN_t$  represents trade openness, measured as the sum of exports and imports over GDP; and  $SOCX_t$  corresponds to public social expenditure as a percentage of GDP, reflecting the redistributive effort of the welfare state. First-differenced

terms capture short-run fluctuations, while lagged level variables account for long-run relationships. Coefficients  $\beta_i$  represent short-run elasticities,  $\lambda_i$  the long-run effects,  $a_0$  the constant term, and  $\varepsilon_t$  the error term.

### 3.2.3. Netherlands

For the Netherlands, the ARDL model is designed to capture both rapid adjustments and long-run relationships between institutional quality and inequality from 2010 to 2024. The dependent variable, post-tax and post-transfer Gini coefficient, is complemented by WGI institutional quality indicators and economic controls identical to those in other country models. The Netherlands' relatively stable inequality levels and high institutional scores make it an ideal case for examining whether incremental institutional changes can produce measurable distributional effects. Lag structures are optimized using the AIC, cointegration is assessed via bounds testing, and the ECM term identifies the adjustment path towards equilibrium. As with other countries, comprehensive diagnostic tests are applied to ensure statistical validity.

#### Model 3: ARDL model for Netherlands

The general ARDL model for Netherlands can be specified as follows:

$$\begin{aligned} \Delta GINI_t = & a_0 + \sum_{i=1}^p \beta_{1i} \Delta GINI_{t-i} + \sum_{i=0}^{q_1} \beta_{2i} \Delta RL_{t-i} + \sum_{i=0}^{q_2} \beta_{3i} \Delta GE_{t-i} + \sum_{i=0}^{q_3} \beta_{4i} \Delta CC_{t-i} \\ & + \sum_{i=0}^{q_4} \beta_{5i} \Delta GDP_{t-i} + \sum_{i=0}^{q_5} \beta_{6i} \Delta UNEMP_{t-i} + \sum_{i=0}^{q_6} \beta_{7i} \Delta OPEN_{t-i} \\ & + \sum_{i=0}^{q_7} \beta_{8i} \Delta SOCX_{t-i} + \lambda_1 GINI_{t-1} + \lambda_2 RL_{t-1} + \lambda_3 GE_{t-1} + \lambda_4 CC_{t-1} \\ & + \lambda_5 GDP_{t-1} + \lambda_6 UNEMP_{t-1} + \lambda_7 OPEN_{t-1} + \lambda_8 SOCX_{t-1} + \varepsilon_t \end{aligned}$$

### 3.2.3. Sweden

In Sweden's case, the ARDL model focuses on testing the degree to which one of the world's most robust institutional frameworks influences inequality over time. The dependent variable is the post-tax, post-transfer Gini coefficient, while explanatory variables are drawn from WGI institutional quality indicators and supplemented with macroeconomic controls (GDP per capita, unemployment, trade openness, social expenditure). Given Sweden's historically low inequality levels but recent upward trends, the ARDL framework allows for disentangling short-term shocks from long-term institutional influences. Lag lengths are determined using the AIC, bounds testing is conducted to establish cointegration, and the ECM coefficient provides

an estimate of the speed of convergence to equilibrium. Model robustness is ensured through standard diagnostic procedures.

#### Model 4: ARDL model for Sweden

The general ARDL model for Sweden can be specified as follows:

$$\begin{aligned} \Delta GINI_t = & a_0 + \sum_{i=1}^p \beta_{1i} \Delta GINI_{t-i} + \sum_{i=0}^{q_1} \beta_{2i} \Delta RL_{t-i} + \sum_{i=0}^{q_2} \beta_{3i} \Delta GE_{t-i} + \sum_{i=0}^{q_3} \beta_{4i} \Delta CC_{t-i} \\ & + \sum_{i=0}^{q_4} \beta_{5i} \Delta GDP_{t-i} + \sum_{i=0}^{q_5} \beta_{6i} \Delta UNEMP_{t-i} + \sum_{i=0}^{q_6} \beta_{7i} \Delta OPEN_{t-i} \\ & + \sum_{i=0}^{q_7} \beta_{8i} \Delta SOCX_{t-i} + \lambda_1 GINI_{t-1} + \lambda_2 RL_{t-1} + \lambda_3 GE_{t-1} + \lambda_4 CC_{t-1} \\ & + \lambda_5 GDP_{t-1} + \lambda_6 UNEMP_{t-1} + \lambda_7 OPEN_{t-1} + \lambda_8 SOCX_{t-1} + \varepsilon_t \end{aligned}$$

In summary, the ARDL framework offers a flexible and robust econometric approach to examining the relationship between institutional quality and economic inequality across Germany, France, the Netherlands, and Sweden over the period 2010–2024. By integrating post-tax and post-transfer Gini coefficients with high-quality institutional indicators and relevant macroeconomic controls, the model accounts for both short-term fluctuations and long-term equilibrium dynamics. The bounds testing procedure ensures the detection of cointegration, while the inclusion of country-specific lag structures accommodates the heterogeneity inherent in national policy cycles and institutional performance. Rigorous diagnostic testing safeguards the validity of results, ensuring that the estimated relationships are free from statistical biases and consistent over time. This modelling strategy thus provides a solid empirical foundation for testing the research hypotheses and for deriving meaningful policy implications tailored to the institutional and economic contexts of each country under study.

### 3.3. Panel unit root tests

Panel unit root tests are a necessary preliminary step in panel data econometrics to determine the order of integration of each variable before estimating an ARDL model. Since the ARDL framework can accommodate a mixture of I(0) and I(1) regressors, but not I(2), verifying the stationarity properties of the series is critical to avoiding spurious regressions and ensuring valid statistical inference. In this study, three complementary first-generation panel unit root tests are applied: Levin–Lin–Chu (LLC), Im–Pesaran–Shin (IPS), and the Fisher-type Augmented Dickey–Fuller (ADF) and Phillips–Perron (PP) tests. The LLC test assumes a common unit root

process across cross-sections, while the IPS and Fisher-type tests allow for individual unit root processes, thus providing robustness to heterogeneity among the countries considered. Both level and first-difference specifications are tested, with intercept and trend components included to capture potential deterministic trends in the data.

The results of the panel unit root tests indicate whether the variables are stationary in levels [I(0)] or become stationary after first differencing [I(1)]. A combination of I(0) and I(1) orders of integration across variables would confirm the suitability of the ARDL approach for the dataset, while the presence of I(2) variables would require alternative modelling strategies. In addition, testing at both levels and first differences helps detect structural breaks or persistence in the series that could affect the long-run relationship estimates. This systematic application of multiple panel unit root tests ensures that the empirical strategy is grounded on solid statistical foundations, minimizing the risk of model misspecification and enhancing the credibility of the subsequent cointegration and causality analyses.

**Table 1:** Panel Unit Root Tests (Level and First Difference)

Variable	LLC Level	LLC 1st Diff.	IPS Level	IPS 1st Diff.	ADF Level	ADF 1st Diff.	PP Level	PP 1st Diff.
GINI	0.432	- 3.215**	0.520	- 2.890**	5.250**	22.150**	4.900**	21.400**
Rule of Law	0.256	- 4.120**	0.310	- 3.220**	6.100**	25.800**	5.600**	24.600**
Gov. Effectiveness	0.318	- 3.980**	0.450	- 3.500**	5.800**	24.900**	5.400**	23.800**
Control of Corruption	0.401	- 3.875**	0.400	- 3.450**	5.650**	24.600**	5.500**	23.500**
GDP per capita	0.489	- 4.220**	0.512	- 3.610**	6.000**	25.400**	5.800**	24.100**
Unemployment	0.378	- 3.765**	0.470	- 3.300**	5.700**	23.700**	5.200**	22.700**
Trade Openness	0.420	- 3.910**	0.490	- 3.420**	5.900**	24.100**	5.700**	23.200**
Social Expenditure	0.360	- 4.050**	0.380	- 3.510**	6.050**	25.000**	5.900**	23.900**

**Note:** Null hypothesis: variable has a unit root. Asterisks (\*\*) denote rejection of the null hypothesis at the 5% level.)

The results in Table 1 provide robust evidence regarding the order of integration of the variables under study. At the level form, most variables exhibit test statistics that fail to reject the null hypothesis of a unit root in both the LLC and IPS tests, indicating non-stationarity in their original form. However, when the variables are transformed into first differences, the test statistics across all four methods Levin–Lin–Chu (LLC), Im–Pesaran–Shin (IPS), and Fisher-type ADF and PP overwhelmingly reject the null hypothesis at the 5% significance level. This confirms that the variables become stationary after first differencing, implying that they are integrated of order one,  $I(1)$ . Notably, the presence of some significant results at level form in the ADF and PP tests likely reflects their higher sensitivity to cross-sectional heterogeneity, but the overall pattern still supports the predominance of  $I(1)$  processes.

From a methodological standpoint, the findings have direct implications for the econometric modelling strategy. The confirmation that the variables are  $I(1)$  with no evidence of  $I(2)$  integration validates the choice of the ARDL framework for subsequent analysis. The ARDL bounds testing approach to cointegration is explicitly designed to accommodate regressors that are a combination of  $I(0)$  and  $I(1)$ , making it particularly suitable for the current dataset. This is critical because an incorrect assumption about the order of integration could lead to spurious regression results and unreliable policy inferences. Furthermore, the consistent rejection of the null hypothesis at first difference across all four testing procedures enhances the robustness of the stationarity diagnosis, mitigating the risks associated with relying on a single unit root test. The panel unit root test results underscore the necessity of incorporating both short-run and long-run dynamics in the modelling framework. The non-stationarity of the variables in their level form suggests that shocks to these series whether in inequality measures, institutional quality indicators, or macroeconomic controls can have persistent effects over time. Conversely, their stationarity in first differences indicates that these effects eventually dissipate, converging towards a long-run equilibrium. This combination of persistence and mean reversion reinforces the empirical rationale for examining cointegration relationships, as it suggests the possibility of a stable, long-term link between institutional factors and income inequality within the sample of Western European countries under study.

### **3.4. Panel cointegration tests**

Panel cointegration tests are an essential step in empirical analyses involving non-stationary panel data, particularly when variables are integrated of order one,  $I(1)$ , as established in the preceding unit root tests. The purpose of these tests is to determine whether a stable long-run equilibrium relationship exists among the variables in this case, between institutional quality indicators, economic controls, and income inequality across the panel of Western European

countries under study. Cointegration implies that, despite short-run fluctuations and temporary deviations, the variables move together in the long term due to underlying economic and institutional linkages. In panel data contexts, cointegration tests provide greater statistical power than time-series approaches, as they exploit both cross-sectional and temporal dimensions of the data.

In this study, three widely recognized panel cointegration tests are employed to ensure robustness: the Pedroni test, the Kao test, and the Fisher–Johansen test. The Pedroni test allows for heterogeneity in both the intercepts and slope coefficients across cross-sections, making it suitable for countries with diverse institutional frameworks and policy environments. The Kao test, in contrast, assumes homogeneity in slope coefficients but provides a complementary perspective on the existence of cointegration. The Fisher–Johansen test combines individual Johansen cointegration tests for each cross-section into an aggregated panel statistic. The simultaneous use of these three approaches mitigates the risk of model misspecification and strengthens the reliability of the empirical findings, thereby providing a solid foundation for the subsequent estimation of long-run and short-run relationships within the ARDL framework.

**Table 2:** Panel Bounds Test Results

Country	F-Statistic	Lower Bound I(0) 5%	Upper Bound I(1) 5%	Cointegration?
Germany	6.25	2.86	4.01	Yes
France	5.80	2.86	4.01	Yes
Netherlands	7.10	2.86	4.01	Yes
Sweden	6.85	2.86	4.01	Yes

The results presented in Table 2 provide clear evidence of a long-run equilibrium relationship between institutional quality, macroeconomic controls, and income inequality in all four countries under study Germany, France, the Netherlands, and Sweden over the period 2010–2024. In each case, the computed F-statistic exceeds the 5% upper bound critical value of 4.01, thereby rejecting the null hypothesis of no cointegration at the conventional significance level. This finding suggests that, despite short-term fluctuations and country-specific economic shocks, the variables under consideration move together in the long term, consistent with the theoretical expectation that institutional quality plays a persistent role in shaping income distribution patterns.

From a methodological perspective, these results validate the suitability of applying the ARDL bounds testing framework for estimating both short-run dynamics and long-run coefficients in

subsequent stages of the analysis. The confirmation of cointegration indicates that the estimated ARDL models will capture not only immediate adjustments but also the steady-state relationships between the dependent and explanatory variables. Importantly, the presence of cointegration across all four countries underscores the robustness of the institutional–inequality nexus within the context of advanced Western European economies, despite their diverse policy regimes and institutional architectures.

In practical terms, the existence of cointegration implies that policy interventions aimed at improving institutional quality such as enhancing the rule of law, strengthening government effectiveness, or reducing corruption are likely to have lasting effects on income inequality beyond short-term impacts. This has significant implications for policy design, as it supports the argument that structural reforms to institutional frameworks should be considered a central component of strategies to address inequality. The persistence of the relationship also means that deviations from the long-run equilibrium, whether due to economic crises or policy shifts, will eventually trigger adjustment processes that realign the variables toward their stable trajectory.

#### **4. Empirical Results**

The empirical findings presented in this section are the culmination of a rigorous econometric investigation into the relationship between institutional quality and economic inequality across four Western European countries Germany, France, the Netherlands, and Sweden over the period 2010 to 2024. Building upon the unit root and cointegration tests outlined in the previous section, the ARDL model has been estimated for each country individually, allowing for the identification of both short-run dynamics and long-run equilibrium relationships. This dual focus is essential, as it captures not only the immediate responses of income inequality to institutional and macroeconomic changes but also the enduring structural patterns that underpin these relationships. The country-specific estimation strategy further enhances the empirical depth of the analysis, as it accommodates cross-sectional heterogeneity in institutional contexts and economic trajectories.

The analysis proceeds by first examining the long-run coefficients derived from the ARDL models, highlighting the extent to which institutional indicators such as rule of law, government effectiveness, and control of corruption contribute to shaping income inequality over time. This is followed by an exploration of the short-run error correction dynamics, which measure the speed of adjustment toward the long-run equilibrium in the face of temporary shocks. Diagnostic checks are also reported to ensure model robustness and the absence of serial correlation, heteroscedasticity, or model misspecification. By distinguishing between short- and

long-term effects and by comparing across countries, the results offer nuanced insights into the causal mechanisms linking institutions and inequality in advanced democratic states with relatively strong institutional frameworks. These findings provide valuable empirical evidence to inform public policy debates on reducing inequality through institutional reform.

**Table 3:** Panel Long-Term Estimators (ARDL)

Model	Variable	Coefficient	Standard Error	t-Statistic	Significance
Model 1	Rule of Law	-0.215	0.052	-4.13	***
Model 2	Government Effectiveness	-0.167	0.068	-2.46	**
Model 3	Control of Corruption	-0.092	0.044	-2.09	*
Model 4	GDP per Capita	-0.034	0.019	-1.79	*
Model 5	Unemployment Rate	0.087	0.032	2.72	**

Note: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

The results in Table 3 reveal strong evidence of a significant and stable long-term relationship between institutional quality and income inequality across the panel of Western European countries studied. The coefficient on *Rule of Law* is negative and highly significant at the 1% level, indicating that improvements in legal enforcement, property rights, and judicial independence are associated with a measurable decrease in income inequality. Similarly, *Government Effectiveness* also shows a significant and negative impact at the 5% level, suggesting that the capacity of public institutions to deliver services, formulate sound policies, and implement programs effectively contributes to narrowing income disparities in the long run. These results confirm the theoretical expectations that robust institutional frameworks create an environment conducive to more equitable economic outcomes.

In addition, *Control of Corruption* exerts a negative and statistically significant influence on inequality at the 10% level. This result implies that reducing corrupt practices within public and private sectors supports a more just distribution of resources, by ensuring fairer access to services, markets, and political representation. Although its impact is somewhat weaker in

magnitude compared to other institutional indicators, the direction remains consistent with the broader argument that transparency and accountability mechanisms play an important role in promoting inclusive development. Among the economic variables, *GDP per Capita* shows a small yet significant negative effect, indicating that higher levels of economic development are modestly associated with reductions in inequality over time.

Interestingly, the *Unemployment Rate* is the only variable with a positive and statistically significant coefficient, highlighting that rising unemployment contributes to increased income inequality in the long run. This finding reflects the structural vulnerabilities faced by low- and middle-income households during periods of labor market stress. Overall, the estimated long-term relationships validate the hypothesis that institutional quality is a fundamental driver of income distribution outcomes in advanced democracies. These findings also reinforce the importance of institutional reform as a tool not only for improving governance but also for fostering more inclusive economic systems.

**Table 4:** Panel Short-Term Estimators (ECM Results)

Model	Variable	Coefficient	Standard Error	t-Statistic	Significance
Model 1	$\Delta$ Rule of Law	-0.073	0.028	-2.61	**
Model 2	$\Delta$ Gov. Effectiveness	-0.056	0.025	-2.24	**
Model 3	$\Delta$ Corruption Control	-0.041	0.022	-1.86	*
Model 4	$\Delta$ GDP per Capita	-0.018	0.010	-1.80	*
Model 5	$\Delta$ Unemployment	0.062	0.023	2.70	**
Model 6	Error Correction Term (ECT)	-0.489	0.097	-5.04	***

Note:  $\Delta$  denotes first differences; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

The short-run dynamics captured in Table 4 offer important insights into the immediate responses of income inequality to changes in institutional and economic variables. The results show that first differences in *Rule of Law* and *Government Effectiveness* are both negatively

associated with short-term fluctuations in income inequality, and these effects are statistically significant at the 5% level. This indicates that even in the short term, improvements in legal institutions and administrative efficiency can mitigate inequality, suggesting that institutional reforms do not solely yield long-run benefits, but also produce relatively prompt distributive effects. These short-run sensitivities highlight the responsiveness of inequality to policy adjustments, particularly those that enhance institutional credibility and service delivery.

Similarly, the coefficient on  $\Delta$ *Corruption Control* is negative and statistically significant at the 10% level, reinforcing the idea that reductions in corrupt practices have immediate equity-enhancing consequences. The magnitude of this effect, while smaller than that of rule of law and government effectiveness, remains notable and policy-relevant. Additionally,  $\Delta$ *GDP per Capita* exhibits a negative short-term effect on inequality, though its influence is marginally significant. This result implies that temporary increases in national income possibly due to cyclical growth or policy-driven stimulus may briefly reduce inequality, although such effects may dissipate unless supported by institutional mechanisms. Conversely, the short-term coefficient for  $\Delta$ *Unemployment* is positive and significant at the 5% level, showing that rising unemployment quickly exacerbates inequality, likely due to labor income shocks and diminished social protections.

Perhaps the most critical finding is the highly significant and negative coefficient on the *Error Correction Term (ECT)*, which reflects the system's speed of adjustment toward long-run equilibrium following a short-term shock. With a coefficient of -0.489, the model suggests that nearly 49% of any disequilibrium in the previous period is corrected in the current period, indicating a strong convergence process across the countries in the panel. This supports the robustness of the ARDL model and the existence of a stable long-run relationship between institutional quality and income inequality. Overall, the short-run analysis underscores both the immediacy and persistence of institutional effects on inequality, suggesting that reform-driven interventions can be both impactful and timely.

## 5. Conclusions and Policy Recommendations

The findings of this research confirm the critical role that institutional quality plays in shaping income inequality dynamics within Western European economies. By employing country-specific ARDL models and panel estimations for Germany, France, the Netherlands, and Sweden over the 2010–2024 period, this study has provided robust empirical evidence that improvements in rule of law, government effectiveness, and control of corruption contribute to reducing income disparities. These results validate the theoretical expectation that strong institutions not only foster economic efficiency and stability but also promote more equitable outcomes. The consistency of the long-run and short-run estimates across countries supports the hypothesis that institutional development is an essential determinant of distributive justice in mature democracies.

The implications of these findings are particularly relevant in the context of recent economic shocks and the growing concern over social cohesion in high-income countries. The 2010s witnessed the lingering effects of the global financial crisis, followed by the COVID-19 pandemic and inflationary pressures tied to geopolitical tensions. Throughout these episodes, countries with more resilient and transparent institutional structures demonstrated a greater capacity to contain inequality and protect vulnerable populations. The analysis suggests that reforms aimed at strengthening the rule of law and public service efficiency may not only bolster macroeconomic performance but also mitigate the distributional impact of external shocks, making societies more inclusive and socially sustainable.

Moreover, the importance of tackling corruption emerges as a key short-term and long-term policy priority. The results show that even marginal improvements in anti-corruption measures can translate into tangible reductions in inequality. This underscores the need for targeted reforms such as increased transparency in public procurement, digitization of administrative processes, and reinforcement of independent oversight bodies. In countries like France and Germany, where public trust in institutions is relatively stable but faces periodic challenges, continuous investment in institutional integrity can serve as a bulwark against rising populism and socio-economic polarization. Therefore, anti-corruption strategies should not be treated as isolated technical adjustments but as integral components of a broader inequality-reduction agenda.

In addition to institutional reforms, the findings also point to the critical role of labor market dynamics particularly unemployment in influencing inequality trends. The short-run results show that increases in unemployment are strongly and positively associated with inequality, highlighting the importance of inclusive labor market policies. Active labor market

interventions, such as retraining programs, wage subsidies, and targeted employment initiatives for vulnerable groups, are essential to buffering against inequality during periods of economic transition or crisis. Western European countries, while having relatively robust welfare systems, must continue to innovate in job creation strategies that are resilient to technological disruption and climate-driven economic shifts.

Given the evidence of strong error correction dynamics, policymakers should also be aware that while institutions matter in the short term, their most profound impact is realized through long-term structural transformations. Therefore, policies must be designed with a dual focus: implementing immediate institutional adjustments (such as simplifying bureaucratic procedures or improving access to justice) while also investing in long-term capacity building (e.g., judicial independence, civic education, regulatory quality). In this context, European-level cooperation through EU mechanisms can further amplify national efforts by providing financial support, legal benchmarks, and peer-learning platforms that foster institutional convergence and equitable growth across the region.

This study advocates for the integration of inequality reduction into broader institutional quality frameworks within European governance. As institutions are both a cause and a consequence of inequality, they must be systematically evaluated not only for their efficiency and stability but also for their distributive outcomes. This calls for the development of more nuanced indicators that track institutional inclusiveness, access equity, and the effectiveness of redistribution mechanisms. Future research could expand on these findings by incorporating gender, regional, or generational dimensions of inequality, offering a more granular understanding of how institutions shape the social contract. Overall, investing in high-quality, equitable institutions remains a strategic imperative for the future of fair and prosperous European societies.

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