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Golden handcuffs or silver spurs? The implications of inheritance taxes for entrepreneurship

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GOLDEN HANDCUFFS OR SILVER SPURS?

THE IMPLICATIONS OF INHERITANCE TAXES
FOR ENTREPRENEURSHIP

Yang Zhang, Ziang Qiu, Donghyun Park, and Shu Tian

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ABSTRACT

The intricate relationship between wealth redistribution policies and entrepreneurial vitality has long captivated the attention of economists and policymakers. Drawing on data from the Global Entrepreneurship Monitor (GEM) and manually collected information on inheritance taxation policy reforms across a diverse panel of 55 countries from 2000 to 2023, this study uses a staggered difference-in-differences model to examine how the changing rules for wealth transfer taxation influence entrepreneurial activity. Our results show that higher inheritance tax rates are associated with elevated entrepreneurial index scores and that rising inheritance taxes correlate with increases in the entrepreneurial index, while tax cuts correspond to declines. This finding is robust to alternative measures of key constructs and identification strategies. Our results offer valuable insights into how inheritance tax policies influence entrepreneurial behavior, providing essential guidance for policymakers and economists aiming to comprehend the intricate dynamics of wealth transfer and entrepreneurship on a global scale.

Keywords: inheritance tax, entrepreneurship, cross-country, difference-in-differences

JEL codes: L26, H24

I. INTRODUCTION

The term “inheritocracy” describes a societal structure in which wealth, power, and privilege are inherited and perpetuated across generations. Inherited advantages can serve as barriers for individuals who do not come from an affluent or influential background, perpetuating a cycle of privilege that is challenging to break. Inheritance is increasingly becoming the primary determinant of an individual’s advancement to the upper echelons of wealth distribution in Western economies, while the capacity of labor income to drive mobility across the wealth spectrum is diminishing rapidly (Fize, Grimprel, and Landais 2022). In 2010, inherited wealth accounted for more than 50% of the total wealth in France and Germany, compared to figures of 35% and 20%, respectively, in the 1960s (Alvaredo, Garbinti, and Piketty 2017).

The impacts of the resurgence of inheritocracy are far-reaching. Economically, it can stifle innovation and competition, as established interests may overshadow new ideas. This system is commonly associated with the concentration of resources and opportunities within a select few, leading to entrenched inequalities and limited social mobility. Specifically, the implications for entrepreneurship can be profound, as inequality in inherited wealth risks undermining the dynamism and inclusivity of market economies (Corak 2013; Chetty et al. 2014).

The relationship between wealth transmission and entrepreneurship is complex and multifaceted. Schumpeterian theory posits that entrepreneurship—defined as the creation and growth of new firms—drives economic development by introducing innovations and reallocating resources (Schumpeter 1934, Acs and Audretsch 2010). Access to capital is a critical determinant of entrepreneurial entry, especially for innovative but risky ventures (Evans and Jovanovic 1989, Blanchflower and Oswald 1998). Inherited wealth can thus serve as a vital source of seed capital, particularly where financial markets are imperfect, or credit constraints bind (Fairlie and Krashinsky 2012).

However, there is a countervailing logic: large bequests may also reduce the incentive to engage in entrepreneurial activity, encouraging rent seeking or risk aversion among potential heirs (Holtz-Eakin, Joulfaian, and Rosen 1994; Cagetti and De Nardi 2006). Moreover, elevated levels of inherited wealth can entrench social stratification and diminish the “circulation of elites” that Schumpeter argued was essential for capitalism’s renewal (Schumpeter 1942).

Taxing inheritances represents one of the limited tools available to governments for addressing wealth inequality (Kopczuk 2013, Piketty and Saez 2013). Inheritance taxes encompass financial obligations that form part of the legal framework governing the transfer of assets to family heirs upon the passing of business family leaders. These levies include individual taxation of beneficiaries and estate tax, which pertains to taxing the transfer of the estate from a deceased person. Although the impact of inheritance on exacerbating wealth inequality and impeding economic mobility may provide a strong rationale for its taxation on normative grounds, the issue of inheritance tax remains contentious among the public, with rates differing significantly across nations. Countries such as Austria, New Zealand, and Sweden have completely abolished estate

and inheritance taxes. Japan holds the distinction of having the highest inheritance tax rate globally, with a peak marginal rate of 55% in 2024.

Proponents of this tax argue that it is highly progressive, impacting less than 0.2% of estates, and could potentially reduce substantial concentrations of wealth within a select few families. Conversely, opponents contend that estate taxes penalize hard work and frugality, viewing them as a form of double taxation, since much of the wealth has already been taxed as income. Concerns have persisted that estate, inheritance, and gift taxes could deter entrepreneurship, as successful entrepreneurs are more likely to amass sufficient wealth to be subject to such taxes. This fear is rooted in the notion that tax may dissuade entrepreneurial individuals from initiating business ventures or taking risks.

Yet empirical evidence on the consequences of inheritance tax policy on entrepreneurship is scarce. Some studies find that inheritance taxes can reduce the supply of capital for business formation and lower families' incentives to reinvest in the firm (Tsoutsoura 2015). Others suggest moderate taxation may encourage productive investment by reducing the appeal of passive wealth accumulation (Gale and Slemrod 2001). Most existing research is limited to single-country analyses, typically of the United States or a handful of European economies, and rarely exploits policy variation or longitudinal data.

Despite the social and economic repercussions of inheritance and wealth taxation, several important gaps remain in the literature. First, few studies assess the impact of inheritance tax reforms on entrepreneurship across a diverse set of countries. Second, there is a lack of evidence on how the direction of policy reform (upward vs downward) and national context condition the effects of inheritance taxation on entrepreneurial activity. The potential tradeoffs between equity, innovation, and social mobility in the design of inheritance tax policy are not well understood (OECD 2021).

This study addresses these gaps by asking: How do changes in inheritance tax policy affect entrepreneurial activity across diverse national contexts? To answer this, we construct a novel panel dataset combining Global Entrepreneurship Monitor (GEM) metrics with a manually collected record of inheritance tax reforms in 55 countries from 2000 to 2023. Using a staggered difference-in-differences (DiD) framework and controlling for broader economic and demographic trends, we estimate the causal impact of inheritance tax policy changes on a comprehensive set of entrepreneurship measures including entrepreneurial quality, entrepreneurial performance, and institutional environment.

Our results demonstrate that higher inheritance tax rates are associated with elevated entrepreneurial index scores, as measured by the Principal Component Analysis (PCA) approach. The event study further reveals that rising inheritance taxes correlate with increases in the entrepreneurial index, while tax cuts correspond to declines. This supports the incentive effect of inheritance taxation in fostering entrepreneurship across countries—a finding that holds under alternative measures and identification strategies. Additionally, we find that economic policy uncertainty (EPU) moderates the entrepreneurship-promoting effect of inheritance taxes, with the

positive impact being stronger during periods of heightened macroeconomic uncertainty. The findings are robust to a list of alternative measures and stricter specifications.

Our contributions are threefold. First, we complement the entrepreneurship literature by providing novel global evidence on how fiscal policy can stimulate entrepreneurial activity through multiple channels. Exploring potential links between inheritance tax policies and entrepreneurship can enhance our understanding of the macroeconomic and institutional factors influencing entrepreneurial activity. It can also provide insights into the differences in entrepreneurship levels across various countries.

Second, we contribute to the debate on inheritance taxation by documenting how stricter tax measures could potentially stimulate the establishment of new businesses and bolster entrepreneurial vigor. Normatively speaking, reinstating progressivity in inheritance taxations could be deemed advantageous in curbing the excessive accumulation of wealth at the top, preventing the formation of a dynastic rentier class, and safeguarding social mobility. However, empirical evidence on this matter has been limited. Our study introduces a fresh perspective to the policy dialogue, shedding light on the advantages that extend beyond mere government revenue generation.

Third, we examine how EPU influences the tax–entrepreneurship nexus. This investigation contributes to resolving the theoretical tension in the literature by providing systematic evidence on how macroeconomic uncertainty conditions the effectiveness of fiscal policy instruments like inheritance taxes. Our analysis considers both the direct effects of EPU on entrepreneurial activity and its interactive effects with inheritance tax policies, offering a more nuanced understanding of how these factors jointly shape entrepreneurial ecosystems.

The remainder of the paper proceeds as follows. Section II introduces the background and develops the hypotheses. Section III describes the data and the methodology. Section IV presents the results. Section V presents the discussion and additional analysis. Section VI concludes.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. Entrepreneurship

Toder (2017) refers to Joseph Schumpeter’s (1947) definition of an entrepreneur as “an innovator who combines existing productive resources in new ways or for new purposes.” An entrepreneur is characterized as a creative risk taker. Entrepreneurship is widely recognized as a crucial driver of economic growth, innovation, and job creation. Glaeser, Kerr, and Kerr (2015) provide compelling longitudinal evidence from US cities, demonstrating entrepreneurship’s persistent role in urban job creation. Their work bridges micro-level studies with macroeconomic outcomes. Carree et al. (2002) provide empirical evidence linking entrepreneurial activity to broader economic growth, reinforcing the idea that new ventures serve as key drivers of development.

Therefore, understanding the factors that influence entrepreneurial activity is paramount. Extant research has examined the determinants of entrepreneurship at both the micro (individual) and the macro (environmental) levels. On individual characteristics and behaviors, recent research emphasizes the importance of cognitive abilities and personality traits (Hmieleski and Corbett 2006, Sevilir 2010, Müller et al. 2022), reckoning that traits like need for achievement, risk tolerance, proactivity, and self-efficacy are consistently associated with entrepreneurial intention and action. Human capital remains a significant predictor, with Bosma et al. (2004), using GEM data, demonstrating a strong positive correlation between education levels and entrepreneurial activity, though the type of education matters—science, technology, engineering, and mathematics (STEM) fields and business-related degrees are particularly influential. Prior experience, particularly managerial and industry-specific, is also crucial (Evers and O’Gorman 2011).

In addition, social capital is increasingly recognized as a vital determinant. Networks provide access to information, resources, and mentorship. Studies by Hoang and Antoncic (2003) and Stam, Arzlanian, and Elfring (2014) highlight the importance of strong ties (close relationships) for accessing critical resources, and weak ties (acquaintances) for discovering new opportunities. Cultural values also play a role, with societies that value independence, innovation, and risk taking tending to have higher rates of entrepreneurship (Kreiser et al. 2010; Turró, Urbano, and Peris-Ortiz 2014). Cultural origins and risk appetite in parents’ home countries may affect entrepreneurship (Jonsson and Ouyang 2023).

At macro level, entrepreneurship research reveals a complex interplay of factors that shape entrepreneurial activity across different economic and social contexts. More recently, the concept of the “entrepreneurial ecosystem” has gained prominence, emphasizing the importance of the broader environment in fostering entrepreneurship. Institutional factors are critical. Strong property rights, effective contract enforcement, and a stable regulatory environment are essential for reducing risk and encouraging investment (Estrin, Mickiewicz, and Stephan 2016). Government policies can also play a significant role. Tax incentives, subsidies, and streamlined regulations can encourage entrepreneurial activity, while burdensome regulations and high taxes can stifle it (Toma, Grigore, and Marinescu 2014).

Economic growth, access to capital, and availability of skilled labor are all crucial factors (Wong, Ho, and Autio 2005). Technological advancements are increasingly important, creating new opportunities for innovation and entrepreneurship (Schumpeter 1934). The rise of digital technologies and platforms has lowered barriers to entry and facilitated the creation of new ventures (Hinings, Gegenhuber, and Greenwood 2018). Cultural context at the macro level reinforces the micro-level findings. Societies with a high tolerance for risk, a culture of innovation, and a positive attitude toward entrepreneurship tend to have higher rates of entrepreneurial activity (Baumol 1996). Social norms and values can also influence entrepreneurial behavior (Thornton 1999). Geographic factors are also important. Clusters of entrepreneurial activity, such as Silicon Valley, benefit from agglomeration economies, knowledge spillovers, and access to

specialized resources (Porter and Stern 2001). Urbanization and the concentration of population and economic activity can also foster entrepreneurship (Glaeser 2013).

Early foundational work by Audretsch et al. (2002) established the importance of policy frameworks and institutional environments in fostering entrepreneurship, demonstrating significant differences between European and US approaches. Their comparative analysis suggests tailored policy interventions can substantially influence entrepreneurial outcomes.

Later studies highlight equity and inclusion as critical dimensions of entrepreneurship policy. Hart (2003) argues for policy designs that address systemic disparities within entrepreneurial ecosystems, while Rocha (2004) introduces the moderating role of industrial clusters, showing how localized networks shape the relationship between entrepreneurship and regional development. Verheul, van Stel, and Thurik (2006) identify distinct factors influencing female and male entrepreneurship rates across countries, suggesting blanket policies may overlook gender-specific barriers. Their findings call for more nuanced interventions to support women entrepreneurs.

The literature also categorizes different entrepreneurial motives. Austin, Stevenson, and Wei-Skillern (2006) systematically compare social and commercial entrepreneurship, revealing both overlapping and divergent challenges. Their work lays the groundwork for understanding how mission-driven ventures operate within conventional market frameworks. In developing economies, McMullen (2011) advocates for “development entrepreneurship”—a hybrid approach combining business innovation with institutional change to reduce poverty. His market-based perspective highlights entrepreneurship’s potential to transform not just economies but also societal structures. Evers and O’Gorman (2011) reveal that nonfinancial drivers—including creativity, autonomy, and problem solving—often outweigh pure financial considerations.

Thai and Turkina (2014) distinguish between formal and informal entrepreneurship, identifying economic opportunities, governance quality, and cultural factors as key determinants. Autio and Fu (2015) reinforce these findings in their study on Asia and the Pacific, showing how institutional quality disproportionately affects entrepreneurial prevalence.

Financial capital remains a key constraint, particularly for early-stage ventures. Access to funding, whether through personal savings, loans, venture capital, or crowdfunding, significantly impacts entrepreneurial success (Cumming, Leboeuf, and Schwienbacher 2020). However, research suggests financial capital is often less important than human and social capital in the initial stages of venture creation (Liao and Welsch 2005, Haber and Reichel 2007).

Collectively, these studies paint entrepreneurship as a multidimensional phenomenon—one shaped by policy, institutions, culture, and context, with far-reaching implications for economic and social progress.

B. Inheritocracy

Recent evidence indicates that advanced economies are reverting to a system where inherited wealth—rather than individual effort or entrepreneurial activity—plays a dominant role in shaping economic opportunity (Piketty 2014). In developed nations, annual inheritances now total approximately \$6 trillion, equivalent to 10% of gross domestic product (GDP) and double the mid-20th-century share (Piketty and Zucman 2014). This trend is particularly pronounced in France, Germany, and the United Kingdom, where the concentration of bequests has surged, while the proportion of self-made billionaires has declined relative to heirs (UBS 2023). For many, homeownership and financial stability increasingly depend on parental wealth rather than education or career achievement, raising questions about intergenerational equity and mobility.

Inheritance taxes, levied on posthumous wealth transfers, remain contentious. Proponents argue that they mitigate inequality and fund public goods, while critics contend that they distort savings and hinder economic growth. Historically, such taxes aimed to curb wealth concentration and promote redistribution. Early scholarship, including Piketty's (2014) analysis of 20th-century inequality, links inheritance taxes to reduced disparities—though their efficacy in fostering entrepreneurship remains debated.

The literature spans historical analyses, optimal taxation models, and empirical studies of wealth distribution. Piketty's (2003) longitudinal study of France reveals that mid-century declines in inequality were partly incidental, underscoring the intricate relationship between inheritance, accumulation, and inequality. Expanding on this, Piketty and Saez (2012) propose a theoretical framework for optimal inheritance taxation, balancing equity and efficiency. Their models, grounded in microdata from France and the United States, offer actionable insights for policymakers.

Empirical research further clarifies inheritance's distributive effects. Elinder, Erixson, and Waldenström (2018), using Swedish registry data, find that inheritances reduce relative wealth inequality (lowering the Gini coefficient by between 5% and 10%) but increase absolute dispersion—a paradox highlighting inheritance's dual role.

The viability of inheritance taxes is also shaped by political and institutional factors. Scheve and Stasavage (2012) analyze two centuries of cross-national data, showing how historical context and societal norms influence support for wealth redistribution. Similarly, Dagger (2006) frames inheritance taxes as tools for civic cohesion, advocating their integration with progressive consumption taxes.

However, implementation challenges persist. Bjuggren and Sund (2005) demonstrate how inheritance taxes complicate intra-family business transfers, particularly for small and medium-sized enterprises, potentially disrupting continuity and entrepreneurial activity. Normative debates further complicate policy design: García-Miralles (2017) shows how divergent social welfare criteria yield optimal tax rates ranging from negative to highly progressive, reflecting ideological divides over redistribution. The temporal dimension of inheritance taxation also matters. Eliason

and Ohlsson (2013) examine Sweden's inheritance tax repeal, revealing how timing affects wealth transfer strategies and redistribution efficacy.

The development of inheritance tax law in the United States has significantly changed since its inception, reflecting both legal and economic factors. Blakemore and Bancroft (1914) provide an early comprehensive overview of US inheritance tax statutes, focusing on the legal frameworks and court decisions that shaped the initial landscape. Similarly, Kettleborough (1913) examines Indiana's specific inheritance tax laws, highlighting regional legislative approaches and the nuances in state regulations during the early 20th century. Grinnan (1916) reviews Virginia's recent legislative changes, detailing the new inheritance tax provisions and the adjustments in tax rates, exemptions, and valuation methods aimed at enhancing fairness and administrative efficiency. Together, these early works illustrate the foundational principles and regional differences that have characterized inheritance tax laws in the United States.

By the mid-20th century, the practicality and uniformity of these laws became a central focus. Sager (1957) critically evaluates the challenges of implementing consistent death and gift tax laws across jurisdictions, stressing the importance of harmonization for administrative simplicity and taxpayer compliance. Considering legislative changes, Harrison (1998) discusses updates introduced by the Taxpayer Relief Act of 1997, noting increased exemptions and the impact of unified credit on estate planning. This reflects a trend toward higher exemption thresholds and the use of credits to lessen tax burdens, aligning with broader policy goals of reducing estate taxes for smaller estates.

Empirical studies have also contributed to understanding valuation and policy effectiveness. Lee (2004) explores valuation models for unlisted stocks within inheritance tax law and suggests improvements to enhance accuracy and fairness in estate assessments. This research underscores the importance of precise valuation techniques for equitable taxation.

International perspectives are included as well. Franke, Simons, and Voeller (2014, 2016) analyze the German inheritance tax system, with the 2014 study quantifying the effects of employment tax credits on business transfers, while the 2016 paper investigates the benefits of preferential treatment for business property, highlighting policy measures that support business continuity and economic stability through inheritance tax provisions.

While existing research underscores the need for carefully calibrated inheritance taxes, their impact on entrepreneurship remains underexplored. Effects vary by entrepreneurial type, business structure, and institutional context. Robust empirical work is needed to assess long-term tradeoffs between equality and entrepreneurial incentives, ensuring policies foster both equity and economic dynamism.

C. Hypothesis Development

The impact of inheritance tax on entrepreneurial activity is theoretically ambiguous, with multiple channels suggesting complex—and potentially conflicting—effects. These effects operate through

two primary mechanisms: (1) capital availability and risk taking, and (2) incentives for wealth accumulation and innovation.

First, inheritance taxes primarily affect entrepreneurship through capital availability constraints, particularly during ventures' most vulnerable stages. By diminishing intergenerational wealth transfers, these taxes restrict a critical funding source for new businesses when traditional financing options are often inaccessible (Bruce and Deskins 2012). This constraint operates through the following mechanisms. First, it reduces available seed capital, forcing entrepreneurs toward costlier alternatives like venture capital or bank loans. Second, it alters risk assessment, disproportionately discouraging innovative ventures that require patient capital. And third, it potentially discourages long-term wealth accumulation as anticipated tax liabilities reduce expected investment returns.

The capital constraint becomes especially disruptive in intergenerational business transfers. When heirs face substantial inheritance tax burdens without liquid assets, family businesses often face liquidation (Holtz-Eakin, Phillips, and Rosen 2001). Such liquidations create ripple effects throughout local economies: valuable business knowledge is lost, stable employment relationships dissolve, and established supply chains fracture. Small and medium enterprises are particularly vulnerable to these effects, lacking the sophisticated estate planning resources available to larger corporations. This uneven impact distorts entrepreneurial ecosystems, potentially reshaping the composition of business activity as capital-intensive ventures and family-owned operations face disproportionate constraints compared to businesses with alternative financing options.

Additionally, traditional economic theory posits that high inheritance tax rates may discourage wealth accumulation and risky innovative investment, as potential entrepreneurs anticipate significant posthumous tax liabilities reducing their estates' value (Gentry and Hubbard 2000). This perspective suggests inheritance taxes could distort long-term capital formation, particularly for growth-oriented ventures requiring substantial upfront investment. The concern stems from fundamental economic principles about how capital taxation affects savings behavior and intergenerational wealth transfers, with potential implications for business continuity and expansion.

Contrary to the capital availability and risk-taking perspective, the incentive effects suggest inheritance taxation may stimulate entrepreneurial activity. More significantly, inheritance taxes might generate positive entrepreneurial effects through two important channels. First, by imposing substantial wealth transfer costs, these taxes may push heirs to transition from being passive wealth recipients to being active value creators, as they seek to rebuild taxed family fortunes through new ventures. This pressure aligns with Schumpeter's concept of creative destruction, where external constraints spur innovative responses. Second, the revenues generated from inheritance taxes can fund public goods like education and infrastructure that collectively enhance entrepreneurial ecosystems, potentially offsetting some direct negative effects.

The complex interplay between these channels creates a net effect that is theoretically ambiguous and context-dependent. Critical moderating factors include the progressivity of the tax structure, the availability of alternative financing mechanisms, and the composition of entrepreneurial activity within an economy. More developed financial markets, for instance, may mitigate the capital constraint effects by providing substitutes for inherited wealth, while economies dominated by family businesses may experience more pronounced negative impacts. When the incentive and pressure effects outweigh the capital availability and risk-taking concerns, we conjecture a positive relation between inheritance tax rate and entrepreneurship. We formulate the following hypothesis:

H1: Statutory inheritance tax rates exhibit a positive association with entrepreneurial performance, ceteris paribus.

III. DATA AND MODELS

A. Sample

To investigate the impact of inheritance tax rate on country-level entrepreneurship, our empirical study utilizes a cross-country sample from 2000 to 2023. The entrepreneurship index is derived from the Global Entrepreneurship Monitor (GEM) database, which began collecting primary data on entrepreneurship in 2000. After excluding countries with incomplete data, we constructed a panel dataset comprising 55 countries (see Appendix Table 4 for details), of which 12 increased their inheritance tax rates and 13 decreased them during the sample period.

Our data is sourced from various databases, including those of the GEM, the World Bank, and the International Labour Organization (ILO), along Worldwide Tax Summaries by PwC and the official websites of the national tax authorities of our sample countries. Appendix Table 1 presents detailed definitions of the variables used in the analysis.

B. Variables

1. Measurement of Entrepreneurship

Existing literature on entrepreneurship relies primarily on one-dimensional indicators to measure entrepreneurial activity within a country (Evans and Leighton 1990; Carree and Thurik 2008). Common approaches in earlier studies included using self-employment rates, new business formation statistics, and the density of small enterprises as proxies for entrepreneurial engagement (Carree et al. 2002; van Stel, Carree, and Thurik 2005). As the field has evolved and new datasets have emerged, researchers have introduced alternative metrics to better capture the complex nature of entrepreneurial dynamics. However, cross-country comparisons remain challenging. Currently, researchers can select from various metrics, primarily based on two methods: (1) self-reported data from randomly sampled individuals and (2) administrative records obtained from business registries (Stenholm, Acs, and Wuebker 2013; Mrożewski and Kratzer 2017).

For self-reported data, the Organisation for Economic Co-operation and Development (OECD) compiles self-employment statistics from its member countries, calculating the self-employment rate as the proportion of self-employed individuals relative to total civilian employment. Despite this effort, limitations in the selection of sample countries persist, which have led to the establishment of the Global Entrepreneurship Monitor (GEM). This initiative collects more reliable data and offers more comprehensive measures for over 100 countries worldwide (Reynolds et al. 2005).

The GEM database includes 27 indicators grouped into two broad categories: entrepreneurial framework conditions and entrepreneurial behavior and attitudes. To evaluate country-level entrepreneurship more comprehensively, we draw on Dvouletý (2018) and incorporate Principal Component Analysis (PCA) to construct a multidimensional assessment system. Three main dimensions are considered: institutional environment (IE), entrepreneurial performance (EP), and entrepreneurial quality (EQ) (Stenholm, Acs, and Wuebker 2013). As shown in Appendix Table 2, there are a total of 14 indicators across these 3 dimensions.

Before we conduct the PCA, all data is standardized using the mean-value method. We then perform the Kaiser-Meyer-Olkin (KMO) and Bartlett tests to confirm correlations among the sub-dimensional variables. Results (un-tabulated) show that the KMO measure for the entrepreneurship index is 0.746, and the p-values from the Bartlett test of sphericity are 0.006. Additionally, the eigenvalues demonstrate that 14 items load onto 5 factors, with 5 eigenvalues exceeding 1 (Hair Jr et al. 2010).

By inputting the covariance matrix of the fundamental indicators, we compute a comprehensive score based on the weights assigned to each indicator, thereby deriving the values for the dependent variable, *Entrepreneurship*.

2. Measurement of Inheritance Tax

The core independent variables in this study are the inheritance tax rate and policy changes. First, we utilize the continuous inheritance tax rate indicator for our sample countries in the Ordinary Least Squares (OLS) regression to analyze the impact of inheritance tax rates on entrepreneurship (Burman, McClelland, and Lu 2018). Second, to address endogeneity issues, we conduct an event study to evaluate the effects of inheritance tax policy changes on entrepreneurship.

For the inheritance tax rate (*Tax*), PwC has established the Worldwide Tax Summaries, which collect and summarize inheritance tax rates and policy information across various countries. While there are some errors and missing values in certain countries, we reference the official websites of the national tax authorities in our sample countries to supplement this data.

In our quasi-natural experiments, we categorize inheritance tax policy changes based on their direction in the sample countries. We conduct two groups of difference-in-differences (DiD) regressions, with treatment groups consisting of countries that have either increased or decreased their inheritance tax rates, while both control groups comprise countries with no

changes in their inheritance tax rates during the sample period. We set two dummy variables for policy implementation: “*Increase*” is set to 1 if a country increased its inheritance tax rate during the sample period; if there is no change, it is set to 0. Similarly, “*Decrease*” is set to 1 if a country decreased its inheritance tax rate during the sample period, and 0 if there is no policy change. “*Post*” is a year dummy that is 1 for years after the tax policy change and 0 before the adjustment.

Notably, some countries, such as Austria, Canada, Norway, Russia, Singapore, and Sweden, abolished their inheritance tax during the sample period, which we consider a downward policy adjustment. Additionally, countries like Argentina, the People’s Republic of China, Egypt, Malaysia, and Romania had no inheritance tax throughout this time. Following Strawczynski (2014), we report the inheritance tax rates for these countries as 0 in our OLS regression and include them in the control group for the DiD regression. The Appendix Figure on page 32 plots the tax rate of countries with policy adjustments during the sample period.¹

3. Control Variables

Building upon prior studies that investigate the determinants of country-level entrepreneurship, including works by Burman, McClelland, and Lu (2018), Fredström, Peltonen, and Wincent (2021), and del Olmo-García et al. (2023), we have included the following set of control variables in our analysis. A detailed list of these variables can be found in Appendix Table 1.

- i. Economic Growth (*Ingdp*): Research by Harmina, Dumicic, and Cingula (2014) suggests that economic growth positively influences national entrepreneurial activities. Higher economic activity typically leads to greater market demand, providing more opportunities for entrepreneurs. Following Burman, McClelland, and Lu (2018), we use the natural logarithm of annual GDP per capita as a proxy for economic growth.
- ii. Labor Force (*Labor*): Previous studies indicate that the labor force significantly affects national entrepreneurship (Marino, Parrotta, and Pozzoli 2012; Dilli 2021). Enterprise formation is influenced by the labor market, labor structure, and the quality of human capital (Kanniainen and Vesala 2005). Drawing on Carias, Klepper, and Baptista (2023), we measure the labor force as the proportion of the population aged 15–64 relative to the total population.
- iii. Unemployment (*Une*): Research indicates that unemployed individuals are more likely to start firms, although these businesses tend to be smaller and often fail (da Fonseca 2022). Thus, the unemployment rate may impact entrepreneurship. We introduce the unemployment rate, calculated as the proportion of unemployed individuals aged 15–64 relative to the total labor force in that age group, as a proxy for unemployment.
- iv. Research and Development Expenditure (*RD*): Innovation and technological advancements are crucial drivers of entrepreneurship. Innovators can create new

¹ One exceptional case is Japan, where the inheritance tax rate was lowered in 2003 and then raised again in 2013. Consequently, we used yearly observations from 2000 to 2012 for the treated group for the tax decrease event, and yearly observations from 2004 to 2023 for the treated group for the tax increase event.

industries, leading to significant structural changes in the economy (Galindo and Méndez-Picazo 2013). To represent each country's investment in R&D, we use the proportion of R&D expenditure to annual GDP.

- v. Education (*Edu*): The level of national education is intricately linked to the availability of human capital, which is foundational for entrepreneurship (Estrin, Mickiewicz, and Stephan 2016). Entrepreneurs with higher educational backgrounds are more likely to succeed (Martin, McNally, and Kay 2013). High-quality human capital significantly enhances entrepreneurial activity (Qin and Kong 2021). Thus, we select the proportion of the population aged 25 and above with higher education as a proxy for national human capital reserves.
- vi. Industry Structure (*Theil*): The characteristics of industry structure shape the scope of entrepreneurial activities (Stuetzer et al. 2016). According to Geroski (1995), "market entries" depend on industry traits such as capital intensity and the minimum efficient size required for successful operation. We use the Theil Index to measure the rationalization of industry structure in each sample country. The calculation is as follows:

$$theil_{it} = \sum_{m=1}^3 y_{i,m,t} * \ln (y_{i,m,t}/l_{i,m,t}), m = 1,2,3 \quad (1)$$

Here, $y_{i,m,t}$ represents the output ratio of industry m in country i to its annual GDP in year t , while $l_{i,m,t}$ represents the proportion of employees in industry m to total employees in country i in year t .

C. Model Specification

1. Baseline Panel Model

Building upon the settings of previous research about entrepreneurship (Freytag and Thurik 2007, del Olmo-García et al. 2023), we construct our baseline regression model to investigate the impacts of inheritance tax rate on the entrepreneurship as follows:

$$Entrepreneurship_{it} = \alpha_0 + \alpha_1 Tax_{it} + \alpha_2 Control_{it} + \delta_i + \eta_t + \varepsilon_{it} \quad (2)$$

where i and t represent country and year, respectively. *Entrepreneurship* is the dependent variable, which is the country-level entrepreneurship index calculated using the PCA method, while *Tax*, the independent variable, is the annual inheritance tax rate in each sample country. *Control_{it}* is a set of control variables mentioned above, while δ_i and η_t respectively denote country and time fixed effects. Additionally, ε_{it} stands for the random error term.

2. Difference-in-Differences Models

To address potential endogeneity, we conduct quasi-natural experiments to explore the relationship between inheritance tax policy adjustments and entrepreneurship. We identify three main scenarios during the sample period regarding inheritance tax policy in our sample countries: increases, decreases, and no changes in the inheritance tax rate. Given the differing directions

of these policy changes, we perform two groups of quasi-natural experiments. Both groups include control countries with no changes to their inheritance tax rates during the sample period. The DiD models are presented in equation (3) and equation (4):

$$Entrepreneurship_{it} = \alpha_0 + \alpha_1 Post * Increase_{it} + \alpha_2 Control_{it} + \delta_i + \eta_t + \varepsilon_{it} \quad (3)$$

$$Entrepreneurship_{it} = \alpha_0 + \alpha_1 Post * Decrease_{it} + \alpha_2 Control_{it} + \delta_i + \eta_t + \varepsilon_{it} \quad (4)$$

where *Entrepreneurship* is the entrepreneurship index calculated via the PCA method. In equation (3), *Increase* is the policy dummy variable indicating upward adjustment of inheritance tax rate, and *Post* captures whether the policy has been implemented. Similarly, *Decrease* in equation (4) indicates a downward inheritance tax policy adjustment. Other terms in the DiD models are the same as those in the baseline regression model.

IV. EMPIRICAL STUDIES

A. Descriptive Statistics

Table 1 presents summary statistics for our panel dataset, which comprises 55 countries observed over a 24-year period, yielding an unbalanced panel of 903 country-year observations. The dependent variable, our composite entrepreneurship index, exhibits substantial cross-country and temporal variation, with a mean value of 2.3384 (standard deviation = 1.215) and a range spanning from 0.0083 to 6.6270. This wide dispersion reflects significant heterogeneity in entrepreneurial activity across nations and over time.

Our primary explanatory variable, the inheritance tax rate (*Tax*), similarly demonstrates considerable variation across the sample. The statutory tax rates range from 0% in countries with no inheritance taxation to a maximum of 70%, with a mean rate of 9.35% (SD = 14.72). This distribution highlights the diverse policy approaches to wealth transfer taxation among the countries in our sample.

For our quasi-natural experiment analysis, the two binary treatment variables, *Post*Increase* and *Post*Decrease*, show average values of 0.065 and 0.175 respectively, indicating that approximately 6.5% and 17.5% of country-year observations fall into each treatment group. Appendix Table 5 presents the correlation matrix and Variance Inflation Factors (VIFs) for all key variables. All VIF values remain well below the conventional threshold of 10 (mean VIF = 2.15), suggesting that multicollinearity does not pose a significant concern for our estimation results.

This variation in both our dependent variables and our independent variables, combined with the extended temporal dimension of our dataset, provides a robust foundation for identifying the relationship between inheritance tax policies and entrepreneurial outcomes. The substantial spread in tax rates across countries and over time is particularly valuable for our identification strategy, as it allows us to observe policy effects under different institutional contexts.

Table 1: Descriptive Statistics

Variable	Obs	Mean	Standard Deviation	Median	Min	Max
Entrepreneurship	903	2.3384	0.8280	2.2747	0.0083	6.6270
IE	903	2.3328	1.3702	2.2328	0.0021	7.2015
EP	903	2.3444	1.0316	2.0577	0.7905	6.9523
EQ	903	2.3456	0.8483	2.3462	1.6219	6.5888
Tax	903	9.3488	14.1820	1.8000	0.0000	70.0000
Post*Increase	649	0.0650	0.2462	0.0000	0.0000	1.0000
Post*Decrease	718	0.1749	0.3755	0.0000	0.0000	1.0000
Ingdp	903	9.7612	0.9898	9.8635	6.0930	11.5973
Labor	903	66.6858	3.7172	66.2823	56.2074	85.9824
Une	903	7.7277	4.8682	7.0000	0.0000	29.0000
RD	903	1.6649	1.1843	1.2300	0.0003	5.8903
Edu	903	19.8880	10.0105	19.0000	0.8892	59.0000
Theil	903	0.0797	0.1001	0.0366	0.0004	0.6706
EPU	903	151.5504	85.6354	128.0000	27.0000	792.0000
SER	903	23.2602	7.6819	28.6000	6.1000	71.9000

Source: Authors' calculations.

B. Baseline Regression Results

Table 2 presents the core findings from our baseline regression analysis examining the relationship between inheritance tax rates and entrepreneurial activity. The initial specification in column (1), which includes only the inheritance tax rate (*Tax*) as the independent variable, reveals a statistically significant positive coefficient of 0.0117. This preliminary result suggests a positive association between inheritance taxation and entrepreneurship levels.

Our full specification in column (2), incorporating the complete set of control variables, yields an even more pronounced positive coefficient of 0.0131, significant at the 1% level. This estimate implies that a 1-percentage point increase in the inheritance tax rate is associated with a 0.0131 unit increase in our composite entrepreneurship index. The robustness of this positive relationship across specifications provides initial support for hypothesis H1, which posits that inheritance taxes may stimulate entrepreneurial activity.

Table 2: Baseline Regression Results (Ordinary Least Squares)

	(1)	(2)	(3)	(4)	(5)
	Entrepreneurship	Entrepreneurship	IE	EP	EQ
Tax	0.0117*** (3.87)	0.0131*** (4.30)	0.00947* (1.65)	0.00298 (0.65)	0.0176*** (4.00)
Ingdp		-0.0551 (-0.49)	0.200 (1.14)	-0.199 (-1.42)	-0.210* (-1.66)
Labor		0.00948 (0.71)	0.00591 (0.27)	0.0551*** (3.11)	-0.00156 (-0.09)
Une		-0.0228*** (-3.16)	-0.0336** (-2.57)	-0.0306** (-2.22)	-0.00141 (-0.14)
RD		0.109* (1.66)	0.0769 (0.70)	0.116 (1.31)	0.0754 (0.89)
Edu		-0.00470 (-0.70)	0.00632 (0.54)	-0.0167* (-1.78)	-0.0163* (-1.82)
Theil		1.089* (1.92)	1.873*** (3.10)	-0.771* (-1.69)	0.308 (0.66)
_cons	-0.121*** (-3.92)	-0.227 (-0.18)	-2.597 (-1.36)	-1.324 (-0.87)	2.173** (2.48)
<i>Country</i>	Y	Y	Y	Y	Y
<i>Year</i>	Y	Y	Y	Y	Y
<i>N</i>	903	903	903	903	903
<i>Adj. R²</i>	0.6580	0.6638	0.6537	0.6057	0.4652

Notes: t statistics in parentheses (* p < 0.1, ** p < 0.05, *** p < 0.01). Columns (3) (4) (5) are results of regressions with the sub-dimensional entrepreneurship index.

Source: Authors' calculations.

To further investigate this relationship, we decompose our analysis using the three sub-dimensions of our entrepreneurship index as alternative dependent variables (columns 3–5). The results reveal important nuances in how inheritance taxes affect various aspects of entrepreneurial ecosystems.

For the institutional environment (*IE*) dimension, we find a statistically significant positive coefficient, indicating that higher inheritance tax rates correlate with improvements in the institutional framework supporting entrepreneurship. Similarly, the entrepreneurship quality (*EQ*) dimension shows a significant positive relationship with inheritance tax rates, suggesting that such taxes may be associated with higher-quality entrepreneurial ventures. However, we find no statistically significant relationship between inheritance taxes and entrepreneurship performance (*EP*), indicating that, while inheritance taxes may improve the entrepreneurial environment and venture quality, they do not appear to directly affect performance outcomes.

These differential effects across sub-dimensions provide valuable insight into the mechanisms through which inheritance taxes influence entrepreneurial activity. The consistently positive coefficients for *IE* and *EQ*, coupled with the non-significant result for *EP*, suggest inheritance taxes may affect entrepreneurship primarily by shaping the institutional environment and venture quality rather than through direct performance channels. The overall pattern of results supports hypothesis H1, indicating that inheritance tax rates exert a net positive effect on entrepreneurship.

C. Event Study

To provide further evidence on the causal effects of inheritance tax policy changes on entrepreneurial activity, we employ a quasi-experimental difference-in-differences (DiD) framework. Our analysis separately evaluates two distinct policy directions: (1) countries that implemented inheritance tax increases and (2) countries that enacted inheritance tax decreases. This approach allows us to capture potentially various effects of tax policy changes while mitigating concerns about policy endogeneity.

Table 3 presents the key findings from this analysis. Columns (1) and (2) report the results for countries that increased their inheritance tax rates (the treatment group in the first experiment), while columns (3) and (4) present the results for countries that decreased their rates (the treatment group in the second experiment).

The baseline specification in column (1), which includes only the core treatment effect (*Post*Increase*), yields a coefficient of 0.213 that is significant at the 5% level. This positive association between inheritance tax increases and entrepreneurial activity becomes even more pronounced when we incorporate the full set of control variables in column (2), with the coefficient increasing to 0.301, significant at the 1% level. These results provide convincing evidence that inheritance tax hikes are systematically associated with higher levels of entrepreneurship, consistent with H1.

Conversely, the analysis of inheritance tax decreases reveals the opposite pattern. The initial estimate in column (3) shows a significant negative coefficient of -0.246 (significant at the 1% level) for the *Post*Decrease* interaction term. Notably, this relationship remains virtually unchanged (-0.246, significant at the 1% level) after including the complete set of control variables in column (4). This robust negative association between tax reductions and entrepreneurial activity suggests lower inheritance taxes may reduce the incentive for productive entrepreneurship among potential heirs.

Table 3: Inheritance Tax Policy Effects

	(1)	(2)	(3)	(4)
	Entrepreneurship	Entrepreneurship	Entrepreneurship	Entrepreneurship
Post*Increase	0.213** (1.97)	0.301*** (2.73)		
Post*Decrease			-0.246*** (-2.70)	-0.267*** (-2.94)
Ingdp		0.0418 (0.35)		-0.0362 (-0.30)
Labor		0.00858 (0.05)		0.0493*** (2.70)
Une		-0.0196** (-1.96)		-0.0242*** (-3.02)
RD		0.235** (2.17)		0.0891 (1.10)
Edu		-0.0117* (-1.79)		-0.00600 (-0.86)
Theil		0.580 (0.85)		0.989* (1.71)
_cons	-0.0517** (-2.39)	-0.550 (-0.35)	0.0918*** (3.68)	-2.772* (-1.76)
<i>Country</i>	Y	Y	Y	Y
<i>Year</i>	Y	Y	Y	Y
<i>N</i>	649	649	718	718
<i>Adj. R²</i>	0.6625	0.6678	0.6488	0.6591

Notes: t statistics in parentheses (* p < 0.1, ** p < 0.05, *** p < 0.01). *Post*Increase* is the upward inheritance tax policy adjustment, while *Post*Decrease* is the downward inheritance tax policy adjustment.

Source: Authors' calculations.

The opposite-signed results across these two policy experiments enhance the credibility of our findings, as they demonstrate consistent policy effects in both directions of tax rate changes. The stability of the coefficients across specifications with and without controls further suggests our results are not driven by omitted variable bias.

D. Robustness Tests

1. Robustness Tests for Baseline Model

To assess the reliability of our baseline findings, we implement two distinct robustness tests: (1) alternative measurement of the dependent variable and (2) lagged specification analysis. The results of these tests are presented in Table 4.

Table 4: Robustness Tests Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Entrepreneurship1	F.Entrepreneurship	Entrepreneurship (propensity score matching)	Entrepreneurship (propensity score matching)	Entrepreneurship1	Entrepreneurship1	F.Entrepreneurship	F.Entrepreneurship
Tax	0.0149** (1.96)	0.0556** (2.14)						
Post*Increase			0.323** (2.53)		0.372* (1.76)		0.0875** (2.06)	
Post*Decrease				-0.205** (-2.20)		-0.241** (-2.37)		-0.202* (-1.85)
<i>Control</i>	Y	Y	Y	Y	Y	Y	Y	Y
<i>Country</i>	Y	Y	Y	Y	Y	Y	Y	Y
<i>Year</i>	Y	Y	Y	Y	Y	Y	Y	Y
<i>N</i>	903	749	595	572	649	718	535	590
<i>Adj. R²</i>	0.6513	0.6718	0.6564	0.6626	0.4952	0.5387	0.6795	0.6630

Notes: t statistics in parentheses (* p < 0.1, ** p < 0.05, *** p < 0.01). *Entrepreneurship1* is the entrepreneurship index calculated via that TOPSIS method, and *F.Entrepreneurship* represents “Forward Entrepreneurship.” *Post*Increase* is the coefficient of the upward inheritance tax policy adjustment, while *Post*Decrease* is the coefficient of the downward inheritance tax policy adjustment.

Source: Authors’ calculations.

First, we examine the sensitivity of our results to alternative operationalizations of entrepreneurial activity. Column (1) reports estimates using *Entrepreneurship1*, an alternative composite index constructed following the TOPSIS methodology (Metvae 2019). Introducing the TOPSIS method into the PCA can improve the objectivity and fairness of the evaluation results. As Table 4 shows, the positive and statistically significant coefficient (0.0149, p < 0.05) for the inheritance tax rate (*Tax*) confirms our baseline finding, suggesting that a 1-unit increase in the tax rate corresponds to a 0.0149 unit increase in the entrepreneurship index. The consistency of this result across different measurement approaches strengthens confidence in our primary findings.

Second, recognizing that policy effects may manifest with temporal delays, we estimate a lagged specification in column (2). This analysis reveals an even stronger positive association (0.0556, p < 0.05) between inheritance tax rates and subsequent entrepreneurial activity, suggesting the stimulative effects of inheritance taxation may intensify over time. The statistical significance of

this lagged relationship provides further evidence that our baseline results do not owe to contemporaneous correlations but reflect meaningful policy dynamics.

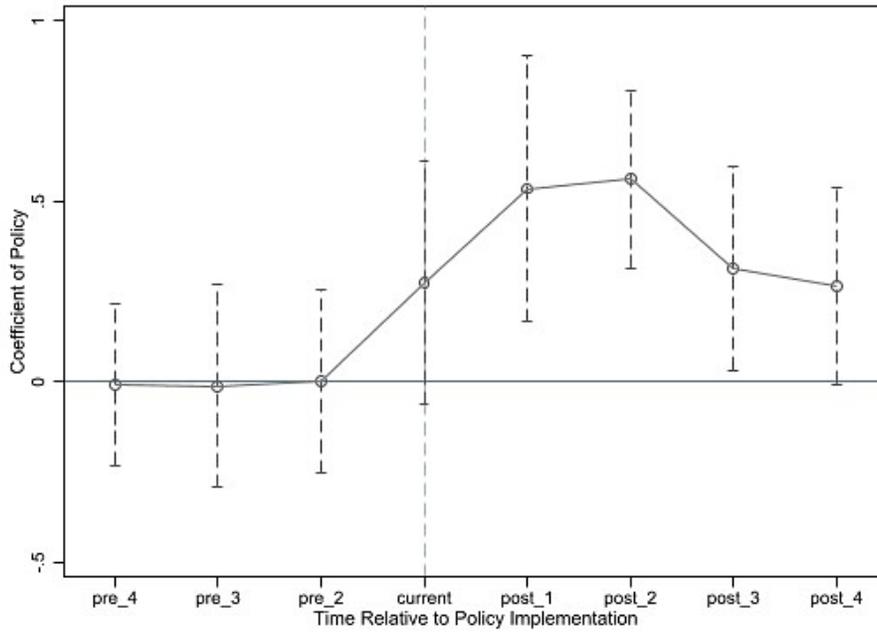
2. Robustness Tests for the Difference-in-Differences Model

We implement a comprehensive set of robustness checks to validate our staggered DiD estimates; Figures 1–2 and Table 4 present results. The parallel trends assumption, fundamental to our causal interpretation, receives strong empirical support. Visual inspection of Figure 1 reveals no statistically discernible differences in entrepreneurial activity between treatment and control groups during the pre-treatment period for both tax increase and tax decrease scenarios. The clear divergence in post-treatment trends provides compelling evidence of genuine policy effects while confirming the appropriateness of our identification strategy.

Complementary placebo tests, conducted through 500 bootstrap iterations, offer further validation of our findings. For the tax increase analysis, the actual treatment effect estimate of 0.301 falls well beyond the 95th percentile of the placebo distribution, with only 2.4% of simulated coefficients exceeding our observed value. Similarly, for tax decreases, our estimated effect of -0.246 resides below the 5th percentile of placebo coefficients, with merely 3.1% of simulated results showing stronger negative effects. These patterns strongly reject the null hypothesis of no treatment effect. This comprehensive validation exercise provides multiple forms of empirical support for our findings. The parallel trends analysis substantiates the exogeneity assumption underlying our identification strategy, while the placebo tests confirm the statistical significance of our estimated effects.

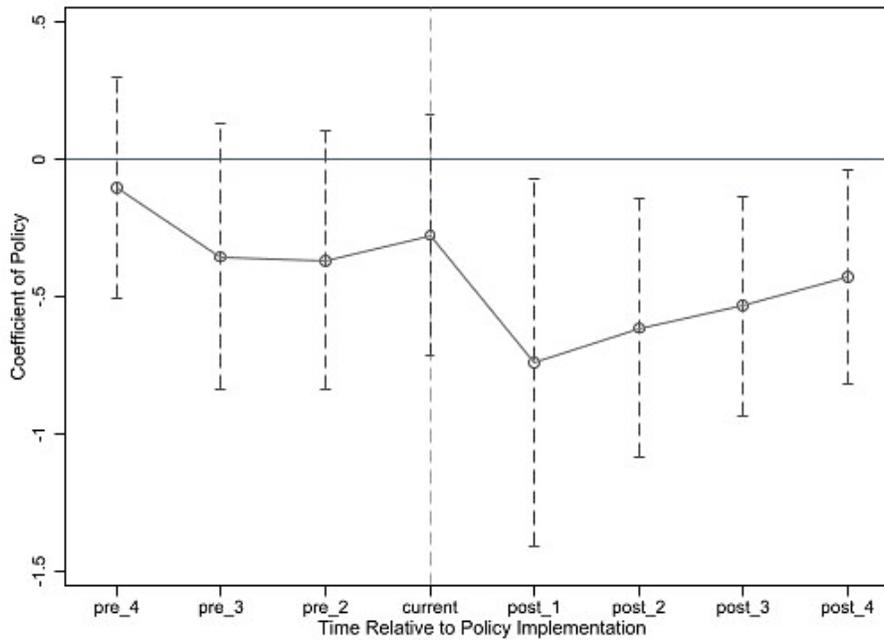
To address potential selection bias concerns, we implement propensity score matching (PSM) using radius matching and report the results in columns (3) and (4) in Table 4. Focusing on the PSM sample, we find a coefficient of 0.323 ($p < 0.01$) for tax increases and -0.205 ($p < 0.05$) for tax decreases in the matched samples. The enhanced effect sizes compared to our baseline estimates suggest our original results may represent conservative approximations, while the consistent direction and significance across specifications reinforce confidence in our conclusions.

Figure 1a: Parallel Test for Upward Policy Change



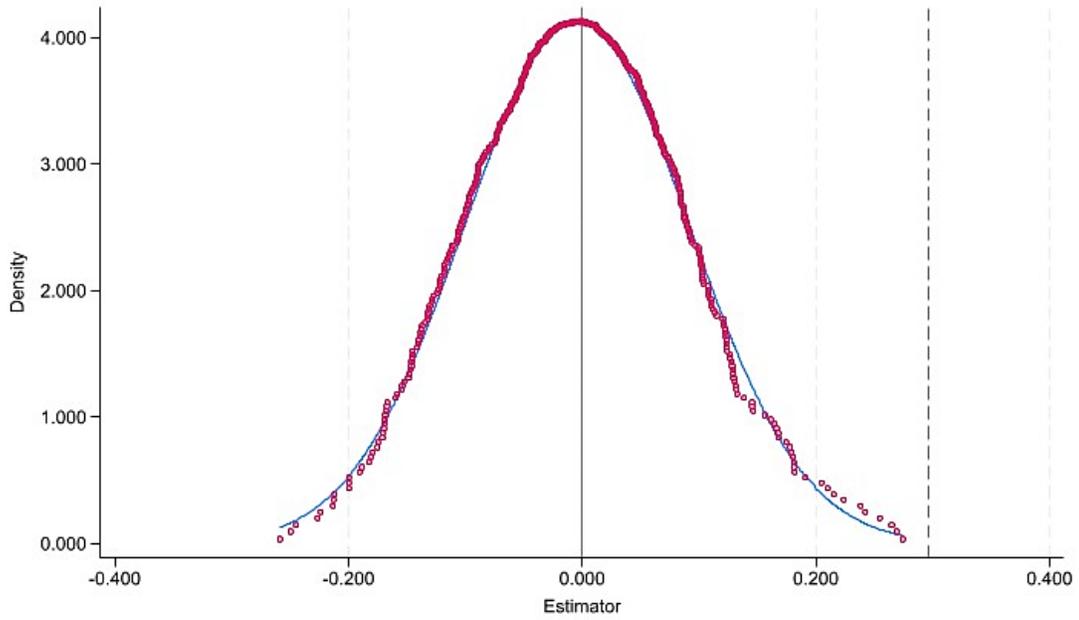
Source: Authors' calculations.

Figure 1b: Parallel Test for Downward Policy Change



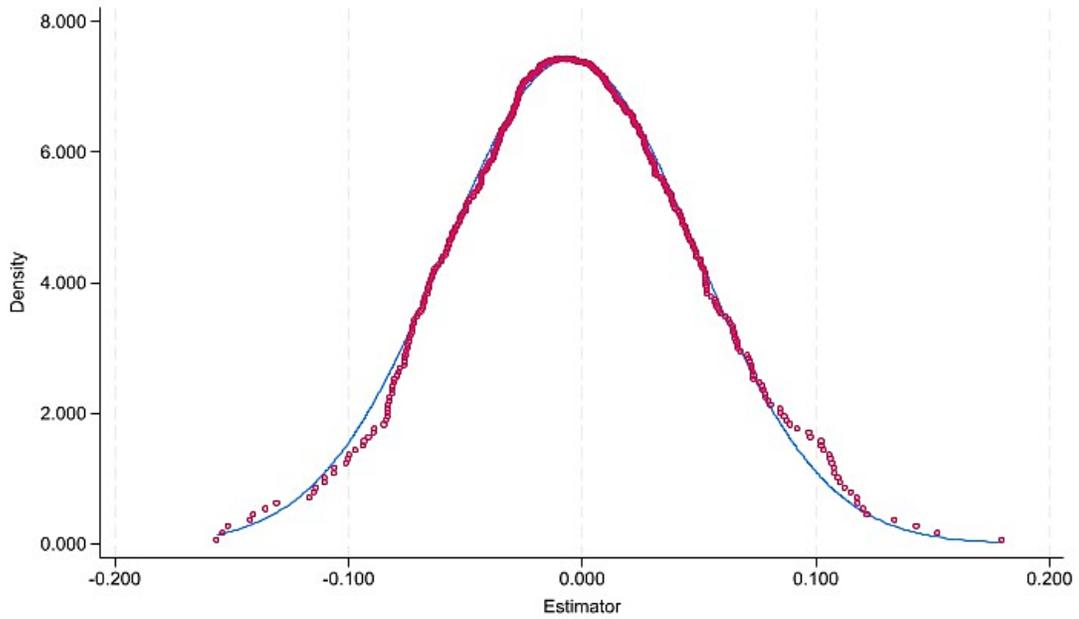
Source: Authors' calculations.

Figure 2a: Placebo Examination for Upward Policy Change



Source: Authors' calculations.

Figure 2b: Placebo Examination for Downward Policy Change



Source: Authors' calculations.

We further examine the robustness of our DiD results using the alternative measures mentioned above. First, using *Entrepreneurship1* produces coefficients of 0.372 ($p < 0.10$) for tax increases and -0.241 ($p < 0.05$) for tax decreases. Second, a lagged treatment specification yields estimates of 0.0875 ($p < 0.05$) and -0.202 ($p < 0.10$), respectively. The persistence of statistically significant effects across these alternative approaches indicates our findings are not driven by measurement choices or temporal misspecification.

The PSM-DiD approach addresses potential selection bias concerns, and the alternative specifications demonstrate the stability of our results across different modeling choices. The consistent directionality of effects—with tax increases stimulating entrepreneurship and decreases suppressing it—emerges as a robust pattern that withstands rigorous scrutiny. The lagged specifications additionally suggest policy effects may evolve over time, with potentially distinct short- and longer-term consequences.

Collectively, these robustness checks establish that our core findings reflect genuine policy relationships regarding the entrepreneurship consequences of inheritance tax reforms rather than methodological artifacts or spurious correlations. The comprehensive nature of our validation approach strengthens the credibility of our conclusions and supports their use in informing tax policy decisions.

V. FURTHER ANALYSIS

A. The Role of Economic Policy Uncertainty

The literature identifies economic policy uncertainty (EPU) as a significant contextual factor influencing the relationship between fiscal policies and entrepreneurial outcomes. As an exogenous macroeconomic shock, EPU generates complex effects on economic activity through multiple transmission channels. Conventional theoretical perspectives, supported by empirical work (Caggiano, Castelnuovo, and Figueres 2017; Fasani and Rossi 2018), emphasize EPU's disruptive effects on national output, employment, and productivity. These studies suggest that heightened uncertainty reduces market demand and business opportunities, consequently dampening entrepreneurial activity (Hoang, Nguyen, and Nguyen 2023). The mechanism operates through increased risk premiums, delayed investment decisions, and constrained access to financing—all particularly detrimental to new venture creation.

However, an emerging stream of research presents a countervailing perspective. Alternative theoretical frameworks propose that EPU may stimulate entrepreneurial activity by reshaping social and cultural norms (Nguyen et al. 2021, Khurana et al. 2023). This view suggests that economic uncertainty can motivate individuals to seek entrepreneurial opportunities as traditional employment becomes less stable, while simultaneously creating market niches that innovative ventures can exploit. The apparent contradiction in theoretical predictions highlights the need for empirical investigation of EPU's contingent effects.

Building on this theoretical foundation and following Hoang, Nguyen, and Nguyen's (2023) methodological approach, we specify our moderating effect model to examine how EPU influences the inheritance tax–entrepreneurship relationship. Our empirical strategy accounts for the possibility that EPU may either amplify or mitigate the effects of inheritance tax policies depending on which theoretical channel dominates in each economic context. Specifically, we construct our moderating effect model as follows:

$$Entrepreneurship_{it} = \beta_0 + \beta_1 Tax_{it} + \beta_2 EPU_{it} + \beta_3 Tax_{it} * EPU_{it} + \beta_4 Control_{it} + \delta_i + \eta_t + \varepsilon_{it} \quad (5)$$

where *EPU* is the country-level EPU index from www.policyuncertainty.com/, while the interaction term *Tax * EPU* is added as one of the core components.

Furthermore, to investigate EPU's potential impacts on the inheritance tax policy effects, drawing upon Wang, Gong, and Yang (2024), we employ the difference-in-differences-in-differences (DDD) models as follows:

$$Entrepreneurship_{it} = \beta_0 + \beta_1 Increase_i * Post_t * EPUdummy_{it} + \beta_2 Increase_i * Post_t + \beta_3 Increase_i * EPUdummy_{it} + \beta_4 Post_t * EPUdummy_{it} + \beta_5 Control_{it} + \delta_i + \eta_t + \varepsilon_{it} \quad (6)$$

$$Entrepreneurship_{it} = \beta_0 + \beta_1 Decrease_i * Post_t * EPUdummy_{it} + \beta_2 Decrease_i * Post_t + \beta_3 Decrease_i * EPUdummy_{it} + \beta_4 Post_t * EPUdummy_{it} + \beta_5 Control_{it} + \delta_i + \eta_t + \varepsilon_{it} \quad (7)$$

Here we construct a dichotomous measure (*EPUdummy*) based on cross-national comparisons of policy uncertainty levels. Our operationalization uses the annual global EPU index as the benchmark, assigning *EPUdummy* a value of 1 when a country's EPU index exceeds the global average each year, and 0 otherwise. This specification provides several analytical advantages for evaluating our conceptual framework. First, the interaction term (*Tax * EPUdummy*) directly assesses whether the entrepreneurship effects of inheritance taxation vary systematically between high- and low-uncertainty regimes. Second, the dichotomous operationalization of EPU ensures clear interpretability of the moderation effects while avoiding strong distributional assumptions. Third, the global benchmark approach accounts for temporal variation in worldwide uncertainty levels, preventing artificial inflation of effects during periods of universally high uncertainty.

In equations (6) and (7), the model coefficients β_2 represents the baseline relationship between inheritance taxes and entrepreneurial activity, and β_1 captures the incremental effect of this relationship during periods of elevated policy uncertainty.

Table 5 presents the key findings from our moderation analysis and DDD estimations. The moderation analysis in column (1) reveals two statistically significant positive coefficients: the baseline effect of inheritance tax ($\beta_1 = 0.0133$) and the interaction term between tax and EPU ($\beta_2 = 0.00282$). These results demonstrate that, while inheritance taxes promote entrepreneurial activity, this positive relationship strengthens during periods of elevated policy uncertainty. The positive interaction effect suggests EPU amplifies rather than diminishes the entrepreneurship-

enhancing effects of inheritance taxation. This finding implies the combination of wealth transfer taxation and macroeconomic uncertainty may create particularly favorable conditions for new venture creation, by increasing the relative attractiveness of entrepreneurial pursuits compared to traditional employment during uncertain times.

Table 5: Moderating Effect and DDD Regression Results

	(1) Entrepreneurship	(2) Entrepreneurship	(3) Entrepreneurship
Tax	0.0133*** (4.44)		
Tax*EPU	0.0282* (1.75)		
Post*Increase		0.323** (2.50)	
Post*Increase*EPUdummy		0.0153* (1.70)	
Post*Decrease			-0.239** (-2.11)
Post*Decrease*EPUdummy			-1.310** (-2.39)
Control	Y	Y	Y
Country	Y	Y	Y
Year	Y	Y	Y
N	903	649	718
Adj.R ²	0.6646	0.6659	0.6571

Notes: t statistics in parentheses (* p < 0.1, ** p < 0.05, *** p < 0.01).

Source: Authors' calculations.

Our triple difference estimation provides further nuance to these findings. Column (2) focuses on countries that increased inheritance tax rates, showing positive and significant coefficients for both the main treatment effect (*Post*Increase*) and the three-way interaction term (*Increase*Post*EPUdummy*). This pattern indicates that the positive effect of inheritance tax hikes on entrepreneurship becomes particularly pronounced in high-EPU environments. The magnitude of this interactive effect suggests policy uncertainty may enhance the mechanisms through which inheritance taxes stimulate entrepreneurial activity, potentially by amplifying the incentive and pressure effect on potential entrepreneurs.

Conversely, column (3) examines countries that decreased inheritance tax rates, revealing negative and significant coefficients for both the primary treatment effect (*Post*Decrease*) and its interaction with EPU (*Decrease*Post*EPUdummy*). This result demonstrates that the

entrepreneurship-dampening effects of inheritance tax reductions are most evident in high-EPU episodes.

These findings collectively paint a nuanced picture of how macroeconomic uncertainty conditions the effectiveness of inheritance tax policies. The results show that the positive entrepreneurship effects of inheritance taxes strengthen during periods of high policy uncertainty. The negative effects of inheritance tax cuts get amplified in unstable policy environments. This suggests policy uncertainty affects entrepreneurial behavioral responses to tax policy changes.

B. Alternative Measurement of Entrepreneurship

Prior research has predominantly relied on unidimensional measures of entrepreneurship, with self-employment activity serving as a common proxy for country-level entrepreneurial activity (Acs, Desai, and Klapper 2008; Marcotte 2013). In line with Nikolaev, Boudreaux, and Palich (2018), we complement our primary analysis by examining the self-employment rate (SER) from the World Development Indicators database, defined as the proportion of self-employed individuals relative to total employment. This conventional metric allows for direct comparison with existing studies while assessing the robustness of our findings.

Our analysis using SER as an alternative measure of entrepreneurship yields results consistent with our primary findings. The OLS regression in Table 6 shows a statistically significant positive relationship (coefficient = 0.198, $p < 0.01$) between inheritance tax rates and SER, indicating that higher taxes correlate with a higher SER, indicative of greater entrepreneurial activity. This alignment across different operationalizations of entrepreneurship strengthens the robustness of our core results.

The DiD analysis further confirms these patterns, with inheritance tax increases associated with a 0.256 unit rise in SER ($p < 0.10$) and decreases corresponding to a 0.187 unit decline ($p < 0.10$). These consistent directional effects across both OLS and DiD specifications suggest the relationship between inheritance taxes and entrepreneurship is not sensitive to measurement choices, reinforcing the validity of our conclusions.

Table 6: Regression Results on Self-employment Rate

	(1) SER	(2) SER	(3) SER
Tax	0.198*** (3.52)		
Post*Increase		0.256* (1.90)	
Post*Decrease			-0.187* (-1.81)
Control	Y	Y	Y
Country	Y	Y	Y
Year	Y	Y	Y
N	903	649	718
Adj.R ²	0.6646	0.6659	0.6571

Notes: t statistics in parentheses (* p < 0.1, ** p < 0.05, *** p < 0.01). SER is the alternative dependent variable, self-employment rate.

Source: Authors' calculations.

VI. CONCLUDING REMARKS

Leveraging data from the Global Entrepreneurship Monitor (GEM) and a collection of inheritance taxation policy reforms across 55 countries spanning the period from 2000 to 2023, this research employs a staggered difference-in-differences (DiD) model to investigate the impact of evolving regulations on wealth transfer taxation on entrepreneurial endeavors. The findings indicate that heightened inheritance tax rates are linked to higher entrepreneurial index scores. Specifically, we show that an increase in inheritance taxes is linked to a rise in the entrepreneurial index, whereas tax reductions are associated with decreases in entrepreneurial activity.

The potential positive entrepreneurial impact of inheritance tax aligns with the argument put forth by Fize, Grimprel, and Landais (2022), suggesting that taxing inheritances and redistributing the resulting revenue could yield advantages in terms of equity and efficiency. Therefore, an optimal inheritance tax rate should be set above zero. Our results support the adoption of an international collaborative strategy to counteract competition among nations to lower taxes on high-net-worth individuals and discourage the transfer of wealth. By harmonizing these taxes on an international scale, this paper advocates for a more equitable distribution of the tax burden and underscores the opportunities for fostering entrepreneurship associated with inheritance levies. Facing increasing inheritocracy, policymakers might contemplate the elimination of prevalent tax loopholes and the enhancement of the effective progressivity of the inheritance tax schedule, thereby contributing to more vigorous entrepreneurial activities.

APPENDIX TABLES AND FIGURE

Appendix Table 1: Variable Definitions

Variable	Definition	Source
Entrepreneurship	Entrepreneurship Index calculated by Principal Component Analysis method	Global Entrepreneurship Monitor
IE	Institutional Environment (sub-dimension of the entrepreneurship index)	Global Entrepreneurship Monitor
EP	Entrepreneurship Performance (sub-dimension of the entrepreneurship index)	Global Entrepreneurship Monitor
EQ	Entrepreneurship Quality (sub-dimension of the entrepreneurship index)	Global Entrepreneurship Monitor
Tax	Inheritance tax rate of sample countries	PwC, official websites of national tax authorities
Post*Increase	Upward inheritance tax policy adjustment	Official websites of national tax authorities
Post*Decrease	Downward inheritance tax policy adjustment	Official websites of national tax authorities
SER	Self-employment rate (proportion of self-employed individuals relative to total employment)	World Development Indicators database, International Labour Organization
EPU	Economic Policy Uncertainty Index	www.policyuncertainty.com/
EPUdummy	Value of 1 when a country's Economic Policy Uncertainty Index exceeds the global average each year, and 0 otherwise	www.policyuncertainty.com/
Ingdp	Natural logarithm of nominal annual gross domestic product per capita	World Development Indicators database
Labor	Proportion of labor force population (aged 15–64) to the total population	World Development Indicators database, International Labour Organization
Une	Proportion of unemployed labor force population (aged 15–64) to the total labor force population (aged 15–64)	World Development Indicators database, International Labour Organization

Continued on the next page

Variable	Definition	Source
RD	Proportion of research and development expenditure to annual gross domestic product	World Development Indicators database
Edu	Proportion of population aged 25 and above who have received higher education	World Development Indicators database
Theil	Theil Index of sample countries	World Development Indicators database

Source: Authors.

Appendix Table 2: Evaluation System of Entrepreneurship

Primary	Secondary	Third-Level
Entrepreneurship (Score)	Institutional Environment	Governmental support and policies
		Basic school entrepreneurial education and training
		Commercial and professional infrastructure
		Internal market dynamics
		Internal market openness
		Research and development transfer
	Entrepreneurial Performance	Innovation
		Entrepreneurial intentions
		Total early-stage entrepreneurial activity
Entrepreneurial Quality	Established business ownership	Female/male total early-stage entrepreneurial activity
		High job creation expectation rate
		Entrepreneurship as a good career choice rate
		High status to successful entrepreneurs rate

Source: Authors.

Appendix Table 3: List of Sample Countries

Code	Country	Year of Policy Change	Direction
1	United States	2012	upward
2	Russia	2006	downward
3	Egypt	NA	NA
4	South Africa	2016	upward
5	Greece	2003	downward
6	Netherlands	2010	downward
7	Belgium	NA	NA
8	France	2016	downward
9	Spain	2022	downward
10	Hungary	NA	NA
11	Italy	2006	upward
12	Romania	NA	NA
13	Switzerland	2015	upward
14	Austria	2008	downward
15	United Kingdom	NA	NA
16	Denmark	NA	NA
17	Sweden	2005	downward
18	Norway	2014	downward
19	Poland	NA	NA
20	Germany	2009	downward
21	Peru	NA	NA
22	Mexico	NA	NA
23	Argentina	NA	NA
24	Brazil	2022	upward
25	Chile	2022	upward
26	Colombia	2022	upward
27	Malaysia	NA	NA
28	Australia	NA	NA
29	Indonesia	NA	NA
30	Singapore	2008	downward

Continued on the next page

Code	Country	Year of Policy Change	Direction
31	Thailand	2016	upward
32	Japan	2003, 2013	downward (2003), upward (2013)
33	Republic of Korea	NA	NA
34	People's Republic of China	NA	NA
35	Türkiye	NA	NA
36	India	NA	NA
37	Iran	NA	NA
38	Canada	NA	NA
39	Portugal	2004	downward
40	Ireland	NA	NA
41	Finland	NA	NA
42	Latvia	NA	NA
43	Croatia	2017	downward
44	Slovenia	NA	NA
45	Bosnia and Herzegovina	2012	upward
46	Slovakia	NA	NA
47	Guatemala	2020	upward
48	Panama	NA	NA
49	Ecuador	2022	upward
50	Uruguay	NA	NA
51	Kazakhstan	NA	NA
52	Jamaica	NA	NA
53	Saudi Arabia	NA	NA
54	United Arab Emirates	NA	NA
55	Israel	NA	NA

Notes: This list presents the year of inheritance tax rate change and its direction. If there is no change during the sample period (2000–2023), these two columns are filled with “NA.”

Source: Authors.

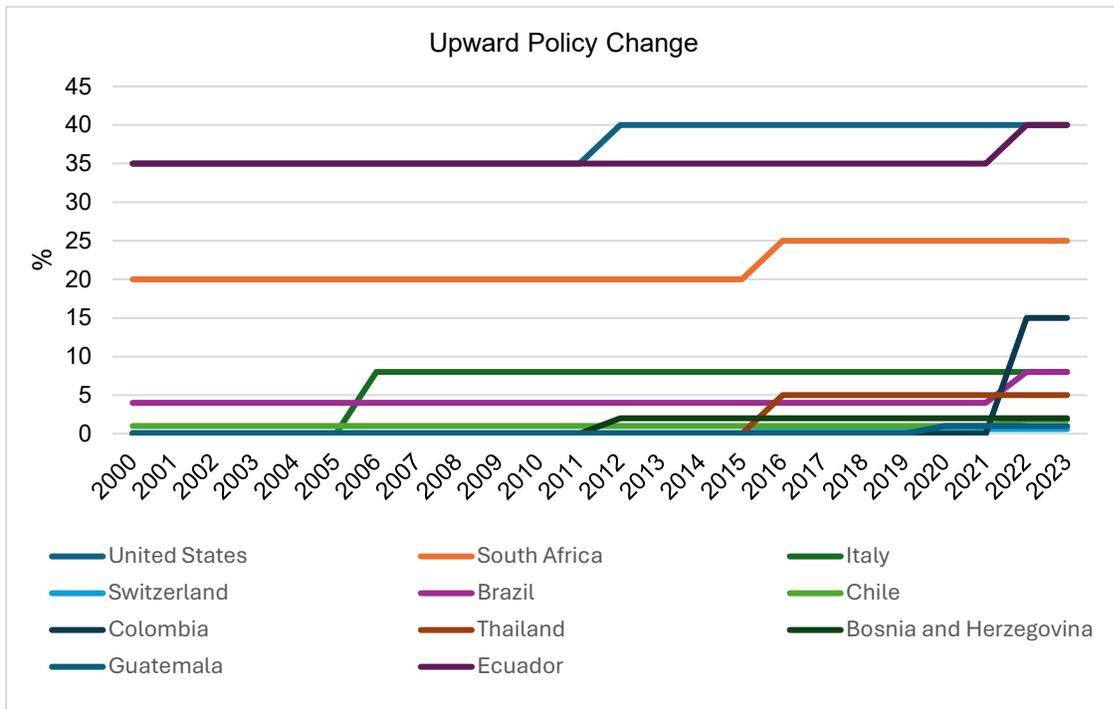
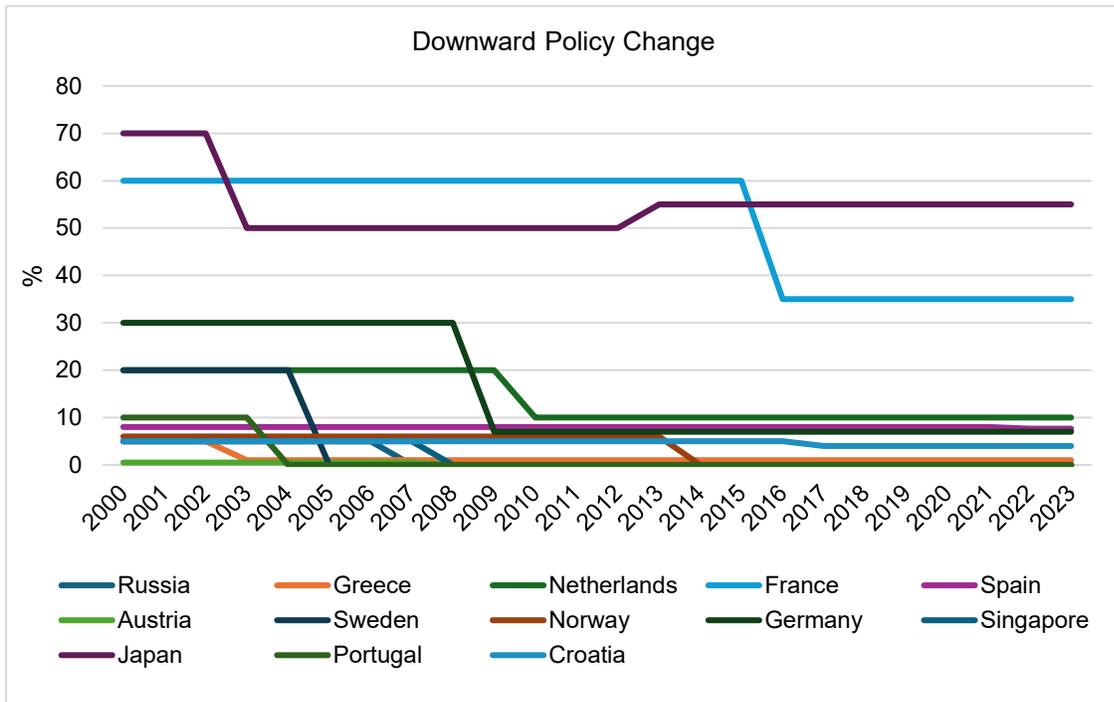
Appendix Table 4: Pearson Correlation Analysis and Variance Inflation Factor Test Results

Variable	Variance Inflation Factor	(Entrepreneurship)	(Tax)	(Ingdp)	(Labor)	(Une)	(RD)	(Edu)	(Theil)
Entrepreneurship		1.000							
Tax	7.15	0.056*	1.000						
Ingdp	1.73	0.286***	0.299***	1.000					
Labor	9.30	0.247***	-0.156***	0.035	1.000				
Une	5.60	-0.264***	-0.037	-0.199***	-0.058*	1.000			
RD	3.66	0.314***	0.332***	0.694***	-0.072**	-0.226***	1.000		
Edu	8.78	0.313***	0.182***	0.683***	0.158***	-0.248***	0.554***	1.000	
Theil	5.08	0.175***	-0.243***	-0.345***	0.030	-0.215***	-0.238***	-0.103***	1.000

Notes: *** p < 0.01, ** p < 0.05, * p < 0.1.

Source: Authors.

Appendix Figure: Tax Rates in Countries with Downward and Upward Policy Change



Source: Authors' calculations.

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Golden Handcuffs or Silver Spurs?

The Implications of Inheritance Taxes for Entrepreneurship

This paper examines how inheritance tax reforms influence entrepreneurship, using Global Entrepreneurship Monitor data and policy changes across 55 countries from 2000 to 2023. Results show that higher inheritance taxes are linked to increased entrepreneurial index scores, while tax cuts correspond to declines. These findings remain robust across various measures and identification strategies. The study offers key insights for policymakers and economists on how wealth transfer taxation shapes entrepreneurial behavior globally, underscoring the dynamic relationship between fiscal policy and innovation.

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