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The impact of constitutional protection of economic rights on entrepreneurship: A taxonomic survey

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Abstract

In this monograph we perform an in-depth analysis of 195 constitutional texts to single out the provisions that, by enhancing economic freedom in a country, are likely to create the institutional side of an entrepreneurial ecosystem favorable to new business creation. The relevant information on constitutions is extracted from the Comparative Constitutions Project: A Cross-National Historical Dataset of Written Constitutions (Elkins et al. 2009), a repository of valuable data on the formal characteristics of written constitutions for most independent states since 1789. Data on entrepreneurial activity in the countries taken into account in the empirical analysis are extracted from the World Bank Group Entrepreneurship Database. The study addresses a question of primary importance for the analysis of entrepreneurship: Does constitutional protection of principles and values which are commonly referred to as the 'economic constitution' and which are usually associated with a country's entrepreneurial activity, positively influence the rate of new firm formation and the total endowment of entrepreneurship capital in that country? We are able to give a positive answer to this question and this legitimates us to recommend inclusion of provisions prone to entrepreneurship in the constitution of any country.

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1. Introduction

In modern economics, the importance of entrepreneurship is usually highlighted in terms of its impact on long-term growth and aggregate productivity (cf., among others, Aghion and Bolton, 1977). But there is more. As suggested by Audretsch and Moog (2022), entrepreneurship is also a cornerstone of democracy. Although one cannot exclude that the relationship between entrepreneurship and democracy might be affected by reverse causation, it is out of question that the latter is the fundamental common value among Western countries, and that entrepreneurship represents the pillar ensuring the "independent, decentralized, and autonomous-decision making" necessary to preserve democracy. It is therefore no surprise that the legal and institutional frameworks that characterize most Western countries have been designed to generate incentive-compatible mechanisms intrinsically favorable to the creation of new firms (Carbonara, Tran, and Santarelli, 2016; Davidsson, 2015). Conversely, the centrally planned economies of the 20th Century relied upon institutional arrangements favoring state-controlled transactions and limiting the right to establish and conduct a business.

The institutional setups of Western countries are consistent with the 'democratic' view of entrepreneurship described by Audretsch and Moog (2022). Scholars embracing this view consider the importance of 'the many' firms that are created at any time in any industry and portion of territory more than that of 'the few' high-growth gazelles, unicorns (valued at $1 billion), and decacorns (valued at $10 billion) which are expected to dominate the high-tech field and push forward the frontiers of innovation (cf., among others, Kuratko and Audretsch, 2022; Mogos, Davis and Baptista, 2021).

In fact, countries differ in terms of firm demographics and contribution of Small and Medium-Sized Enterprises (SMEs) to Gross Domestic Product (GDP), with some of them characterized by greater proneness to entrepreneurship and higher rates of new firm formation than others. This empirical evidence has been taken by the strain of literature initiated by Acs, Audretsch et al. (2009) as a clue that the endowment of entrepreneurship capital varies significantly across countries.

Among the possible explanations of such heterogeneity, the role played by different legal and institutional systems deserves special attention. Legal systems protecting

property rights (both real and intellectual), together with the right to establish and conduct a business and market freedom seem to exert a positive effect on entrepreneurship. Therefore, cross-country differences in the enforcement of such norms may explain the observed variation in the endowment of entrepreneurship capital.

Since constitutions delineate the pillars of the legal systems that govern organizations and entities in a country, they can be assumed to represent the institutional framework that governs and addresses the main features of social and economic life in a country. For example, the principles introduced by America's Founders at the Constitutional Convention sessions in 1787 to protect property rights and free markets clearly contributed to promote the conditions for the entrepreneurial dynamism lately witnessed by de Tocqueville, who wrote "What astonishes me in the United States is not so much the marvelous grandeur of some undertakings as the innumerable multitude of small ones" (*On Democracy in America*, Chapter XIX). The widespread acceptance of such principles is certainly among the underlying factors which on July 30, 1953 lead the US Congress to pass the Small Business Act and create the Small Business Administration, with the purpose to help small businesses to grow and create jobs.

There is debate on whether the explicit inclusion of a right in the constitution represents an effective protection of that right and a powerful tool for fostering the enactment of consistent lower-level laws. On the one hand, constitutions represent higher-rank legal sources, and the universe of subordinated rules and norms cannot oppose their principles and provisions. Constitutional protection therefore grants a special status to rights (Kelsen, 1967), which is likely to make their impact on economic activity notable. On the other hand, it is often argued that not all constitutional rights are implemented *de facto*, which means that constitutional inclusion might have no impact at all on the behavior of economic agents (Chilton and Versteeg, 2016).

It then becomes interesting to assess whether constitutional provisions directly or indirectly favoring the creation and the success of new firms, and which preserve small businesses exert an effective, positive impact on a country's endowment of entrepreneurship capital.

The purpose of the present study is to highlight how certain characteristics of the legal infrastructure of a country may create conditions that enhance new business creation. Thus, it is an exploration of the institutional determinants of entrepreneurship and the way these can affect the observed cross-country differences in the creation of new firms. Our main aim is then to perform an analysis of 195 constitutions, to single out the provisions that enhance economic freedom and are thus likely to create an institutional and legal setup favorable to new business creation. The relevant information on constitutions will be extracted from the *Comparative Constitutions Project: A Cross-National Historical Dataset of Written Constitutions* (Elkins, Ginsburg and Melton, 2009), a repository of valuable data on the formal characteristics of written constitutions for most independent states since 1789. Country-level data on entrepreneurial activity will be taken from the World Bank Group Entrepreneurship Database. The study will try to answer a question of primary importance for the analysis of entrepreneurship: Does the constitutional protection of principles and values which are usually associated with a country's endowment of entrepreneurship capital and presence of small firms positively influence the rate of new firm formation and the total endowment of entrepreneurship capital in that country? Should this question get a positive answer, one will be legitimated to recommend inclusion of provisions prone to entrepreneurship in the constitution of any country.

The remainder of this monograph is structured as follows. Section 2 discusses the importance of institutions in shaping the entrepreneurship capital of a country and favoring the emergence of entrepreneurial ecosystems. Section 3 describes how higher-rank formal institutions represented by actual constitutional provisions affect the design of lower rank norms and regulations of primary importance for economic activity. Section 4 outlines the features of 'economic constitutions', i. e. of constitutional provisions playing a key role in the management of a country's economy. Section 5 gives an overview of alternative measures of entrepreneurship and discusses their implications for empirical analysis. Section 6 focuses on the countries that have adopted the principles of 'economic constitutions' in their written constitutions and discusses the impact of the *de jure* and *de facto* implementation of such principles on entrepreneurship. Section 7 shows how the prevailing psychological traits of a country's population may shape the impact of constitutional

provisions on its proneness to entrepreneurship and sheds light on the relationship between constitutional provisions and the observed cross-country and cross-industry differences in labor productivity. Finally, Section 8 concludes and provides some recommendations for entrepreneurship policy.

2. Institutions and entrepreneurship: a critical overview

2.1 Institutions, the organization of economic activity and economic outcomes

The study of the impact of institutions on economic initiative and outcomes is well rooted in the literature. Differences in development and growth rates across countries are explained to a large degree by differences in the institutions that regulate the economy (Acemoglu, Johnson and Robinson, 2005). The latter are determined by political institutions (Eicher and Leukert, 2009). Economic institutions that favor growth emerge with political institutions limiting executive power and protecting property rights. Growth-enhancing political institutions tend to establish in societies in which rents are absent or very rare (Robinson, Acemoglu and Johnson, 2005).

From the viewpoint of an individual who is considering the decision to engage in entrepreneurship, the relevant institutional setup is represented by the bundle of political, legal, social, and economic conditions that either facilitate or hinder her decision. Although the various components of this institutional setup are external to the proximate focus of entrepreneurial action, each of them shapes what is ultimately legitimate, available, and feasible (Dorado and Ventresca, 2013). Needless to say, a key role is played by those granting protection to economic initiative, safeguarding the right to establish and conduct a business and securing property rights (Estrin, Korosteleva, and Mickiewicz, 2012; Estrin, Mickiewicz, and Stephan, 2013).

From a broader perspective, as recommended by Glaeser, La Porta et al. (2004) in their analysis of the role of institutions in economic growth, one may distinguish between two different views of the ignition factors of economic growth: one that emphasizes the crucial role of political institutions and of the legal mechanisms to secure property rights; and one that identifies the main driver in the accumulation of human, social, and physical capital.

Consistent with the first approach, new institutional economics (Buchanan and

Tullock, 1962; Williamson, 1985; North, 1991) suggests that the economic structure of a country is shaped by a combination of 'informal constraints' and 'formal rules' which may either facilitate or prevent certain activities such as the establishment of a new firm. In particular, Williamson (1985) identifies formal institutions as the "rules of the game" regulating the functioning of the economy. The purpose of these rules is to protect "property rights through the polity, judiciary, and bureaucracy of government, but also to regulate economic action through targeted legislation and fiscal policy" (Bylund and McCaffrey, 2017). Accordingly, market-supporting formal institutions may prove effective in fostering, or at least not hindering the rate of new firm formation. Besides, when considering the case of innovative and path-breaking entrepreneurship, one has to acknowledge the role played by the protection of intellectual property rights (Carbonara, Santarelli and Tran, 2016). Of course, this does not imply that the stronger the protection of intellectual property rights, the higher the rate of new firm formation is. In fact, when intellectual property protection is too strong, almost all rents from innovation accrue to those giant firms which account for the largest fraction of private R&D investment, with entrepreneurial firms and SMEs in general being limited also in their ability to exploit intra-temporal knowledge spillovers (Acs and Sanders, 2012). Paradoxically, too strong protection of intellectual property rights might result in an institutional setup favoring the status quo and constraining innovators and entrepreneurs (Elert and Henrekson, 2017).

Consistent with the second approach proposed by Glaeser, La Porta et al. (2004), new comparative economics (Djankov, La Porta et al., 2003; Lipset, 1960) submits *a)* that cross-country differences in institutional arrangements are determined by the endowment of human and social capital that characterizes countries and *b)* that institutions are endogenous.

Eventually, the primary driver of economic growth is the endowment of human and social capital, and institutions exert a second-order effect. This implies that there is not a unique institutional setting that favors the creation of new enterprises and that can be adopted by any country at any time with the same results. Rather, each country develops its own idiosyncratic legal and institutional settings, consistent with its specific characteristics. Interestingly, this idea seems prodromic to the concept of National Systems of Entrepreneurship and Entrepreneurial Ecosystems, that we will discuss at length below.

Borrowing from both approaches in the analysis of the drivers of entrepreneurship, Estrin, Korosteleva, and Mickiewicz (2012) and Estrin, Mickiewicz, and Stephan (2013) conjecture that social capital and certain formal institutions (e.g., strong property rights) jointly create an environment more favorable to entrepreneurial entry.

Baumol (1996) posits that the contribution of entrepreneurship to economic growth and productivity depends on how institutions affect the allocation of entrepreneurial activities between productive and unproductive ones. "[T]he rules of the game that specify the relative payoffs to different entrepreneurial activities play a key role in determining whether entrepreneurship will be allocated in productive or unproductive directions and that this can significantly affect the vigor of the economy's productivity growth. After all, the prevailing laws and legal procedures of an economy are prime determinants of the profitability of activities" (Baumol, 1990, p. 20). Highly innovative entrepreneurship is productive, whereas rent seeking, corruption, and organized crime are unproductive. Well-designed institutions, that encourage productive entrepreneurship, are historically linked to high growth and productivity (Baumol, Lithan and Schramm, 2006; Bukari and Anaman, 2021).

Institutions can also have negative effects on economic outcomes. Countries with heavy regulations have less start-ups, more corruption, and a bigger grey economy, even if the quality of the goods and services that they produce is not significantly lower. The more complex the required procedures to create new businesses and the longer the time needed, the worse a country's economic performance (Djankov, La Porta et al., 2002).[1] Minimum capital requirements and labor market regulations discourage entrepreneurship (van Stel, Storey and Thurik, 2007). Formal institutions that keep bureaucracy low, avoid time consuming procedures for start-ups, allow for efficient administrative and financial services, resource allocation and size of government are also conducive to an organizational setting favorable to the undertaking of successful entrepreneurial activities (Audretsch and Belitsky, 2017).

The relationship between institutions and the economy is further complicated by their coevolution. There is an empirically demonstrated connection between stages of economic development and entrepreneurship (Acs, Desai and Hessels, 2008). We can

[1] The latter result is not confirmed by van Stel, Storey and Thurik (2007), who find no evidence of an effect of administrative procedures and time to set up a new business on the rate of new firm formation.

distinguish three successive stages of development of a country. In the first stage, development is driven by sheer use of existing production factors (factor-driven development). Countries compete in production factor costs (particularly with low costs of labor) and specialize in the production of goods and services with low added value. In this stage, self-employment prevails, and we see the birth of small manufacturing businesses. In the second stage, development is driven by an increase in productive efficiency (efficiency-driven development). In this stage, countries invest to create human capital and learn to exploit economies of scale. Clearly, this implies that firm dimension increases, which decreases the importance of self-employment and small enterprises, and leads to a decrease in the number of entrepreneurs. Individual initiative is more difficult. Managerial ability, rather than entrepreneurial skills, impact economic outcomes. The third stage is characterized by innovation (innovation-driven development), which shrinks the manufacturing sector and boosts the services sector, opening the door, again, for the role of individual entrepreneurs and small businesses. What is interesting is that the transition from one stage to the next certainly depends on technological progress but also, once again, on the incentives that institutions provide to economic agents and changes existing institutions as well.

Within an evolutionary framework, the institutional setup of a country evolves with the emerging of new organizational forms. Elert and Henrekson (2017) challenge the idea of optimal institutional setups shaping subsequent stages of economic development. They maintain that institutions are subject to continual change, innovation, and adaptation to the competitive environment. In their view, the existing institutional setup often preserves the status quo, with the consequence that the appearance of path-breaking entrepreneurs and innovators may be hindered by the self-perpetuating features of institutions.

We challenge this idea, by submitting that certain institutional setups are not only intrinsically favorable to entrepreneurship and innovation, but they also lubricate the Schumpeterian mechanism of ‘creative destruction’. (Neo)liberal democracies provide an ideal context for exercising free will and the pillars of their legal systems (typically incorporated in their constitutions) protect the freedom of choice and action that are necessary to allow the emergence of new entrepreneurs able to act as agents of change who break with the established routines whenever a technological

revolution occurs and create the conditions for a paradigmatic shift in the production system. We will in fact argue that the protection of markets and the pursual of economic success has been a primary goal of neoliberal democracies and has oftentimes overshadowed the preservation of other (non-economic) rights.

2.2 Entrepreneurial ecosystems

We have so far discussed how institutions favor or hinder entrepreneurship. Economies with good institutions host successful entrepreneurs. Culture and social norms shape formal institutions (Carbonara, 2017). A society cherishing the values of entrepreneurship will create an institutional framework cradling business initiative and a flourishing economy will perpetuate good institutions.

It may therefore seem that, once the institutions that are most often associated to successful entrepreneurship are identified, policymakers should simply adopt them and entrepreneurship will thrive, irrespective of other factors, and of territorial characteristics.

This view is however partial. Entrepreneurship and institutions are not the only ingredients of a winning strategy. To start with, such a view overlooks both the role of territory in creating economic opportunities and the dynamics between territory and businesses (Boutillier, Carré and Levratto, 2016).

Why is territory a crucial element in business success? It is theorized that territories catalyze the main factors favoring entrepreneurial initiative and, within their boundaries, an alchemic mix happens, that enhances complementarities and creates the economies of scope and the synergies that account for a thriving economy (Wurth, Stam and Spigel, 2021). Within a territorial unit (be that a country or, to a smaller scale, a region, a county, or a city), a combination of human, organizational and institutional aspects occurs, that may facilitate and support the creation and growth of new business activities (Acs, Estrin et al., 2018).

These theories go along with the conclusions of the regional economics literature, which has generally found significant variations in the rates of new firm formation across regions and across countries (Audretsch and Feldman, 2004, Audretsch and Fritsch, 2002, Reynolds, Storey and Westhead, 1994). Many variables seem to explain such variations and to play a role in determining entrepreneurship in a particular region. For instance, Armington and Acs (2002) show that the rates of new

firm formation differ significantly across US regions. They prove that (among other things, like population growth and unemployment) industry density and human capital have a positive impact on the creation of new entrepreneurial ventures. The density of firm establishments in a region is likely to favor spillover effects, thus creating business opportunities for both existing and new firms. Human capital (measured by the share of college graduates) is important since the majority of new start-ups in the dataset consists of high-technology businesses. On the other hand, the size of the existing establishments has a negative impact, as a more concentrated market may deter entry. Last but not least, regional sectoral specialization is a key driver of both entrepreneurial and economic performance at the local level. As regions tend to specialize in and gain advantage from certain industries, a fraction of their endowment of entrepreneurial capital and of the value added by the various factors inputs within their territory is linked to their sectoral specialization.

Clearly, several of these variables are strictly related to the legal and institutional setting of the region (from both the normative and the economic policy point of view). Antitrust policy and competition law determine density and size of the existing establishment, whereas education policies affect human capital.

Elsewhere, Acs, Autio and Szerb (2014) argue that entrepreneurship is part of a "National System of Entrepreneurship", where entrepreneurial opportunities arise and are exploited in response to the interaction of individual attitudes, abilities, and aspirations with institutions (including, but not limited to, laws and regulations). Entrepreneurial potential is measured using a "systemic approach", which explicitly considers interactions between the components of the National Systems of Entrepreneurship. Interestingly, factors hindering system performance are also included (the “Penalty for Bottleneck” feature), since synergies can be negative as well as positive. For instance, “standardized” economic and industrial policies widely adopted in the western world seem to have a weak effect on economic initiative and entrepreneurship, hardly attracting new entrepreneurial talent, and mostly encouraging low-growth, one-employee firms with little R&D activity (Acs, Åstebro et al., 2016). Entrepreneurship needs therefore to be contextualized within the institutional and social framework. A "one-size-fits-all" principle risks the implementation of detrimental policies with poor effects, and the efficacy of rules depends also on technological progress and on the stage of economic development.

The concept of National Systems of Entrepreneurship thus defines a combination of human, organizational and institutional elements facilitating and supporting the creation and the growth of new business activities (Acs, Estrin et al., 2018).

The same idea embodied in the National System of Entrepreneurship is the basis of the concept of entrepreneurial ecosystems (Feld, 2012), and the notion of National Systems of Entrepreneurship is interchangeable with that of entrepreneurial ecosystems (Autio and Levie, 2017; Acs, Åstebro et al., 2016). To be precise, entrepreneurial ecosystems are a more general concept, as the territorial unit of analysis can be more or less expanded (country, region or even city). In fact, the Entrepreneurial Ecosystem can be also seen as an extension of the idea of *Business Ecosystem* originally introduced by Moore (1993), who in turn borrows from anthropology and biology. Successful firms "coevolve capabilities around a new innovation: they work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations" (Moore, 1993: 76). In Moore's view, a Business Ecosystem may cross several industries and encompass both the suppliers and the customers of a successful firm.

As very well put forward by Isenberg (2010), for Entrepreneurial Ecosystems to be successful, a pro-active institutional environment is a necessary precondition. This has the potential to turn a set of individual elements such as leadership, culture, capital markets, and open-minded customers that mingle in complex ways into a *combination* of elements that all together contribute to sustain entrepreneurship. That's why many governmental efforts go wrong if they address only one or two elements. Together, however, these elements turbocharge venture creation and growth (Isenberg, 2010).

Entrepreneurial Ecosystems, as well as National Systems of Entrepreneurship and Business Ecosystems, are not necessarily industry specific. They encompass a bundle of factors that are likely to create favorable conditions to the emergence of sequencies of new entrepreneurial ventures in different fields in the same territory. A region endowed with environmental conditions conducive to entrepreneurship might therefore be able to move into the *innovation-driven* stages of economic development (according to the definition put forward by Porter, 1990), no matter the sectoral specialization that will dominate each subsequent stage.

Describing the early development of the Silicon Valley entrepreneurial ecosystem, Adams (2021) suggests that it was made possible by a combination of factors that were present since at least the 1940s. These include federal agencies and local universities, as well as abundant financial resources, provided by both the San Francisco-based banks and by venture capitalists. They also include core services, such as attorneys with an in-depth knowledge of intellectual property law and its enforcement. This entrepreneurial ecosystem, originally developed for the agriculture, extractive, and transportation industries was subsequently able to support defense-based electronics and telecommunications and was eventually repurposed to match the requirements of the calculators, video games and personal computers industries.

Within entrepreneurial ecosystems, therefore, we have entrepreneurship, defined as the ability to exploit opportunities to innovate and to create new goods and services, and the environment, the context in which entrepreneurship is expressed.

We should however be very careful when defining a successful entrepreneurial ecosystem. A single local economic development episode, such as the emergence of a certain pattern of industry specialization, may not necessarily be related to the existence of an entrepreneurial ecosystem. Rather, the latter is a combination of factors that, by favoring the creation of new businesses, prove their ability to support different and somewhat alternative industrial clusters in subsequent periods. In this connection, specialized locational clusters such as the industrial districts (Putnam, 1993) that characterized some North-Eastern and Central Italian regions in the second half of the Twentieth Century represent a somewhat different phenomenon and should not be classified as entrepreneurial ecosystems. In fact, such stereotyped organizational structure, consisting of local networks of SMEs, develops institutional arrangements that are highly specific to and serve the purposes of the (manufacturing) industry that defines the district itself. Analyzing the successful evolution of the Italian eyewear districts - located in the province of Belluno, in the Dolomites mountains - Camuffo (2003) observes that the most significant transformation of this cluster over time has been the emergence of large, vertically integrated leading companies. The rise and the decline of industrial districts are not characterized by significant changes in the sectoral specialization of local firms, but rather by the evolution of its organizational structure. Whereas an entrepreneurial ecosystem is a

bundle of institutional arrangements likely to drive the process of new firm formation, the industrial district is a local system built to serve the purposes of a specific industrial cluster. As such, the life of an industrial district follows the same pattern of the corresponding industrial cluster. Regrettably, this difference between (local) entrepreneurial ecosystems and industrial districts is neglected in a large portion of the relevant literature, that tends to consider the two organizational structures as largely overlapping. This lack of perspective suggests that - while there is a relatively established agreement on the definition of entrepreneurship, that includes the ability to identify and exploit economic opportunities (Schumpeter, 1934; Shane and Venkataraman, 2000; Kirzner, 2009) - the institutional context surrounding entrepreneurship is a more subtle concept and a general consensus on which factors should be included in its analysis is slowly building in the literature.[2]

What appears to be a common understanding is that entrepreneurial ecosystems have a "holistic" nature (Boutillier, Carré and Levratto, 2016). Each factor exerts a specific (positive) influence on entrepreneurship (and not simply on the industrial specialization of a territory) but, taken by itself, is not able to explain in full the economic outcomes.

2.3 Institutions and government intervention in the ecosystems

The word “ecosystem” emphasizes that entrepreneurship takes place in a community of interdependent actors and focuses on the external business environment. Rather than concentrating on the firm, the attention is on the entrepreneurs and on the organizational, institutional, and social context in which they operate (Stam, 2015).

The idea is to look at how the system affects value creation. "System" refers to the way the production, distribution and consumption of goods and services are organized within a society, which consists of people and institutions. In the neoclassical view, the analysis merely looks at the optimal functioning of the markets, with the goal to reach allocative efficiency. In this respect, government intervention is justified by the need to correct market failures.

[2] A view consistent with ours can be found in the paper by Rocha and Audretsch (2022: 18) who claim that “…the entrepreneurial ecosystem places the entrepreneur and the entrepreneurship context at the focal point. By contrast, regional clusters and industrial districts are typically centered around existing companies”.

When we move to a framework in which innovation and entrepreneurial initiative are the main focus, the market ceases to be the only key element. Informal interaction and a shift from hierarchies to network becomes crucial, because it allows the exchange of information in a wider measure than what can be specified contractually or that can take place in a market exchange. The production and the accumulation of knowledge, the fundamental resource in modern economies, are made possible by an interactive and cumulative process embedded in a national institutional framework (National Systems of Innovation, originally developed by Lundvall, 1992, and refined in a book edited by Richard Nelson, 1993). Such systems comprise governments, universities, industries, firms, and their environment (Godin, 2009; Acs, Song et al., 2021). Consistent with this approach, the overall innovation process is the result of an ideal combination of technology-specific and nation-specific factors. Whereas the development of industries follows technology-specific patterns, the impact of innovation depends upon the institutional arrangements prevailing in the national economic environment. Therefore, rather than looking at allocative efficiency, we look at the presence (or lack thereof) of crucial elements in the pursuit of innovation (like financial institutions or financing types) and at their optimal interaction. This is what we could call "the innovations system approach" (Stam, 2015). The role of the government in this case is to make sure that all crucial elements are present and to remove potential system failures.

The theory of entrepreneurial ecosystems adds both to the neoclassical system approach, including the analysis of informal (non-market) and cooperative interactions and to the innovations system approach, taking the role of entrepreneurs out of the "black box". Interestingly, in this novel, more complex environment, the government has a smaller role. Market and system failures do not necessarily require intervention in an entrepreneurial ecosystem, since failures themselves may in fact become entrepreneurial opportunities in a Kirznerian sense (Elert and Henrekson, 2017), with entrepreneurship driving the process of equilibration (Kirzner, 1973). The government is however responsible for adjusting laws and regulations, for the application of policies for economic development and for implementing taxation and investment measures that are supportive of entrepreneurship. This is no easy task, possibly more complex than identifying the presence of pre-defined, standard market failures (market power, externalities, public goods) and apply pre-defined, standard

policies (antitrust rules, liability, public expenditure). Take, for instance, a national government trying to increase the number of new firms. Using the National System of Entrepreneurship approach, Lafuente, Acs et al. (2020) shows that legal and institutional settings favoring the rate of business formation tend to promote the creation of low value-added businesses, typically associated to low factor productivity. Only policies targeting innovative entrepreneurship and start-ups investing in the development of new technologies lead to productivity growth.

What are then the components of an entrepreneurial ecosystem? More specifically, what are the components that would determine, when combined together, the success of an entrepreneurial ecosystem and that, therefore, should be included in successful industrial policies?

With the purpose to disseminate some important findings of scientific research and to pursue political aims, the World Economic Forum (2013) lists 8 pillars for a successful entrepreneurial ecosystem. Although not relevant for the advancement of academic research, such statements testify how and to what extent some important research findings have influenced policy action. Each pillar of the entrepreneurial ecosystem has several components.[3] Thus, accessible markets, government and regulatory framework, education and training, and well-functioning financial markets are listed among the main pillars for successful ecosystems. Among the components of the government pillar, we have the ease to start a business, and business-friendly rules and policies. Among the components of the education and training pillar we have the workforce with pre-university and university education. We will include all these factors in our analysis below.

On top of all that, norms and institutions favoring trust and trustworthiness improve entrepreneurial ecosystems (Audretsch and Belitsky, 2017). Trust reduces the cost of contract enforcement, increases economic exchanges and is therefore likely to impact positively on growth (Zak and Knack, 2001; Argentiero, Cerqueti and Sabatini, 2021).

[3] The entrepreneurial ecosystem pillars, according to the World Economic Forum 2013 are: accessible markets, human capital, funding and finance, support systems, government and regulatory framework, education and training, major universities, cultural support (Stam, 2015, p. 1763).

Psychological traits are important determinants of entrepreneurial activity and success (Leutner, Ahmetoglu et al., 2014; Obschonka, Stuetzer et al., 2015; Stuetzer, Obschonka et al., 2016) and might affect the effectiveness of public policies in a significant way. Using the concept of agency to represent entrepreneurship[4], Acs, Estrin et al. (2018) tries to establish whether the conjunction of entrepreneurship and institutions (which form an ecosystem), can explain cross-country differences in economic growth. They explore, conceptually and empirically, the complementary combination of agency and institutions in a unique entrepreneurial ecosystem. They find that such combination can explain the existing differences in economic growth rates across 46 countries. Entrepreneurship and institutions are interdependent components of a system and the system as a whole, not its single parts, can explain differences in growth rates. In other words, it is the combination, the ecosystem, that determines the economic performance of a country. For given level of agency, there are institutional contexts that are more or less favorable to the birth and growth of new enterprises, whereas such institutional contexts, per se, cannot guarantee the success of entrepreneurial initiative. What counts for economic outcome, are complementarities.

It is once again important to stress the need to develop a coherent theory of entrepreneurial ecosystems, that highlights how the interplay of the various factors characterizing a given geographical region yields successful (or non-successful) entrepreneurship. Without such theory, the danger is to provide a list of facilitating factors and to encourage policymakers to just import what are believed to be best practices from successful ecosystems, without considering the "underlying local and cultural attributes on which their success depends" (Spigel, 2017). By looking at the interdependencies of cultural, social, economic and policy elements, it is possible to understand how they shape the ecosystem, "providing resources to new ventures that they could not otherwise access" (Spigel, 2017). Moreover, an evolutionary perspective might help. Ecosystems should be viewed as dynamic processes in which entrepreneurial resources are created and developed through the interaction of evolving factors (Spigel and Harrison, 2018). It is then very likely that researchers will realize that there are multiple ways an ecosystem can be organized, i.e., multiple elements that can explain local success stories. Not all elements should be present at

[4] Agency is the ability to transform the external environment (McMullen, Brownell and Adams, 2021).

the same time in a thriving ecosystem, nor there is a single element that is essential and indispensable. Success stories can therefore be the most varied.

One thing, however, seems to be constantly playing a role: the presence of social networks and institutions that incentivize, facilitate and encourage cooperation and knowledge sharing and diffusion, together with an organization of the productive sector allowing consistent knowledge spillovers. A major player in knowledge creation and diffusion, in the development of an entrepreneurial culture and in the training of talent are universities and the presence of universities seems to constantly characterize successful ecosystems (Audretsch, Falck et al., 2011, Feldman, Francis and Bercovitz, 2005, Wolfe, 2005).

Finally, entrepreneurial ecosystems have precise geographical and physical boundaries, since the entrepreneurs tend to consider mainly the local level when making their decisions (Stuetzer et al., 2016). The potential individuals identify in regions and cities is a main element in their evaluation of opportunities (Audretsch and Belitsky, 2017).

The analysis of entrepreneurial ecosystems still presents problems that need to be addressed in future research. The literature review reveals that it is still a tautological theory. Good entrepreneurial ecosystems produce successful entrepreneurship, so, where entrepreneurship is successful, apparently there is a good entrepreneurial ecosystem. "Such tautological reasoning offers little insight for public policy" (Stam, 2015). Research so far produced only long lists of relevant factors, without a clear analysis of cause and effect (Wurth, Stam and Spigel, 2021).

We also noted the lack of a clear indication of the optimal territorial size of ecosystems. We have success stories related to cities and others related to bigger regions or even countries, but no indication of whether and in which cases the actual dimension of existing ecosystems is the "efficient" one or rather an intervention to ease (or set) boundaries would improve performance. This particular aspect resembles the analysis of relevant markets in antitrust. The relevant territorial unit corresponds to the size that maximizes positive spillover effects and complementarities. This is relatively easy to prove theoretically but the empirical methodology to measure the strength of spillovers and complementarities as the territorial size varies is less obvious and needs further research.

Moreover, as mentioned above, the study of the World Economic Forum (2013) concludes that access to markets, education and well-functioning financial markets are most important for the growth of entrepreneurial companies. This statement is however superficial, since human resources and finance depend on the underlying institutions regarding education and financial markets. A vast majority of the cited literature is lacking a proper analysis of the institutional factors, mainly of the legal rules shaping and designing markets. We provide a solution to this shortcoming, proving that legal rules also play a major role, besides local policies and rules affecting local markets. These general rules not only provide the institutional framework in which firms operate locally and constrain the rules that local governments can design (as hierarchically superior legal norms cannot be overruled and overturned by lower-rank norms, Kelsen, 1967), but they also concur to create and maintain a social and cultural environment supportive of entrepreneurial initiative (Carbonara, Santarelli and Tran, 2016).

The entrepreneurial ecosystems literature has the merit to show us that what counts for economic outcomes is not the presence of one or another element or component, but their complementarities.

From a policy point of view, this has straightforward and definitive implications. The adoption of public policies to favor entrepreneurship might not exert the desired results if the institutional context is not the right one. For instance, importing the industrial policies from other countries is not a guarantee of success, unless also the institutional framework and, last but not least the social and cultural conditions are similar.

In this respect, it is no surprise that the entrepreneurial ecosystem approach reaches conclusions similar to the literature on legal transplants. Legal transplants consist in the introduction, in national legal systems, of statutes and principles belonging to other systems, be they legal rules of other countries or customs whose acceptance is widespread (Mattei, 1997; Sacco, 1991; Watson, 1995). Legal transplants, while guaranteeing a better harmonization of legal systems across countries (also with the aim of decreasing transaction costs between commercial partners), may also have heavy drawbacks (Carbonara and Parisi, 2007 and 2009). Unless transplanted rules are sufficiently close to the original law and fit the country's legal system as a whole,

"countries that transplant the law have less legal order than "origins" (the so-called "transplant effect", Berkowitz, Pistor and Richard, 2003). Legal harmonization and unification are seen as a threat to the legal culture and history of a country and society might simply resist the proposed legal transplant (Legrand, 1997).

The conclusion is that an ecosystem will not be ideal for entrepreneurial effort and will not create much economic value, unless all the components of the ecosystem not only fit together nicely but they are also internally consistent when taken individually. Of course, the component that most of all risks of being internally inconsistent is the institutional one. Albeit no one has looked at this particular aspect so far (which requires future research), the more inconsistent the institutional pillar in the ecosystem is, the weaker the synergies among the various components are likely to be.

One way to ensure internal consistency of the legal system is to enshrine the fundamental economic principles that the legislator deems indispensable in the constitution. Given the hierarchical predominance of the constitution as a source of law and the constraint it represents for lower regulatory levels, this should guarantee consistency. Moreover, constitutional principles very often reflect social norms, widely accepted customs and shared social principles. This should add a further layer of consistency to the entire legal system that cannot contain norms and principles driving away from those in the constitution.

It is now about time to start the analysis of constitutions (and economic constitutions in particular).

3. The economic impact of constitutions

3.1 Why should constitutions affect the economy?

In this contribution, we focus on the legal institutions that are likely to exert direct and indirect effects on entrepreneurship. Our focus is on the higher-rank formal institutions represented by actual constitutional provisions affecting the design of lower rank norms and regulations in areas typically deemed in the sphere of competence of the economic constitution (such as the protection of property rights

and the fulfilling of quality requirements), that we will discuss in detail in Section 4 below.

In this contribution, we study the impact of laws (constitutions and lower-rank norms) on entrepreneurship. The underlying idea is that laws, regulations and, more generally, institutions determine entrepreneurship.

Consistent, among others, with Estrin, Korosteleva, and Mickiewicz (2012), Estrin, Mickiewicz, and Stephan (2013), Williamson (2000), and Kelsen (1967), one may argue that legal institutions can be ranked according to a pecking order in which constitutions represent the higher-order regulatory institutions 'authorizing' the creation of lower-order ones. We take Kelsen's (1967) perspective and assume that a country's constitution is a combination of 'higher' norms making the whole creation of hierarchically subordinate ones possible. Accordingly, 'lower' ordinary norms conform to and cannot oppose higher, constitutional norms. As emphasized by the public choice literature, the specific rights enumerated in constitutions shape rate and direction of the development of the institutional framework of countries (Buchanan and Tullock, 1962; Melton, Elkins et al., 2013). Linking this view with the analysis of Audretsch and Moog (2022), one may therefore argue that the more a constitutional setup is favorable to the undertaking of entrepreneurial activities the more likely it is that a country will exhibit a favorable economic performance besides preserving the pillars of democracy.

3.2 *De jure* and *de facto* constitutional protection

Is constitutional law effective? In other words, are constitutionally protected rights respected in practice? The answer to this question is not obvious and has engaged scholars for a long time.

When looking at a constitution's ability to protect the rights of the citizens, the first citation goes to James Madison, who believed that constitutional provisions represented just "parchment barriers" with unreliable efficacy: "[...] the efficacy of the provision has been greatly overrated; and that some more adequate defense is indispensably necessary for the feebler, against the more powerful members of the government" (Madison, 1788). Courser, Helland, and Miller (2018) are of the same opinion: "The provisions of our Constitution are like "parchment barriers"—fragile bulwarks intended to preserve liberty and promote self-government. To be effective,

these barriers need to be respected and reinforced by government officials and ordinary citizens, both in law and in custom. [...] [T]oday's partisan polarization is threatening these constitutional provisions and thus our constitutional order."

In general, it is believed that formal protection of rights will result in effective state protection. This is debatable: for example, it is commonly held that the current term of 20-year duration for patents guarantees adequate protection and investment incentives, even if patents are on average effective for much less than 20 years (Rockett, 2008). Governments should be less willing to abuse rights that are expressly protected in enacted laws, especially if they are at the constitutional level. However, numerous scholars doubt that constitutions provide more "window dressing" than substantive protection of rights (Keith, 2012).

More than ninety percent of nation states nowadays have a written constitution (Elkins, Ginsburg and Melton, 2009). The last half of the twentieth century has seen the promulgation of almost 100 new constitutions, mainly in countries that achieved independence from colonial status. By the 1990s, postcolonial constitutions, together with those of the ex-Soviet countries, made up more than four-fifths of the constitution of the world. (Keith, 2012).

Formal constitutional guarantees of human rights are not necessarily indicators of their *de facto* respect. Cases of national constitutions providing for the protection of specific rights, that are then significantly restricted by governments in practice, are common. What's more, the extent to which rights provisions are implemented *de facto* tends to vary significantly across nations.

So much empirical literature has proven that many countries have a record for neglecting implementation and protection of their own constitutional rights. Sometimes, constitutional guarantees are indeed predictors of rights abuse. This is the case, for instance, of freedom of the press and habeas corpus (Keith, 2002). Chilton and Versteeg (2015) prove that constitutional torture prohibition, which is becoming more and more frequent worldwide, has not produced a statistically significant reduction in the diffusion of torture. Keith (2002) finds that a constitutional ban on torture is associated with higher prevalence of torture.

Chilton and Versteeg (2016) observe that "organizational rights" are respected whereas other individual rights are not. They claim this happens because

organizational rights (they consider the right to unionize and form political parties) create the very same organizations that will protect these rights.

Another very common constitutional provision is judicial independence. Two-thirds of the constitutions of the world protect the independence of the judiciary to some degree. However, *de jure* constitutional protection of judicial independence is hardly correlated with *de facto* protection (Law, 2010). After controlling for wealth and education, Feld and Voigt (2006) find that legal protection of judicial independence is not a good predictor of actual protection. Interestingly, Keith (2012) proves that nation states characterized by judicial independence are substantially more likely to protect a variety of rights. Independent courts are associated with greater respect for human rights.

Generally speaking, empirical evidence shows that constitutional provisions relative to the scope of legislative power tend to be closely respected, whereas there is a looser match between the constitutional text and the actual implementation of individual (human) rights (Elkins, 2009).

Finally, most studies on the implementation of constitutional provisions deal with human and personal rights, whereas little has been said about the actual application of constitutional economic rights and their effect on economic outcomes.

Among notable exceptions we find Persson and Tabellini (2003, and 2006), whose focus however is not, strictly speaking, on economic rights, but on the constitutional principles regulating the organization of the state and the exercise of power and their effect on economic related variables. Results indicate that presidential systems and majoritarian electoral rules result in much lower government expenditure than parliamentary and proportional systems. Their studies have been extended and partially confirmed by Blume, Müller et al. (2009) and Blume, Müller, and Voigt (2009).

Considering the role of the constitutions and the legal system in a way that is consistent with the path traced by Persson and Tabellini's contributions, Melton, Elkins, et al. (2013) observe that certain features of constitutions, including their degree of specificity and the number of rights for which they provide protection, play a role in shaping the patterns of institutional development exhibited by different countries at different times. Eicher, García-Peñalosa and Kuenzel, (2018) consider

how constitutions impact on social infrastructure, which is typically seen as one of the drivers of economic growth. They find that the extent to which a constitution constrains the decision-making powers of chief executives together with the electoral system are the main determinants of good-quality social infrastructure, which is also positively impacted by basic human rights.

Carbonara, Santarelli and Tran (2016), Carbonara, Santarelli et al. (2018) and Carbonara, Gianfreda et al. (2021) consider various constitutional provisions protecting economic rights (many of which typically included in the so called "economic constitutions"), including the right to free markets, the right to establish a business, the protection of intellectual property rights, the right to access various levels of education and many others. They find that, generally, controlling for *de facto* implementation, constitutional inclusion of such rights has a positive effect on economic outcomes, especially entrepreneurship and labor productivity. Their results are presented and discussed in more detail in Section 6 below.

3.3 Obeying and evading the law

We have just argued that constitutional protection of economic rights tends to have a positive impact on economic variables, like the rate of new firm formation and labor productivity. However, as we discussed in Section 2, the impact of institutions can be of two types: some institutions tend to facilitate economic initiative, while others hinder it. Shifting focus from institutions in general to legal norms, there might be the implicit idea that there exists an optimal set of legal rules and institutions that maximize both the prevalence and the quality of entrepreneurship (Mokyr, 1998).

However, according to the Schumpeterian and evolutionary views, such ideal setting cannot exist. In an innovative and evolving productive system, also the ideal setting evolves. In general, institutions evolve more slowly than the productive system (Downes, 2009). So, it is more likely that institutions slow down innovation and entrepreneurship rather than optimizing it. This would be especially true for constitutional law, that can be changed only by means of special procedures, requiring parliamentary supermajorities and political compromise and negotiations, often followed by a confirmative referendum. It would then be a good practice to give constitutional status only to very general economic provisions, to maintain a certain degree of "institutional flexibility" that might not only foster innovation and the

creation of value, but also help in periods of economic downturn. As we are going to discuss in Section 4, the 2008 crisis and the Covid-19 pandemic have challenged economic constitutions around the globe.[5]

Besides innovation, another element that could lead to bad laws and sluggish change is agents' bounded rationality. Boundedly rational individuals use heuristics to make choices (Kahneman, Slovic and Tversky, 1982). Agents may then refer to norms, customs and traditions in their decision-making, as those represent a handy and salient shortcut, independently of their inherent efficiency. The agents' irrational behavior might influence the link between institutions and entrepreneurship both in their response to it, and in the enactment and implementation of new laws. Legal innovation may be very conservative, as lawmakers could cling to existing social norms and customs. On top of all this, people tend to sanction those who deviate from formal and informal institutions (Boyd and Richerson 1992).

Legal and institutional settings can be used also to thwart innovation. Often, in a process of creative destruction, some producers, damaged by certain innovations, can oppose them. To do that, they form special interest groups and use "non-market means" to block the innovation. They might also advocate the implementation of laws and regulations barring the innovation in question (Elert and Henrekson, 2017, page 5).[6]

An interesting insight is that often institutions are complementary and the positive impacts they exert on economic outcomes are mutually reinforcing. This is what happens with entrepreneurial ecosystems, as discussed above. Then, when institutions are complementary, changing them might be difficult, since evaluating the final effect of change on economic variables becomes problematic. As Elert and Henrekson (2017) put it, complementarities "freeze" the status quo and challenge the very idea of Schumpeterian creative destruction. Innovations improving over the state-of-the-art technology might not be able to succeed because of sticky blocking norms and regulations.

[5] A notable example is the European economic constitution, where the Stability and Growth Pact has been suspended. Similarly, the UK has adopted actions violating constitutional norms (Prosser, 2014).
[6] Such innovation-barring regulations can hardly be included in a constitution, since, as already mentioned, approving constitutional rules requires special procedures, enactment requires a long time, and constitutions are generally not easy to manipulate by special-interest groups.

What happens then, when a Schumpeterian entrepreneur is opposed by competing producers whose product would be driven out of the market and faces blocking norms and institutions? A possible strategy is to recur to "evasive entrepreneurship", that is, the entrepreneur could "circumvent the existing institutional framework" (Elert and Henrekson, 2017). This strategy includes numerous illegal and unethical behaviors, spanning from tax evasion to the use of bribe payment to circumvent cumbersome regulation and bureaucratic demands on business operations. Inasmuch as institutions are not necessarily good and efficient, circumventing them would not necessarily imply damaging growth and development.

"Why would Schumpeterian entrepreneurs merely adjust to prevailing institutions if they could earn profits by using their innovations to circumvent them? In addition, why would Kirznerian entrepreneurs act as arbitrageurs with regard to market prices but not with regard to institutions?" (Elert and Henrekson, 2017, page 18).

Thus, if entrepreneurs have the opportunity to evade regulations and institutions, they act as Kirznerian entrepreneurs, exploiting new opportunities by means of playing around the rules.

Elert and Henrekson (2017) point out that evasive entrepreneurship is more or less likely when institutions are neutral (they do not overlap), complementary (they reinforce each other), substitutes (they weaken each other) or conflicting (they say different and irreconcilable things). For instance, conflicting rules would present the greatest opportunities for evasive entrepreneurship when they are applied to different areas, cities or countries. Entrepreneurs will then locate in the more permissive area.

Good opportunities for evasive entrepreneurship can also ensue from norms enacted *de jure*, but not followed by *de facto* enforcement. In this case, in fact, the costs of violations are very low. It may also happen that *de facto* enforcement is suspended in special cases. For instance, regulators will not enforce the relevant laws if they believe those innovations are key to economic development, or simply the entrepreneurs have good political connections or the money to "work with the regulators" (Elert and Henrekson, 2017, page 28).

Finally, entrepreneurs can engage in activities that impact institutions, in a bidirectional view of the relationship between entrepreneurship and institutions. They can engage in "institutional entrepreneurship", lobbying to change unfavorable or

blocking norms and regulations. In this regard, the entrepreneur would also act as a "norm entrepreneur", where the expression indicates "people interested in changing [...] norms" (Sunstein, 1996, page 903). Albeit a norm entrepreneur has been considered by the scholarship as someone willing to change social norms, a similar function can be performed in case of legal norms and regulation. By showing to the society (in this case, to politicians and consumers) the value of the innovation and the importance to change rules to allow its diffusion, the norm entrepreneur can reduce the social cost from legal violations, gain people's support and make it more likely that regulators choose not to enforce blocking rules (Carbonara, Parisi and von Wangenheim, 2008 and 2012).

The theories presented in this Section show that a healthy economic system needs a flexible and adequate institutional and legal setting. A key requirement in this sense is that the skeleton of the legal system (mainly formed by the constitution and the economic constitution in particular) is general enough and sufficiently open to market forces, while providing protection for the stakeholders that might suffer losses in the process of creative destruction (in particular, workers and consumers).

In the next Section, we will introduce the concept of economic constitution, defining it, describing its content and its historical evolution across countries, as well as the special meaning and the role it plays in Europe.

4. The Economic Constitution

4.1 What is the economic constitution?

The concept of economic constitution has its origin in the interdependence of the economy and the government. We have stated above (Section 2.2) that there is a need of government intervention in case of market failures and that public policies and regulations are often required to enhance frequency and success of entrepreneurial activities. Government intervention is also needed, traditionally, to correct for social injustice and to protect human rights. More recently (since the 2008 financial crisis), also issues related to economic stability and solvency of the banking system have been solved by public intervention, which brought to the imposition of limits to

national fiscal policies and to the need of cooperation between states, imposing further limits to budget spending by single countries.

It is therefore clear that government intervention consists of both regulations implemented to correct for possible market malfunctioning, and of direct public economic management (like management of public expenditure or even nationalization of core economic and financial activities). Such policies and regulations are implemented by a network of national bodies (such as government departments) and by independent authorities working in strict relation with government institutions. In this already complex picture, trans-national organizations, among which the European Union (EU) and the World Trade Organization (WTO), play a role too.

There is therefore the need to guarantee the legitimacy of government involvement in the economy, both in terms of the type and extent of intervention and of its execution (in particular, which bodies and organizations are in charge). Since this is a very delicate and politically charged matter, legitimacy is typically given by a country's constitution. This is indeed one of the functions (and, as a matter of fact, of the definitions) of the economic constitution and a justification for its existence (Prosser, 2014).

To be precise, the economic constitution may be defined as the set of constitutional rules relevant to economic relations and interactions and to market functioning, such as provisions directly related to business, markets, and property. The definition of economic constitution, however, can be broadened to include rules of constitutional rank. Eventually, a complete definition of the economic constitution "includes mainly legal instruments, rules and practices related to economic relations and businesses. But it is not limited to this, since it has to take into account other aspects, like social and cultural ones: for instance, health care and education, which involve expenditures" (Cassese, 2021, p.4, our translation).

The 'Economic constitution' of a country, therefore, is the section of the constitution that contains the provisions which aim at regulating the management of a country's economy, plus other related norms of constitutional rank, plus rules and practices dealing with the economy and with social and cultural aspects that involve public expenditures. It includes those non-negotiable economic principles that should not be

exposed to the fluctuations determined by political change, like economic freedom, competition, price stability, monetary policy (Prosser, 2014). From such a perspective, the economic constitution is the result of an action aimed to protect investors from unexpected adverse events and to spread confidence among the economic agents to promote capital accumulation (Prosser, 2014; Gill, 2005)

In modern constitutions, a key function is played by the provisions regulating the government's direct economic management of a country, promoting and strengthening the rule of law and, more generally, establishing a legal and institutional setting protecting economic rights and the functioning of the free market mechanism.

It is quite interesting to notice that the economic constitution evolves over time. The relationship between state and market changes in different historical periods. For instance, Cassese (2021) identifies four different historical stages in Italy, starting from 1861, year of the unification of the Italian state, till the present days. Apart from the initial stage, that took place in the last thirty years of the 19th century, Italy has been traditionally characterized by a high degree of State intervention and direct involvement in economic activities. This tradition was reverted in the 1980s, with the advent of the so-called "new economic constitution", when European integration on one hand and the raising forces of globalization on the other brought new principles to the fore: competition, free trade and free movement of people, prohibition of state aids and legal harmonization of market discipline.

The new economic constitution has been seriously challenged by the 2008 financial crisis first and then by the Covid-19 pandemic. Both crises demanded a more active public intervention in economic matters, like nationalizations and a more extensive use of state aids. The Covid-19 pandemic has also weakened the globalization forces, reducing the volume of international trade and redefining the global value chains, affected by reshoring phenomena (Cassese, 2021).[7]

In the UK, the response to the 2008 economic crisis often involved actions "which violated existing domestic constitutional norms" (Prosser, 2014, page 18). This to

[7] It should be noted that formal constitutional principles have changed very little or not at all, the main formal change being the introduction of a balanced budget rule in several countries (for instance, in 2008 in France, in 2009 in Germany, and in 2012 in Italy).

prove that constitutions are mainly "living beings", reflecting changes in the "legislative public opinion" (Dicey, 1885).[8]

So far, we have dealt with a more descriptive, positive definition of the economic constitution. An alternative, popular definition is associated to the German "ordoliberalism" movement, dating back to the post World War II period. According to the ordoliberalists, the characteristics of an economic system must be determined by the political constitution and by the laws enacted according to such political constitution. The main idea in this approach is that the market is not the only determinant of the economic system of a country. Indeed, the market and its mechanisms are not independent of the political acts of the government and of legal decision-making. According to the ordoliberal principles, therefore, "[l]aw would provide basic principles of economic conduct, and government officials would not have discretion to intervene in the economy except for the purpose of enforcing those principles" (Gerber, 1994, p. 46). So, the first step is to identify the core principles that countries want to see reflected in their markets and then incorporate them in their constitution. This strongly limits the ability of politicians to change the rules governing the economy and their discretion in choosing the form of intervention, since, as mentioned before, lower-rank norms must abide by constitutional ones and cannot overturn them, plus it is technically very complex to change a constitution and it requires a vast parliamentary consensus.

What are then the principles the ordoliberals wants the economic constitution to protect? The main principle is the establishment and maintenance of a condition of "complete competition", a condition that would allow a "transaction economy" to work efficiently. According to ordoliberal scholars, "economic science would describe the conditions of complete competition, and this information would provide the standards for legal decision-making" (Gerber, 1994). Technically speaking, the principles introduced in the constitution can be “constitutive” (which have the power to enact or establish rights, like, for instance, private property or the right to establish a business) or “regulative” (i.e., they regulate the application of the constitutive norms). Among the fundamental constitutive principles that should inform the

[8] Dicey's 1885 book "Lectures Introductory to the Study of the Law of the Constitution" is considered part of the English Constitution (https://www.britannica.com/biography/Albert-Venn-Dicey#ref47808).

economic policy for a transaction economy we find monetary stability (the need to maintain the value of money, avoiding inflation), open markets, private property, contractual freedom, civil liability, and policy consistency (that is, to avoid frequent changes in economic policy). There were then regulative principles, with the aim to implement fundamental ones. In this respect, competition law derived from the constitutive principles of open markets and contractual freedom. Since the ordoliberals believed in the separation of state and market, they advocated the application of the principles of competition by an independent antitrust authority (cartel office), supervised by the judiciary to ensure compliance with the economic constitution (Prosser, 2014). They also advocated a strong state, albeit constrained by the law in its actions.

A completely different meaning of constitutions, that possibly overturns the traditional view (including ordoliberalism) can be found in the so called "new constitutionalism" (Anderson, 2012, Gill, 2005). Constitutions are no more a protection for individual rights, but a constraint on democracy (Prosser, 2014, page 11). The goal of constitutions has become that of protecting the property rights of investors and corporate capital, to reduce uncertainty and to enhance government credibility and investor confidence (Gill, 2005). "New constitutional" principles are implemented to protect "neo-liberal" economic policies and are advocated by supranational institutions, such as the World Bank, the World Trade Organization (WTO), the European Union (EU) and the European Convention of Human Rights (Nicol, 2010). This form of "[e]ntrenched neo-liberalism has severely limited the opportunities for national governments to choose substantive economic policies" (Prosser, 2014, page 11) thus greatly reducing parliamentary sovereignty

According to new constitutionalism, investors, whose capitals are mobile in a globalized world, have become the "sovereign political subject" (Gill, 1998). Markets have their inherent mechanisms, and they discipline policy makers and other economic agents. Policy rules cannot go against the disciplining forces of markets. They should simply make sure that market discipline can express itself without limitations, as putting limits to market forces might have very bad consequences for a country's economy. This is very well represented in the IMF's 1997 World Economic Outlook, as quoted by Gill (1998, page 25): "The discipline of global product and financial markets applies not only to policy-makers, via financial market

pressures, but also to the private sector, making it more difficult to sustain unwarranted wage increases and mark ups. If markets adopt too sanguine a view of a country's economic policies and prospects, however, this could relax policy disciplines for a time and result in a high adjustment cost when market perceptions change ... [and then] markets will eventually exert their own discipline, in such a way that the time period for adjustment may be brutally shortened." Thus, the main political and economic goal for governments is to promote legal measures that facilitate market forces, eliminating all obstacles to market discipline. On the one hand, decision makers should adopt and promote free market policies. On the other hand, institutions should be designed so that there is an actual separation between political decisions and the economy. For instance, macroeconomic policies and market regulations are implemented by independent central banks and by technocrats. To further the goal to "protect capital from popular democracy" (Gill, 1998), surveillance mechanisms by international organizations (e.g., the IMF) or by private agencies (Moody's, Standard and Poor) are implemented. The economic areas of policy are therefore taken away from democratic participation and accountability.

Should the institutional setting consistent with this theory drive to the creation of a competitive environment able to preserve the function of entrepreneurship and small firms in general or be likely to strengthen the market power of large conglomerates is not easy to figure out. Some doubts remain that a markedly pro-investor constitution might contain the antibodies necessary to limit the undesirable effects of market failures on free entry and the ability of small firms to survive. In such a context, liability of smallness (Freeman, Carroll and Hannan, 1983) and liability of newness (Stinchcombe, 1965) are likely to exert their detrimental impact on firm and industry dynamics.

Since, as explained by Stinchcombe (1965), industry-specific organizational models emerged in different periods can co-exist at present time – taking textiles and the automobile industry as example – one cannot exclude that they differ in terms of firm demographics, with firms under the ‘new’ organizational model being characterized by higher likelihood of early exit. In general, “new organizations suffer […] a greater risk of failure than older organizations, because they depend on the cooperation of strangers, have low levels of legitimacy, and are unable to compete effectively against established organizations” (Hannan, Carroll and Freeman, 1983: 692) and this

“liability of newness” can be exacerbated by an institutional setting intrinsically favorable to maintain the ‘status quo’. Hannan, Carroll and Freeman (1983: 705) broaden this view, stating that “liability of newness may really be a liability of smallness, because new organizations tend to be small and small organizations have high death rates.” Accordingly, an economic constitution aimed at removing any obstacles to market discipline might ultimately endanger the survival of new and small firms, particularly in those circumstances in which they act as agents of change bringing in new organizational models.

4.2 The economic constitution of Europe and the "priority" of the market

A major role is given nowadays to the economic constitution of the EU, since a lively debate is taking place both about the values protected and the lack of democratic participation of European citizens in the policy making process. Before discussing the content of the constitution of the European Union, it is important to stress that the dominant view among lawyers is that the Treaty has undergone a process of "constitutionalization".

The Treaty was implemented as an international agreement, establishing a community of states. Member States had not the intention to write a constitution that would go alongside with their national constitutions. The interpretation of the Treaty by the European Court of Justice, together with successive Treaty amendments that have codified the Court's case law, have however brought to the identification of the Treaty as a European Constitution (a material constitution, as opposed to a formal constitution, that would be the text of the Treaty). This approach leads scholars to expect that inevitable attempts to bridge the gap between material and formal constitution will lead to further constitutionalization of the Treaty (Sauter, 1998).

Originally, the European economic constitution was considered ordoliberal. Such inherent nature was proven by the separation of market and state. As with the ordoliberal tradition, the main "principle" to protect was competition. The EU constitution implements this fundamental principle by adopting a twofold structure. At the European, supranational level, it applies the principles of economic rationality and pursues "undistorted competition".[9] At the level of the member States, it deals

[9] Together with supporting other principles cherished by ordoliberals, like anti-discrimination rules and the opening of national economies (Joerges, 2005).

with redistributive and social policies. Thus, Europe was designed as a "dual polity", where its constitution was separated from national political intervention and social policy was devised as a completely separated subject and left to national legislation and intervention (Joerges, 2005).

Things started changing in the mid-1980s, with the Delors Commission's "White Paper on Completion of the Internal Market".[10] It is widely believed that the Commission's Internal Market initiative institutionalized the use of the concepts of economic rationality and efficiency in the project of European integration, with the praise of ordo-liberal scholars. However, the White Paper gave also prominence to the principle of mutual recognition, which was feared to stimulate regulatory competition, and exposed national legislation to economic rationality tests. As a matter of fact, rather than focusing on market failures and impediments to competition, the European Commission started scrutiny of Member States regulatory failures (a task performed by the European Court of Justice), together with an aversion for the use of state aids (Joerges, 2005). The result were pressures for deregulation and privatization. In addition to this, the debate and negotiations that led to the adoption of the Maastricht Treaty in 1992 brought other objectives to the fore and competition became just one among several competing objectives. In particular, "social regulation" became a concern (with the predominance of environmental protection and health and safety of consumers and workers). The competences of the European Union widened, constituting a further and significant disempowerment of nation states. This has brought scholars to criticize the ordoliberal view, that would not consider the manyfold political values in the Treaty. Economic freedom and efficiency are by no means the main objectives of the Treaty, that includes also social and redistributive values (Maduro, 1998). It is therefore wrong to assume that the principles of economic freedom and efficiency are the only means to interpret the concept of economic constitutional law and to fill gaps in the Treaty. Non-economic values and inferences from the constitution as a whole should also be used (Cruz, 2002). The 2007 Treaty of Lisbon has further consolidated the social dimension of European Integration.

[10] EC Commission, "Commission White Paper to the European Council on Completion of the Internal Market", COM(85) 310.

Interestingly, objections against the Maastricht Treaty were brought to the Constitutional Court in Germany. In its response, the Court legalized European Integration.[11] In doing that, the Court followed typically ordoliberal arguments, contending that economic integration was essentially a "non-political phenomenon occurring autonomously outside the Member States" (Joerges, 2005, page 21). The Treaty, in fact, contained only provisions related to price stability and to disciplining measures in case of excessive fiscal deficits, which did not push further the question of democratic legitimacy. Embodied in the original project of the European Community was the idea that Europe would be a "market without a state", whereas its Members are "states without markets", a result in the wake of the ordoliberal "decoupling" of state and market. (Joerges, 1996).

According to several commentators, the Maastricht Treaty was the end of the ordo-liberal "economic constitution" (Joerges, 2005, page 20), and the new constitution that has emerged raises several doubts about the democratic legitimacy of this process of constitutionalization of economic policy as part of a procedure of market integration (Prosser, 2014).

Below, we will discuss the impact of the economic constitution on entrepreneurship in the European Union, taking into account that, besides national economic constitutions, Member Countries have the reinforcing effect of the European economic constitution.

In general, such decoupling of market discipline and political control is affecting other countries too, as we noted above, and not only the European Union. Therefore, the concerns expressed by scholars have a vaster scope of applicability and the evaluation of their effects on economic outcomes, including entrepreneurship, is important.

5. Measuring entrepreneurship

So far, we referred to ‘entrepreneurship’, ‘start-ups’, ‘new firm formation’, and ‘new entrepreneurial ventures’ in a broad and general sense, but it is now time to give a

[11] Judgment on the Maastricht Treaty of 12 October 1993, Entscheidungen des Bundesverfassungsgerichts 89, 155, [1994] 1CMLR 57.

more precise definition, one that is associated to a specific measure of the action of firm creation and can be used for both the analysis of firm and industry dynamics and the design of policy actions.

Using an 'actor' approach, entrepreneurship involves a national milieu of agents who are willing to create new firms and launch their new businesses when the circumstances are more favorable or when it is the only alternative to prolonged unemployment (Santarelli, Carree & Verheul, 2009). Consistent with this approach, the ratio of new entries to the total number of firms already active in a region or a country can be taken as a measure of the rate of new firm formation and assumed to represent the endowment of entrepreneurship capital. The relevant literature has therefore considered a high rate of new firm formation as a signal of a greater endowment of entrepreneurship capital in the region/country under investigation. In this respect, one has nevertheless to keep in mind that different measures of new firm formation may produce strikingly different results in the empirical analysis and therefore lead to recommend different policy actions.

In fact, from the mid-1980s to the early 2000s, industrial policies aimed at promoting industry dynamics have been targeted at increasing both the number of new firms (particularly small ones), and the rate of new firm formation, under the assumption that they best enclose the 'entrepreneurial' spirit. The rationale underlying this approach is that new-born firms are important for economic growth, since: *i)* entrepreneurship is embedded in small firms; *ii)* entrepreneurship is good for economic growth; *iii)* an increase in the number of new businesses promotes an increase in GDP growth.

More recently, empirical work has pointed out that what really matters for economic growth is not just *the number* of new businesses that are created at any time in any industry, but the presence of a group of ambitious entrepreneurs pursuing successful growth strategies (Stam, 2015 and references therein). This implies that, consistent with Jovanovic's (1982) Bayesian model of noisy selection, only efficient new-born firms able to survive and grow prove useful in the *innovation-driven* stages of economic development.

This finding has led to a new approach to the design of public policies in support of firm and industry dynamics. Such new approach is not based on traditional indicators,

like “self-employment” and “small business presence”, but on measures emphasizing the innovative and growth-oriented nature of entrepreneurship and SMEs. Examples of these measures are high-growth start-ups or “entrepreneurial employees”, with the latter denoting employees able to develop new activities for their main employer (Guerrero, Amorós & Urbano, 2021).

But what is the most appropriate measure of entrepreneurship to be used when comparing the impact of constitutional provisions on entrepreneurship for a huge number of countries? Constraints due to the uneven availability of country-level data notwithstanding, one has to choose between two possible approaches: the *ecological* and the *labor-market*. Whereas the former standardizes the number of newly established firms relative to that of active ones, the latter standardizes the number of newly established firms to the size of the workforce or working age population.

Within the *ecological approach,* one might calculate at least three different indices: *i)* the *natality* index, as the ratio of the number of firms born in a given period to the total number of firms active at the end of the previous period; *ii)* the *development* index, as the ratio of the difference between firms started and firms closed down in a given period to the total number of firms active at the end of the previous period; *iii)* the *dynamics* index, as the sum of the number of firms started and closed down in a given period to the total number of firms active at the end of the previous period. The denominator of each of these measures can be represented by average values *during* the period under consideration.

The *labor-market* approach standardizes the number of newly registered firms by the total number of employed individuals, or by the number of individuals in the labor force, or by the number of individuals aged between 15 and 64 years. Also with this index, the denominator can be represented either by values at the end of the previous period or average values *during* the period under consideration.

It is our opinion that the *labor-market* approach is the most appropriate to represent the decision to create a new firm as an occupational choice pushed jointly by the personal characteristics of the would-be entrepreneur (including the most salient traits of her personality) and a series of environmental characteristics spanning from market structure to the institutional and legal framework (cf. Carbonara, Tran & Santarelli, 2020; Santarelli & Vivarelli, 2007). The *labor-market* approach, in fact, implicitly

assumes that new entrepreneurs are individuals previously employed or potentially interested in having a dependent job who switch to independent work for exploiting their knowledge of production processes and market features. From such a perspective, this measure is a reliable proxy of the overall quality of new entrepreneurs, measured in terms of their previous work experience.

One cannot help but note that, being the aim of our study to quantify the impact of constitutions and lower-rank norms on entrepreneurship, this approach is the most appropriate also from this viewpoint.

6. The variables at play: an analysis of the economic constitution around the world

In this Section we analyze the content of the economic constitutions around the world, studying whether countries have explicitly adopted their principles in their written constitutions and discussing the impact of their *de jure* and *de facto* implementation on entrepreneurship.

According to what previously argued, we choose, as the main principles representative of the economic constitutions, the right to free and competitive markets and the right to establish and conduct a business.

We then add other principles, protecting rights that favor investments and economic initiative, such as the protection of private property, together with the right to transfer it freely (*inter vivos* and after death) and to inherit, and the protection of intellectual property rights.

These seven principles make up the core of our definition of "economic constitution", in line with the theories discussed in Section 4 above.

We then expand this set of rights, to include other provisions that have a potential and direct effect on economic outcomes and that are therefore likely to moderate the influence of the seven core principles.

First of all, we consider whether the constitution provides for the adoption of a national economic plan. Clearly, this would be the antithesis of the economic

constitution as we described it and it should have the opposite impact on entrepreneurship compared to the right of free business and competitive markets.

We then acknowledge the role of education in fostering entrepreneurship and economic growth. Education creates human capital and is therefore one of the engines of endogenous economic growth (Aghion and Howitt, 1997). Again, given the relationship between entrepreneurship and growth, a positive impact of education on the rate of formation of new businesses should be anticipated. In particular, we would expect that education fosters economic initiative, at least to some level. So, for instance, while guaranteeing primary and some secondary education might enhance the rate of entrepreneurship, compelling the young to attend school for too long might be detrimental. There is in fact anecdotal evidence that too much education spoils the best ideas and initiatives, thus jeopardizing entrepreneurial success. [12] For example, observing that some successful entrepreneurs dropped out of college or even of high school, Parker (2009) notes that the more an individual studies, the more she learns rigid mental schemes and rational arguments that might ultimately suffocate her creativity and attitude towards entrepreneurship.

To account for these potentially two-faceted results, we include in the analysis three different constitutional provisions concerning education: first of all, whether the constitution contains provisions concerning education and, if so, whether education should be compulsory until at least some level and to which level (primary or secondary). Last, whether the constitution stipulates that education be free, at least up to some level.

Corruption is another factor potentially impacting economic initiative heavily. Corruption has been traditionally identified as a drag on economic growth (Mauro, 1995) and such negative effect potentially translates to entrepreneurship, typically related to growth (Baumol, 2010). Generally, constitutional provisions regarding corruption are devoted to its reduction and to the enforcement of anti-corruption measures. Often, in constitutions, corruption is mentioned together with other regulatory provisions or when counter-corruption is among the powers of specific institutions. We take the provision requiring the establishment of a counter-corruption

[12] For a discussion of the theories explaining the effect of education on entrepreneurship and of the relative empirical evidence, see Carbonara, Santarelli and Tran (2016), and references therein.

commission, as it is one of the very few standalone provisions regarding corruption in constitutions.

Regulations are likely to impose a burden to free economic initiative as well. Constitutions may contain mentions to several types of market regulations. We consider protection and preservation of the environment, a provision likely to impose substantial costs to businesses, if aptly implemented.

Given that the economic constitution is accused of neglecting individual rights, we proceed to analyze individual rights potentially connected with business outcomes: the right to strike, consumer protection, and the right to just remuneration for work.

It should be noted that, in this Section, we look exclusively at the content of the constitutions. We do not discuss their *de facto* implementation or whether lower – ranked norms are aligned with them. A more in-depth examination will be conducted in the following subsections.

To perform our analysis, we use data are from the Comparative Constitutions Project (CCP) (Elkins, Ginsburg and Melton, 2009), a systematic collection of information on the content of the constitutions of almost all independent countries. Not only does it provide data on the content of almost all written constitutions, but it also tracks their main revisions over time since 1789. Although written constitutions do not tend to change gradually like unwritten ones, they are amended over the years in response to changing needs. The data in the CCP project are organized in 14 sections, according to the aims of the provisions contained therein. The relevant provisions for the economic constitution as presented above are contained in the following sections: 7.1 (Federalism), 9.5 (Corruption), 13.5 (Economic Rights), 14.1 (Environment), 14.5 (Economic Legislation), 14.6 (Race, Ethnicity, and Language), and 14.7 (Education). The database captures principles clearly stated in the constitutions, whether they are included or not and, often, the strength of right protection. For the purpose of our analysis, we consider whether such principles are specifically introduced in the constitution. Accordingly, we construct the corresponding variables as dummies attaining value 1 if the principle is mentioned in the constitution, and 0 otherwise.

We draw all the constitutional variables used in the present study from this database. The variables are listed in Table 1.

The 'core' economic constitution rights
Protection of private property
Right to transfer property freely
Right to transfer property freely after death
Inheritance rights
Intellectual property rights
Right to free/competitive markets
Right to conduct/establish a business
Market regulation
Counter corruption committee
Protection or preservation of the environment
Individual Rights
Right to strike
Just remuneration for work
Consumer protection
Provisions for national integration of ethnic communities
Education
Compulsory education
To what level compulsory education
Equal access to higher education

Table 1 - List of economic constitution rights and other directly related constitutional principles.

To control for country-specific *de facto* implementation of the constitutional principles that we consider, in the remainder of this Section we will follow Carbonara, Santarelli and Tran (2016) and we will rely on two different indicators: the perceived level of corruption as reported by Transparency International (Cpi), and the annual Index of Economic Freedom (from the Heritage Foundation). Specifically, the latter index measures the extent of de – facto protection of economic rights based on four key pillars, assessing rule of law, limited government, regulatory efficiency and market openness.

Using data from the CCP database and using a cross section from the year 2013 (the most recent year in our database), Figure 1 shows the number of countries in each continent that protect one or more of the seven "economic constitution" principles identified above (i.e., protection of private property, right to transfer property *inter vivos*, right to transfer it post-mortem, right to inherit, right to free and competitive markets, right to establish and conduct a business, protection of IPRs). We see that

Europe and the Americas have a relatively uniform distribution, meaning that they have a somehow similar number of countries whose constitutions protect a given number of rights (Europe is maybe slightly skewed to the right, meaning that it has a higher frequency of countries protecting four or five principles out of the seven we selected). In Africa, Asia, and Oceania, on the other hand, constitutions are more concentrated around lower levels of protection of the economic constitution.

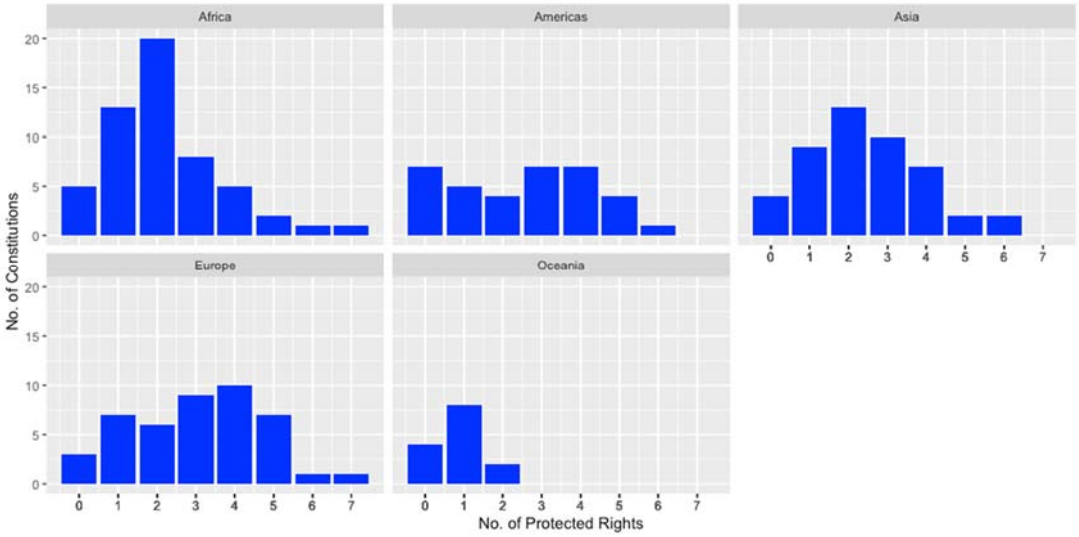

Figure 1: Protection of economic constitution principles around the world

Table 2 presents similar evidence (again for 2013), using the percentage of countries protecting a given number of constitutional principles in a continent, rather than the absolute number as in Figure 1.[13]

From Table 2, we see that there are no countries protecting all seven rights in the Americas, Asia, and Oceania. The latter continent shows a remarkably low level of protection of the economic constitution, with maximum two rights protected, by 2 countries, i.e., Micronesia and Palau. For both countries, the rights protected are private and intellectual property rights (patents and copyright). Interestingly, both countries have constitutions dating back to 1979, when the Federated State of Micronesia was founded and Palau, which is territorially part of Micronesia, choose not to participate.

[13] Our dataset contains, in fact, 55 countries for Africa, 35 for the Americas, 47 for Asia, 44 for Europe and 14 for Oceania. The list of countries in our sample is provided in Annex 1.

Continent	No. Protected Rights	Countries No.	Countries Perc.
Africa	0	5	9.09
	1	13	23.64
	2	20	36.36
	3	8	14.55
	4	5	9.09
	5	2	3.64
	6	1	1.82
	7	1	1.82
Americas	0	7	20.00
	1	5	14.29
	2	4	11.43
	3	7	20.00
	4	7	20.00
	5	4	11.43
	6	1	2.86
Asia	0	4	8.52
	1	9	19.15
	2	13	27.66
	3	10	21.28
	4	7	14.89
	5	2	4.26
	6	2	4.26
Europa	0	3	6.82
	1	7	15.92
	2	6	13.64
	3	9	20.45
	4	10	22.73
	5	7	15.91
	6	1	2.27
	7	1	2.27
Oceania	0	4	28.57
	1	8	57.14
	2	2	14.29

Table 2: Percentage of countries in each continent protecting a given number of constitutional principles out of the seven selected ones (year 2013).

These constitutions are among the newest in Oceania (only Tuvalu has a newer constitution, promulgated in 1986). The only countries protecting all rights in our list are Albania and Cape Verde, the former dating back to 1998, the latter to 1980.

From this very preliminary overview, one might get the impression that there is a negative correlation between the number of protected rights and the age of the

constitution. Figure 2 below seemingly supports this suspicion. In the Figure, countries with the oldest constitutions are concentrated mostly around the protection of up to two or three rights and more than a hundred-year-old ones protect only the right to own private property. The only exception is the United States, whose constitution is 232 years old (1789) and protects intellectual property too (patents and copyright).

Looking at Figures 1 and 2, one may argue that countries enacting a new constitution tend to provide a high level of protection of the economic system, protection that often anticipates what is really needed by the current degree of economic development. It is as if governments, in this often guided by supranational international organizations, trust the capacity of good legislation to pave the way for sustained development. By introducing these principles in their constitutions, they achieve a double goal. They signal *de facto* their commitment to implement a system that is favorable to a market economy on the one hand, which incentivizes investment by national and foreign businesses in their territory. On the other hand, they make sure that these principles will trickle down to their entire legal system, permeating it and creating the conditions for long-lasting economic growth.

What are the economic constitution rights most frequently protected? Table 3 below shows that the most common constitutional provision is the protection of property rights, which can be found in 85 percent of the 195 constitutions surveyed in this work. The second, most represented right is the protection of IPRs, which appears in 41% of the constitutions in our sample. The third most frequent right is the freedom to conduct a business, followed by the right to inherit property (29%) and by the right to free and competitive markets (21%). Few constitutions mention the right to transfer property freely (17%) and to transfer property post mortem (9%).

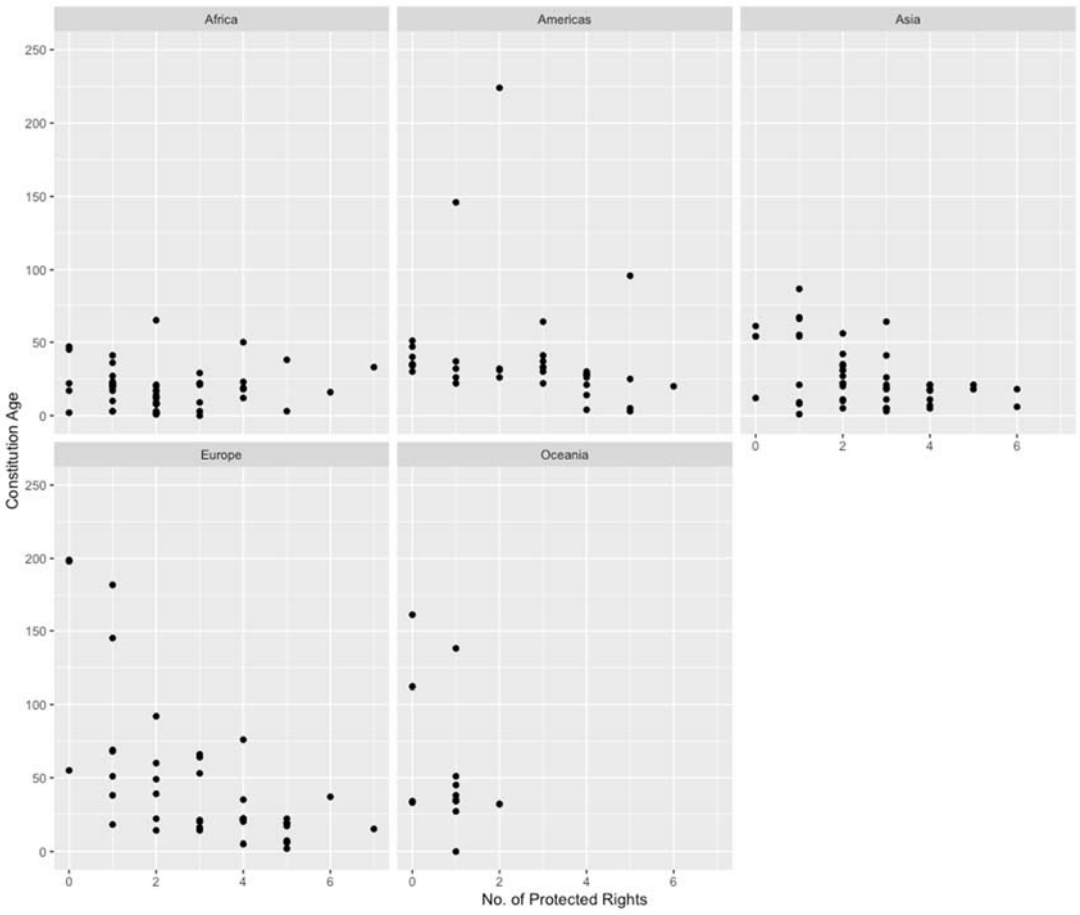

Figure 2: Level of protection of the economic constitution and system age (based on 2013 CCP data).

Continent	No. Countr	Priv Prop	Prop. Transf	Prop. Transf. *post mortem*	Inherit	IPRs	Bus Free	Free markets
Africa	55	49 (0.89)	10 (0.18)	6 (0.11)	9 (0.16)	18 (0.33)	22 (0.4)	6 (0.11)
Americas	35	27 (0.77)	6 (0.17)	3 (0.08)	8 (0.23)	21 (0.6)	14 (0.4)	9 (0.26)
Asia	47	42 (0.95)	9 (0.2)	3 (0.07)	19 (0.43)	19 (0.43)	15 (0.34)	8 (0.18)
Europe	44	40 (0.91)	7 (0.16)	4 (0.09)	20 (0.45)	20 (0.45)	24 (0.54)	19 (0.43)
Oceania	14	7 (0.5)	1 (0.07)	1 (0.07)	0 (0)	3 (0.21)	1 (0.07)	0 (0)
Total	195	165 (0.85)	33 (0.17)	17 (0.09)	56 (0.29)	81 (0.41)	76 (0.39)	42 (0.21)

Table 3: No. of countries protecting each right in the constitution (CCP data, year = 2013). In parentheses: proportion of countries out of total number in each continent.

In the remainder of this Section, we will discuss each right separately, looking at their impact on economic outcomes and on entrepreneurship in particular. We will extend our analysis beyond the seven rights we have included in our definition of economic

constitution, discussing education, individual rights, and provisions regarding market regulations.

6.1 Protecting property rights

The protection and regulation of property rights are key pillars of a free-market economy and of democracy. The CCP database includes various constitutional provisions regarding property rights in general and private property in particular. We

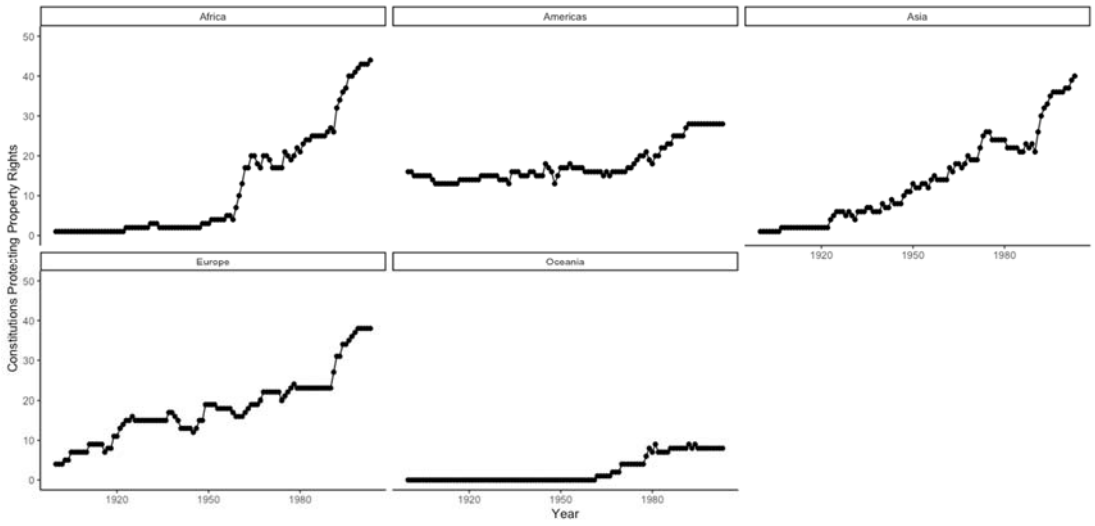

Figure 3: Evolution of no. of constitutions providing for property rights protection

have seen above that the protection of private property enters in the vast majority of constitutions across the world. This particular indicator plainly records whether the constitution provides for a right to own property. There are also other variables we have discussed above, like the right to transfer property freely *inter vivos*, the right to transfer property freely *post-mortem*, and inheritance rights, that are not so represented in constitutions.

The protection of property rights is crucial to guarantee that investors and entrepreneurs will be able to enjoy the proceeds of their investment and entrepreneurial effort and therefore enhances the incentives to create new firms and to participate to their funding. Together with the rule of law, therefore, strong property rights ensure that a polity is not governed arbitrarily by autocratic and predatory rulers (Bingham, 2011, Elert, Henrekson, and Sanders, 2019). This is a fundamental requirement for a thriving economy, as argued by several authors (among which, see North and Weingast, 1989, Rodrik, 2007, Robinson, Acemoglu, and Johnson, 2005).

The protection of property rights, therefore, together with the possibility to transfer property pre and post mortem, ultimately guarantees the efficient use of economic resources and enhances both the value of a firm and the rate of return of entrepreneurial investment (Johnson, McMillan, and Woodruff, 2002), positively impacting the rate of new firm formation (Carbonara, Santarelli and Tran, 2016). The analysis of the evolution and the organizational reproduction of the ceramic tile cluster of Castellon (Spain) since its inception in 1727, conducted by Hervas-Oliver, Lleo and Cervello (2017), confirms the importance of the institutional protection of inheritance rights. These authors find (p. 79) that "a pattern of persistent family ties is present throughout the whole timeline of the cluster's evolution, supported by the fact that all controlling families have been locally embedded entrepreneurs". Along with property, family-based networks transfer the knowledge and the attitude that are necessary to create and run a new business from one generation to another.

In Figure 3, we look at the evolution of the protection of property rights over time and across continents. There is a clearly visible increasing trend in all continents.

6.2 Protecting Intellectual Property Rights

Intellectual Property Rights (IPRs) systems reflect national cultures. Most countries introduced the protection or strengthened the enforcement of such rights only after they signed, in 1994, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs). To date, a significant number of countries have provisions specifically aimed to protect IPRs in their constitutions. We know from Table 2 above that 41% of the constitutions in our sample contain such provisions.

Figure 4 below shows these aspects. Panel 4.a confirms that the number of constitutions protecting IPRs has remained very low till the 1940s. Then, in 1947, intellectual property rights were included in the first round of GATT (General Agreement of Trade and Tariffs), and we can see a first increase. The 1947 GATT was signed in Geneva by 23 countries. After the first GATT round, there were other rounds, during which more and more countries joined. This explains the relatively smooth increase from 1950 till around the year 2000. In 1994, in Marrakesh we have the TRIPS agreement, which explains the sharp increase thereafter. Before 1820s, very few countries had IPRs in their constitution, a notable exception being the United States of America, whose 1789 Constitution, Article I, Section 8, Clause 8, gives

Congress the power "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." (Oliar, 2006).[14] Around 1820 we see an increase in the number of constitutions including IPRs, driven by Argentina, Bolivia, Brazil, Venezuela, Mexico and other American countries.[15]

The literature on IPRs has produced controversial results in relation to the impact of stronger protection of inventors' rights on both innovation and innovative entrepreneurship. For example, stronger protection of IPRs might positively affect a firm's propensity to invest in innovative activities only above a certain minimal level. Accordingly, new entrepreneurial ventures might be not sufficiently active in R&D to take advantage from strong IPRs protection (cf., among others, Bessen and Maskin, 2009; Gangopadhyay and Mondal, 2012). Alternatively, one cannot exclude that the relationship between strength of IPRs protection and the undertaking of innovative activities is better described by an inverted U-shaped curve (Lerner, 2009). These findings corroborate the view introduced by Barzel (1989) and North (1990), who raised doubts on an alleged monotonic relationship between the strength of IPRs and innovation, submitting that "the former makes the commercial use of technological inputs more expensive because firms must pay licensing fees to employ patented technologies or copyrighted works" (Della Malva and Santarelli, 2016: 3).

Such results suggest that an institutional setting favorable to IPRs might be a major factor in industry dynamics, although its impact is not straightforward. By the same token, using a measure of the strength of IPRs protection, Della Malva and Santarelli (2016) finds that stronger IPRs protection benefits more firms that are closer to the technological frontier and are interested to protect their R&D investment from imitation. Besides, young, and small firms are also found to increase their commitment to R&D investment as IPRs protection becomes stronger.

Disentangling the effect of patents from that of trademarks, Belderbos, Kazimierczak and Goedhuys (2021) finds for 980 NUTS-3 European regions over the period 2002-2009 that regional knowledge stocks represented by patents positively influence new

[14] This Clause is named "Patent and Copyright Clause", since it is the source of the Congress' power to enact legislation on patents and copyrights.
[15] The drops that we see in the time series in Figure 4 are due to missing values. Still, we believe the Figures are worth analyzing, given they effectively illustrate the increasing historical trend and correctly locate the major changes due to treaties and new legislation.

firm formation, whereas regional knowledge stocks represented by trademarks protection favor the appropriation strategies of incumbents and discourage new firm formation.

Whereas Carbonara, Santarelli, and Tran (2016) finds an ambiguous relationship between constitutional protection of Intellectual Property Rights (IPRs) and entrepreneurial activities, Carbonara, Gianfreda et al. (2021: 900-901) finds that inclusion of provisions regarding IPRs in a country's constitution displays a positive impact on labor productivity "in the absence of specific ordinary law or standing a limited protection by ordinary law". Under the hypothesis that only firms active in highly innovative industries do take advantage from strong IPR protection, Carbonara, Santarelli and Tran (2016) maintains that constitutional provision related to patents, copyright, and trademarks exert a negative effect on entrepreneurship. When they break down IPRs variables into their three components, they find that trademarks exert a significant and positive effect on firm entries, whereas copyrights and patents remain negative.

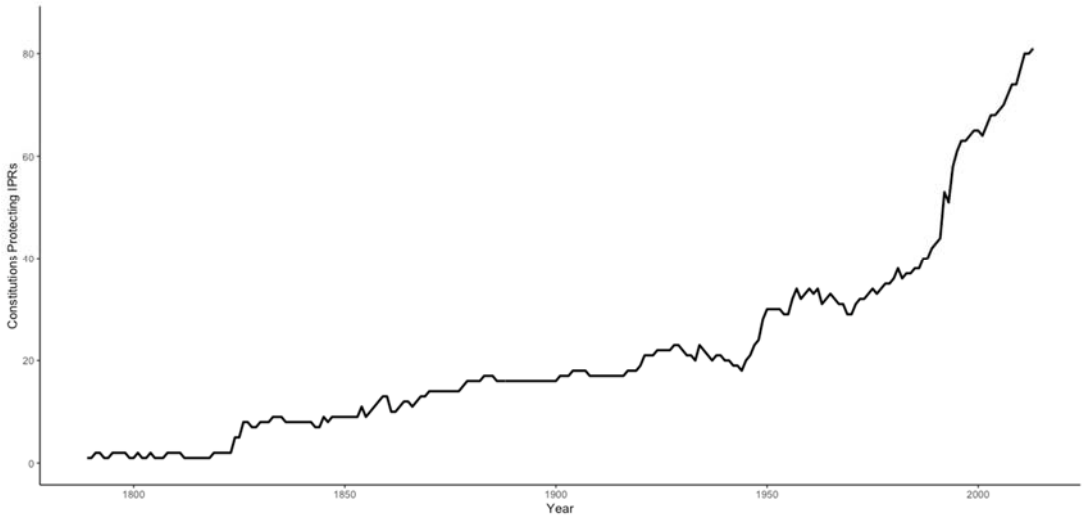

Figure 4.a

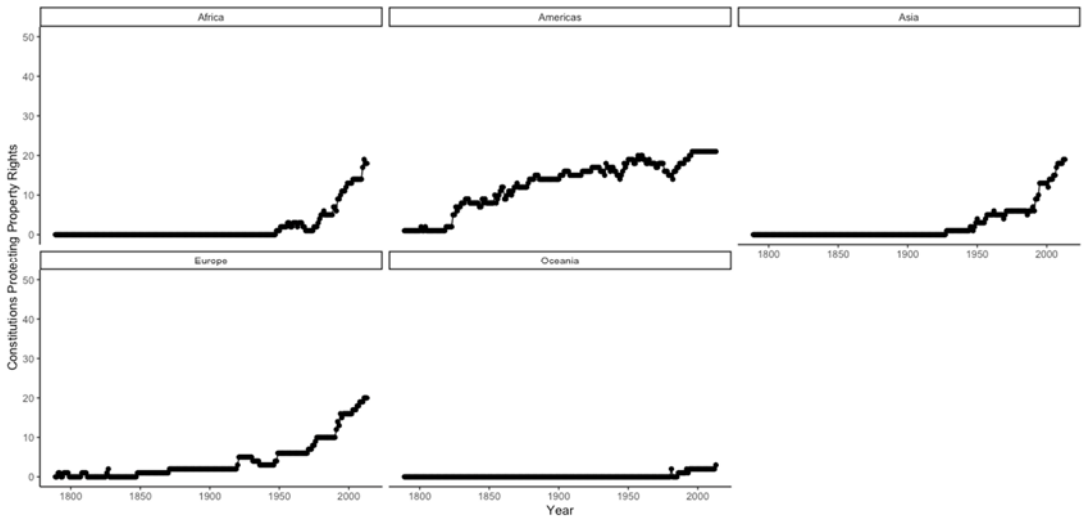

Figure 4.b

Figure 4: Evolution of the no. of countries adopting constitutional IPR protection worldwide (panel 4.a) and by continent (panel 4.b)

With the aim of measuring how IPRs protection leads to increased R&D effort and, *via* R&D, to productivity growth, Carbonara, Gianfreda et al. (2021) obtain twofold results. They measure constitutional protection of IPRs based on the CCP dataset, building a dummy variable that takes value zero if the constitution does not mention IPRs and value one if any of the IPRs (patents, copyright, and trademarks) is protected, irrespective of which one. They also control for IPR protection granted by statutory laws and other regulations, and for *de facto* protection. Their main finding is that, in countries where IPRs are protected by the constitution, high R&D intensive industries have higher labor productivity than other industries. However, in countries where IPRs are protected by both constitutional and statutory laws, the latter have no significant impact on the labor productivity differential between high and low R&D intensive industries. On the other hand, the estimated coefficients show that the effect of statutory laws is positive and significant in countries without constitutional protection of IPRs. This latter result seems to suggest a substitutability between constitutional and ordinary law, at least as far as intellectual property protection is concerned.

6.3 Free markets

Protection of free markets is an institutional principle of pivotal importance in the economic constitution, as we discussed previously. It is a crucial element in the mechanism of firm and industry dynamics, as it completes its natural development.

Most national constitutions contain provisions aimed at protecting free markets, thereby creating pro-market institutional conditions favorable conditions for self-employment and entrepreneurial activities. In fact, an institutional setup characterized by decentralization, translating into fewer market distorting government interventions, can strengthen the incentive to engage in entrepreneurship. Interestingly, sheer decentralization might not be enough to substantiate such positive effect. Individual morality values endorsing a market oriented, secular view are also needed (Patel and Wolfe, 2022).

Table 2 reveals that only 21% of existing constitutions include the right to free and competitive markets. However, this right appears in 43% of the European constitutions, stressing the importance of competition in Europe, reflected by the central role played by the protection of competition among European countries in general and in the European Union in particular (see Section 4.3).

Acs, Audretsch et al. (2009) use public expenditure in relation to GDP as a proxy of the extent of regulatory intervention in the economy, taken as a set of institutional barriers to entrepreneurship. Using annual data to test the hypothesis that "Entrepreneurial activities can be expected to decrease under higher regulations, administrative barriers and governmental intervention in the market" (Acs, Audretsch et al., 2009: 22) for 19 OECD countries over the period 1981- 2002 they find a negative and statistically significant impact of the ratio of public expenditure to GDP on the percentage of self-employed in total employment. Consistently with their hypothesis, too much market regulation is detrimental for entrepreneurship.

Carbonara, Santarelli and Tran (2016) are the first and only ones to test for the impact of constitutional protection of market freedom of entrepreneurship. Technically speaking, they use a dummy variable getting value 1 if the constitution expressly mentions the right to free/competitive markets as a founding value of the country, 0 otherwise. The large and positive coefficient of this variable confirms that pro-market institutional arrangements promote entrepreneurship. To control for actual, *de facto* implementation of this constitutional principle, they use the annual Index of Economic Freedom (source: Heritage Foundation) as a *de facto* measure of economic freedom. This index is a proxy of the observance of constitutional prescriptions and lower-rank norms aimed at guaranteeing the fundamental economic rights. Also, the 'Economic freedom' variable turns out to be positively and statistically significantly

associated to entrepreneurship, reinforcing the strength of the whole empirical analysis.

6.4 Business Freedom

As already stressed in Section 1, the freedom to establish (and run) a new business is an institutional pillar of Western democracies (Audretsch and Moog, 2022).

This is reflected in the frequency with which we find this principle represented in modern constitutions. As of Table 2, 39% of all constitutions featured in our sample include business freedom, 54% of European countries have it in their constitutions, as 40% of American and African countries. In Asia and Oceania such provision is less popular, as it appears in 34% of constitutions in the former and in just a little 7% in Oceania.

Business freedom depends on how difficult it is to start, operate, and close a business. It is taken as an indicator of the efficiency of a country's regulation of business. Clearly, the easiest economic initiative is, the more efficient regulation, the higher will be the number of new businesses and the more dynamic an industry, which translates in a more successful entrepreneurship and, ultimately, higher growth.

By analogy, business freedom has an impact similar to that of the formal institutions of political freedom – such as free participation of citizens to the choice of the political representatives, freedom of expression, freedom of association, and freedom of the press. Political freedom, as well as business freedom, is essential for the choice to become entrepreneurs. In this connection, studying 85 countries Miao, Gast et al. (2022) finds that only thanks to the mediating role played by political freedom between government effectiveness and entrepreneurship does government effectiveness turn to be positively related to the GEM measure of total entrepreneurial activity. Carbonara, Tran, and Santarelli (2016) uses the presence in the constitution of a provision protecting the 'Right to conduct/establish a business' as a proxy of freedom to entrepreneurship. The coefficient of this variable in the estimates is positive and statistically significant.

6.5 Economic planning and State intervention

Planned economies limit the space left to free economic initiative and are therefore characterized by a scant endowment of entrepreneurship capital. The centrally

planned mechanism implies an institutional system specifically designed to support state-controlled transactions and limit private transactions.

As we can see in Figure 5,[16] provisions for state planning in constitutions became quite popular after 1945, especially in Europe, where state planning was adopted by Easter European and other communist countries, like Albania and Yugoslavia. State planning was also quite popular in France (Timoney, 1984). The years between 1960 and 1990 saw a soaring popularity in Africa, where lots of countries (among which Algeria, Morocco, Egypt, Angola, Chad, Congo, and many others) introduced it in their constitutions. South America too saw an increasing popularity of the principle of economic planning in constitutions (remarkable is the case of Cuba). In Europe, Spain and Portugal adopted it (and still adopt it nowadays). Starting from the 1990s, this principle has lost attraction in Europe, with the former communist countries dropping it, as well as in the Americas and in many Asian countries (with Vietnam dropping it in its latest Constitution).

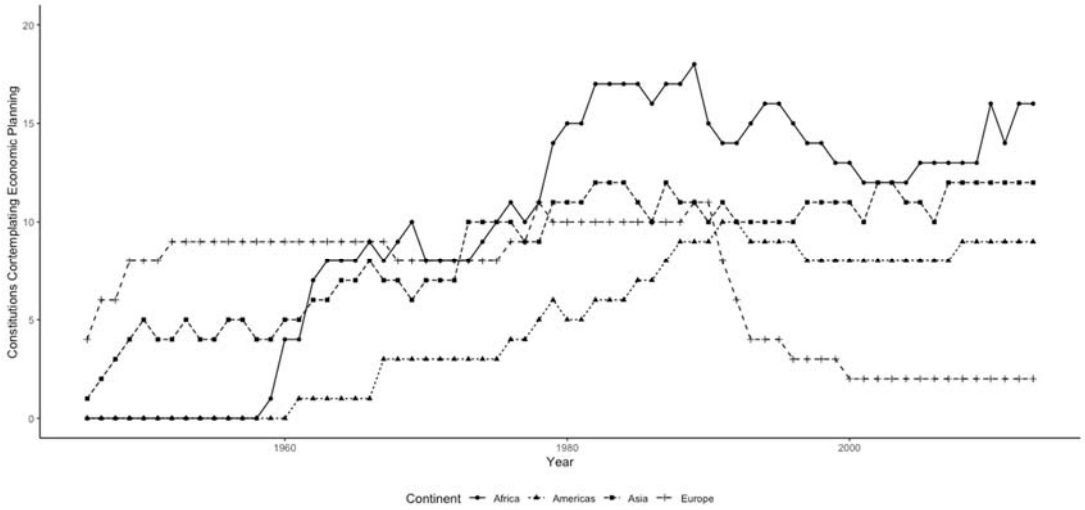

Figure 5: State planning in constitutions around the world.

The abandonment of state planning was often accompanied by a transition to free markets. This is documented by Figure 6, representing the total number of countries providing, respectively, for economic planning, free markets, and business freedom in their constitutions. It can be seen that, when economic planning was being

[16] Figure 5 excludes Oceania, where economic planning is barely adopted.

abandoned, around 1990, free markets and business freedom were upsurging, with the latter decidedly skyrocketing.[17]

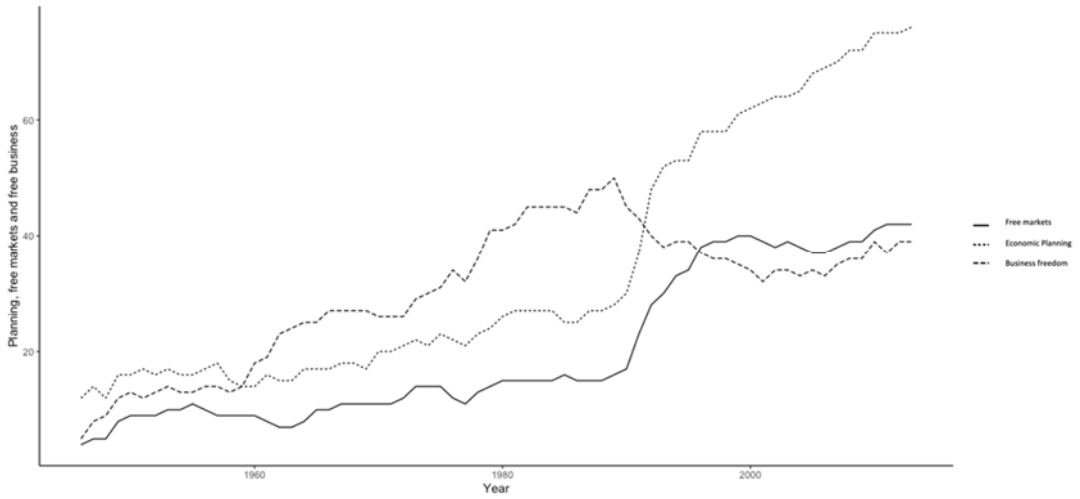

Figure 6: Temporal trends in the adoption of constitutional principles of economic planning, free markets, and business freedom.

In most cases, the most striking being that of the former communist countries of Eastern Europe, a market-oriented economic system was set up immediately after the divestiture of the centrally planned one. In the two largest previously centrally planned Asian economies, China and Vietnam, successful transition to market economy has instead involved gradual liberalization and smooth economic transformation (Huyghebaert and Quan, 2011; Tang, Tang and Birton, 2017; Tran and Santarelli, 2021). Vietnam is probably the most remarkable example of this smooth transition, that led the country to gradually abandon the institutional arrangements of a planned economy, to adopt those of an entrepreneurial economy (Tran and Santarelli, 2021).[18] The interplay of state-owned, mixed-owned, and private firms during the early stages of the transition allowed preservation of skills and organizational capabilities dating back to the centrally planned period and their absorption by the new generation of entrepreneurs. This transition was successfully completed less than a decade after adoption of the so called *doimoi* (restoration)

[17] It should be noted that not all countries dropped economic planning contextually to the adoption of principles of market and business freedom. Often countries had all three principles, simultaneously, in their constitutions (like, for instance, Spain still has).

[18] Vietnam promulgated a new constitution in 1992, substituting its former 1961 one. In the new constitution, economic planning was replaced by business freedom.

policy, that brought to the official recognition of private ownership in the Vietnamese constitution (Tran and Santarelli, 2021).

Carbonara, Santarelli and Tran (2016) assumes that countries which have in their constitution provisions recommending the adoption of national economic plans are the least entrepreneurially active. In the empirical specification, they use a dummy variable getting value 1 if the constitution expressly mentions that the state practices planned economy, and 0 otherwise. As expected, the coefficient of this variable in the various specifications of the empirical model is negative and statistically significant.

6.6 The right to education

We now begin the analysis of the constitutional provision that, while not belonging strictly to the set of variables we attributed to the economic constitution, are directly relevant for economic outcomes and entrepreneurship in particular. The first provision we consider has been included by the World Economic Forum (2013) among the most important determinant of entrepreneurial companies' growth (see Section 2.3).

Empirical literature suggests a positive relationship between education and income from entrepreneurial activities (van Praag, 2005), although anecdotal belief and some theoretical models of entrepreneurship corroborate the view that too much education might suffocate the creative skill of innovative entrepreneurs (cf. Parker, 2009, for an overview). On the one side, attainment of the highest levels of education may increase the value of the outside option of paid employment, therefore making entrepreneurship relatively less attractive to highly educated individuals. On the other side, according to the occupational choice model originally developed by Lucas (1978), entrepreneurs differ from employees and among themselves in terms of an "innate entrepreneurial ability" that is independent of the length of education and educational attainments in general.

Using macro-level data for 32 European countries over the period 1997-2014, van Stel and van der Zwan (2020) shows that in Western Europe the share of high-educated solo self-employed workers has increased remarkably. This evidence suggests a positive relationship between educational attainments and rates of new firm formation.

Limiting their analysis to a developing country (Malawi), Kolstad and Wiig (2015) finds a positive association between having completed primary education and the likelihood to startup and run a successful firm. This relationship turns out to be stronger for groups that have previously had little access to primary education.

Carbonara, Santarelli and Tran (2016) consider three distinct constitutional provisions dealing with education, namely whether constitution expressly mentions education, contains provisions protecting equal access to education, or makes education compulsory to a specific level or year of age. Compulsory education gets a positive and statistically significant coefficient. The same study uses as a *de facto* measure of the impact of education on human capital and through this on entrepreneurship the gross intake ratio in first grade of primary education (source: World Bank database), as a measure of the actual implementation of the right to education. This variable too has a positive impact on entrepreneurship, although only at the 90% confidence level.

These results therefore confirm the conclusions of the World Economic Forum (2013) and reaffirm the potential role that education plays in entrepreneurial ecosystems.

6.7 Protecting the environment

In many countries the right to a good and healthy environment is included among the constitutional rights. However, as far as entrepreneurship and economic activity in general is concerned, environmental awareness does not necessarily exert a positive impact on it. As mentioned above, should constitutions contain prescriptions aimed at enhancing the protection and preservation of the environment, they might result in a stricter regulation of the behavior of firms which will be required to adopt costly procedures to avoid pollution. While strict environmental laws may foster environmental entrepreneurship, it might potentially hinder new firm formation in all the other industries. As highlighted by Carbonara, Santarelli and Tran (2016), in most industries, regulatory procedures of this kind are often characterized by economies of scale and would on the one side exert a negative impact on the performance of SMEs, while on the other side they might hinder the process of new firm formation.

To identify the impact of constitutional provisions specifically aimed to protect and preserve the environment on entrepreneurship, Carbonara, Santarelli and Tran (2016) constructs a dummy variable equal to 1 if the constitution of a country has such

provisions, 0 otherwise. As a *de facto* measure of the actual enforcement of the prescriptions contained in constitutions and lower-rank norm in relation to the protection of environment, this study uses the amount of carbon dioxide (CO_2) in tons per capita (source: World Bank database). The coefficient of the constitutional dummy variable is always negative and statistically significant. Moreover, the CO_2 variable gets either a negative and significant or an insignificant sign in the various specification of the entrepreneurship equation. The authors interpret these results as indication that poorer countries with higher emissions are likely to be endowed with less entrepreneurship capital.

The widespread introduction of environmental protection in constitutions started around 1990, possibly following the 1992 UNFCCC Framework Convention on Climate Change and the 1997 Kyoto protocol. The upsurging trend has continued ever since in the whole world, with Africa and Europe leading the process, followed by Asia and the Americas, as Figure 7 shows.

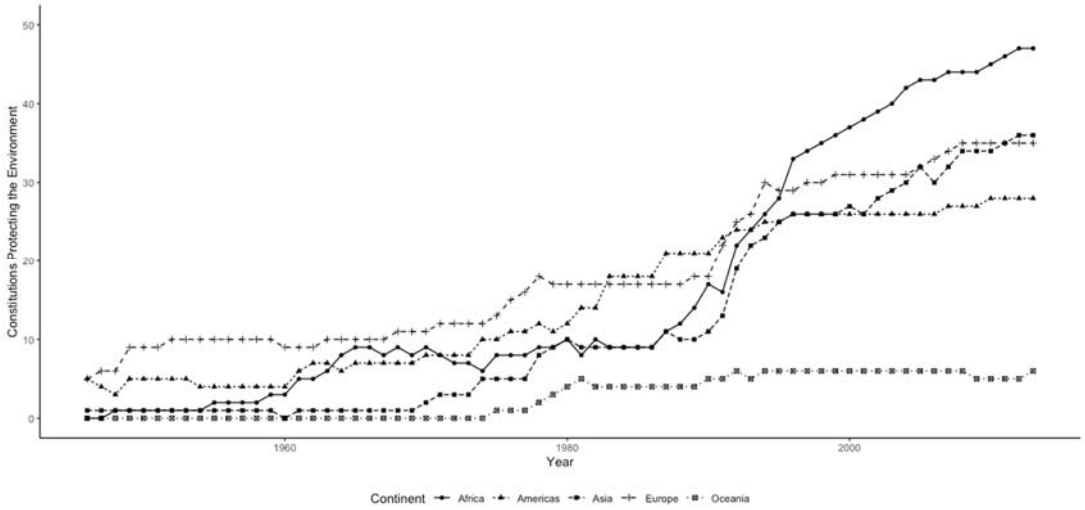

Figure 7: Environmental protection in constitutions

6.8 Fighting corruption

The second "regulatory" variable we include in our analysis is the control of corruption. Among the informal institutions of both advanced and emerging economies, corruption occupies a primary function in shaping entrepreneurial opportunities. Traditionally, it has been seen as an obstacle to economic growth (Mauro, 1995). More controversial is its impact on entrepreneurship, with some

studies finding results consistent with a 'grease the wheel' hypothesis and others with a 'sand the wheels' one (Méon and Sekkat, 2005).

Evaluating the impact of corruption on entrepreneurship in the 32 Mexican states, Jauregui, Heriot and Mitchelle (2021) finds that their measure of corruption is positively correlated with the formation of new formal-sector firms, but the squared term of the variable is negatively correlated with firm formation. This suggests a quadratic relationship between corruption and entrepreneurship, with some corruption helping entrepreneurs to overcome bureaucratic hurdles but too much corruption hindering entrepreneurship.

In national constitutions corruption is usually mentioned together with the regulatory burdens imposed to control the behavior of bureaucrats. Accordingly, Carbonara, Santarelli and Tran (2016) uses a dummy variable equal to 1 if a constitution contains provisions for a counter corruption commission, 0 otherwise. The coefficient of this variable is positive and significant in the various specifications of the empirical model. The same study uses, as a *de facto* determinant of entrepreneurship the Transparency International Corruption Perception Index, to take into account the potential deterrent effect exerted on entrepreneurship by abuse of public or collective responsibility for private ends. The coefficient of this variable is also positive and significant.

6.9 Ethnic integration

The evidence about the impact on entrepreneurship exerted by the presence of ethnic minorities in a country is mixed (Parker, 2009). Discrimination in salary jobs might encourage entrepreneurship, mostly of the solo self-employment type since ethnic minorities are more likely to incur in credit rationing on financial markets.

Pursuing the reduction of discrimination, the national integration of ethnic communities might impact positively on entrepreneurship in countries where the negative effect of discrimination is stronger on entrepreneurship, negatively otherwise (Carbonara, Santarelli and Tran, 2016).

To capture the impact of an institutional setting aimed at reducing ethnic discrimination, Carbonara, Santarelli and Tran (2016) constructs a dummy variable equal to 1 if the constitution of country has provisions aimed to reduce ethnic fractionalization, 0 otherwise. Although positive, the coefficient of this variable is

significant in only one of the specifications of the empirical model (the Year Fixed Effect) and only at the 90% level. This may be due to the fact that very few constitutions adopt such important principle (less than 20 in 2013), notwithstanding its social and economic importance.

6.10 Human rights and the economy

6.10.1 The “supply side": the protection of worker rights

Enhancement of social rights linked to protection of workers encompasses categories as diverse as income security, decent work, broad equality, and non-discrimination of work. Analyzing the text of 193 written constitutions, Sprague, Raub and Heymann (2020) finds that protection of such rights is twice as common in constitutions adopted from 2010 to 2017 compared to those adopted before 1970. Interestingly, this substantial growth of the likelihood that a constitution explicitly guarantees equal rights at work has been common among both Western and transition economies. For example, nowadays over 50% of the world’s countries have constitutional provisions guaranteeing in a way or another income security, and all constitutions adopted since 2000 protect equal rights regardless of sex or gender.

Protection of labor rights at the constitutional level or by means of lower-rank legislation does not necessarily exert a positive impact on solo self-employment and entrepreneurial activity. In fact, it is not a crucial issue in the creation of a pro-entrepreneurship legal framework.

Within an occupational choice analytical framework, one may assume that strong labor protection reduces the incentive to switch to entrepreneurship among employed workers. This effect is even reinforced by considerations among would-be entrepreneurs – irrespective of whether they are novice entrepreneurs or wage employees – relative to the fact that stronger worker protection is positively correlated with labor (and firing) costs and therefore represents an additional obstacle to the decision of choosing entrepreneurship as an occupation (cf. Carbonara, Tran and Santarelli, 2020).

Carbonara, Santarelli and Tran (2016) takes the presence of provisions protecting the right to strike in the constitutions as a factor that is likely to have a negative impact on the rate of formation of new firms. Findings show that constitutional protection of

the right to strike is a factor enhancing the propensity to create new businesses. The coefficient of this variable gets a positive sign and is statistically significant.

6.10.2 The "demand side": the protection of consumer rights

In most institutional setups consumer rights are protected under higher-rank laws (including constitutions) or specific laws. For example, in some countries belonging to the Association of South-East Asian Nations (ASEAN), the “grievance redress” mechanism is regulated along with basic litigation rights protected by constitutional provisions (Galasintu and Loveera, 2021).[19]

Within a law and economics conceptual framework, Carbonara, Santarelli and Tran (2016) argues that the presence in a country’s constitution of provisions recommending consumer protection has a negative impact on entrepreneurship, representing a regulatory burden imposed to entrepreneurial activity. These authors highlight that a direct consequence of consumer constitutional protection might be to force complex and costly warranty contracts and in general to push firms to provide high quality. Being competition for quality detrimental for start-ups and beneficial for large and established firms, the most negative effect of such provisions is expected to be found for newly established firms. The dummy variable equal to 1 if the constitutions contain provisions in favor of consumer protection and 0 otherwise gets a statistically insignificant coefficient, possibly due to the relatively low number of constitutions adopting such a provision in the sample (around 50 in 2013).

7. Constitutions and entrepreneurship: a complex relationship

7.1 The moderating effects of population characteristics and personality traits

Since we are speculating about cross-country differences, we cannot neglect possible moderating effects exerted by characteristics of the relevant population. In this connection, proneness to engage in entrepreneurial activities is a crucial characteristic of a country’s population, able to exert a significant moderating effect on the relationship between constitutional provisions and new business density. The choice

[19] In Thailand and other ASEAN countries a “redress mechanism” is in operation, allowing the Consumer Protection Board to lodge a lawsuit on behalf of the consumers. This is an additional guarantee to those consumers who are unable to proceed with a court case on their own. On the law and economics principles used to analyze litigation see Carbonara, Parisi and Von Wangenheim (2015).

of entrepreneurship as the preferred occupational option might be linked to personality traits of individuals or cultural traditions shared by a population.

Starting from the assumption that "entrepreneurship is about agency and actual behavior (manifest entrepreneurship)", Audretsch, Obschonka et al. (2017: 686) proxy the biological basis of entrepreneurship by means of the three personality traits of Extraversion, Conscientiousness, and Openness to new experience. In their view, such traits are those that better represent the idea of entrepreneurial agency. The same concept is used also by Acs, Estrin et al. (2018: 501) to provide a representation of National Systems of Entrepreneurship as "resource allocation systems that combine institutions and human agency into an interdependent system of complementarities."

Cross-country differences in the endowment of agency culture might well result in observed differences in the rates of new firm formation. But how can we measure agency at the country level? The simplest answer to this question is: by aggregating individual observations. In psychological studies, extraversion and openness to new experience form a higher-order trait of individuals' personality that defines 'psychological agency' (Digman, 1997). They represent two of the five Big Traits that shape individual personality, the other three being conscientiousness, agreeableness, and neuroticism. Extraverts are individuals who turn out to be highly active and assertive, whereas individuals open to new experience are highly creative and not afflicted by fear of change. These two psychological traits can therefore be taken as typical of those ambitious and 'energetic' individuals that Schumpeter labels *entrepreneurs* in his early writings (cf. Santarelli and Pesciarelli, 1990). Accordingly, one can measure agency culture at the country-level by constructing an index based on a country endowment of psychological agency. Populations of countries endowed with high levels of agency culture are more active, assertive, creative, and open to change than populations of countries in which agency culture is less widespread. Under the assumption that personality traits are relatively stable, Carbonara, Santarelli et al. (2018) uses aggregates of individual scores on such two traits as proxies for agency culture. Data are drawn from the global Gosling–Potter Internet project (Gosling, Vazire et al., 2004), that collects personality data via an Internet website in which people who voluntarily participate in the survey respond to items on a standard Big Five personality questionnaire using a five-point Likert scale. Findings show that constitutional protection of economic freedom exerts a moderating effect

on the association between a greater endowment of agency culture and a country's proneness to entrepreneurship. Besides, stronger institutional protection of economic freedom, denoted by higher values of the Economic Freedom Index, turns out to be associated to stronger entrepreneurship.

7.2 Entrepreneurship, institutions, and labor productivity

Foster, Haltiwanger, and Syverson (2008), finds that net entry provides a positive contribution to aggregate productivity growth when revenue-based productivity measures are used. By the same token, Lafuente, Acs et al. (2020) shows that countries characterized by a more widespread presence of Schumpeterian entrepreneurs are more likely to develop innovations that in turn lead to productivity growth. This study deals with 45 countries over the 2002-2013 period and focuses on the relationship between national systems of entrepreneurship (and their distinctive features) and Total Factor Productivity (TFP). Its main finding is therefore that a legal and institutional setting favorable to entrepreneurship is not only conducive directly to higher rates of new firm formation but also, indirectly to TFP growth.

But TFP growth is driven not only by indirect determinants such as the characteristics of national systems of entrepreneurship. The major driver of productivity is protection of Intellectual Property rights, as its strength is an incentive for firms to invest in Research & Development, that is in turn likely to improve their productivity performance (Della Malva and Santarelli, 2016). Using a measure of the quality of institutional protection of IPRs in some selected OECD countries, Dreher, Méon and Schneider (2014) finds a significant relation between such a measure and the dynamics of total factor productivity. Hypothesizing that a legal and institutional setting favorable to IPRs' protection might positively influence labor productivity in industries with a stronger orientation toward R&D, Carbonara, Gianfreda et al. (2021) studies for 22 industries and 22 countries over the period 2000-2013 the impact of IPRs protection on labor productivity. Choice of labor productivity instead of TFP is motivated by the fact that the paper performs a cross-country comparison of industrial sectors and labor productivity is a reliable measure of the competitiveness of an economy. For the purposes of the analysis, labor productivity is calculated as industry value added per hour worked. Not only do findings show a statistically significant impact of constitutional protection of IPRs on labor productivity in industries where

the R&D intensity is higher, but they also provide indication of a positive effect exerted by lower-level legislation (ordinary laws) protecting IPRs.

Interacting constitutional protections with ordinary laws, Carbonara, Gianfreda et al. (2021) finds that in countries whose constitution protects IPRs, lower-rank norms have no significant impact on the labor productivity differential between high and low R&D intensive industries.

These findings corroborate an empirical regularity emerged from a number of previous studies executed in the traditional of the knowledge production function approach originally introduced by Griliches (1979): the sectoral specialization of the production system of a country is the result of a lengthy process of structural transformation, that cannot be set in motion or fostered by competition policies, infant-industry policies, sector-specific innovation policies, and so on. IPRs protection is more a matter for constitutions and international treaties (such as the TRIPs Agreement mentioned in Section 5.2 above) than for ordinary laws. As constitutions and compliance with international agreements are more stable institutional arrangements than ordinary laws, they are likely to address the attitude of a country toward a sectoral specialization consistent with its traditions and endowment of human and physical capital.

7.3 The economic constitution in the EU

Since most modern constitutions - in particular those adopted more recently by emerging countries - reflect an approach and incorporate principles first introduced and fully implemented in European countries, Carbonara, Santarelli and Tran (2016) estimates the model that they had previously employed for 115 countries around the world, in relation to European countries alone. Findings are in line with those of the estimates performed for the whole sample of 115 countries in the case of constitutional provisions regarding right to establish a business, right to strike and compulsory education as well as negative effect of preservation of environment, and equal access to higher education.

The most striking difference is found in relation to IPRs protection, that exerts a positive impact on new start-ups in the European countries. A possible interpretation of this finding relies upon the assumption that, having constitutional provisions on IPRs been first enforced in Europe, their enforcement evolved along with the

development of stable institutional and economic infrastructures. As a result, it is no surprise that IPRs expose stronger benefits in European countries, where they enable newly established firms to "reap full rewards from their innovations without the fear of free-riding risks" (Carbonara, Santarelli and Tran, 2016: 156).

8. Conclusions, policy implications and directions for future research

In this monograph we highlighted the importance of the economic constitution, seen as a pillar of the institutional framework that by shaping the entrepreneurial ecosystem of a nation creates the most favorable conditions for allowing the competitive selection mechanism to exert his impact on the whole process of firm demographics. Based on the evidence provided in the previous sections, we are now ready to make some further reflections upon the possible role of public policies in turning *De Jure* principles into *De Facto* determinants of entrepreneurship.

Since the 1980s, most public policies have been designed with the aim of providing subsidies to a *plethora* of would-be entrepreneurs, sometimes determining an 'excess of entry' (Cabral, 2004) which, rather than fostering economic growth fueled turbulence and market churning (Santarelli and Vivarelli, 2007).

Taking inspiration from the Bayesian model of *passive learning* developed by Jovanovic (1982), Santarelli and Vivarelli (2002 and 2007) discuss the possible market distortions brought about by *erga omnes* policies aimed at lowering (any kind of) entry barriers and supporting (any kind of) entrepreneurship. Their paper identifies a deadweight effect arising whenever public support goes to entrepreneurs that would have in any case created a new firm and/or firms that would have survived and entered the stable portion of the market even without public support. Starting from the observation that there is no statistically significant evidence arising from cross-country studies of a "relation between the entry rate and how good the conditions for doing business are", Cabral (2014: 179), provides theoretical support to this 'deadweight effect' of active entrepreneurship policies hypothesis. Distinguishing between voluntary and involuntary exit, Cabral's (2014) model shows that the more exit represents their best choice the more firms are hit by barriers to business and

survival. Consistent with this finding and with the theoretical considerations raised in Section 6.1 above, one may argue that an institutional setup guaranteeing the correct functioning of the market selection mechanism is by itself able to promote the emergence of new classes of entrepreneurs with a significant likelihood of creating viable businesses and introducing innovative products and services. Such an institutional setup is deemed to represent a deterrent of numerous situations of market failure that, by limiting or even impeding the correct functioning of the mechanism of firm demographics night justify the adoption of *erga omnes* policies based on the provision of automatic subsidies to huge and heterogeneous number of 'would be' entrepreneurs.

An efficient market selection mechanism like the one depicted above would become stronger and stronger should its basic principles be encapsulated in a country's economic constitution, that in Section 4 above we defined as "the set of constitutional rules related to economic relations and interactions and to market functioning" - like provisions directly related to business, markets, and property. In fact, some of the empirical studies that we have surveyed in the present contribution show that countries are more entrepreneurial the more their constitutions and other institutional arrangements protect the pillars of the mechanism through which a fraction of the new firms that (attempt to) enter the market at any time in any industry prove successful and grow. More than the number of *potentially* successful entrepreneurs, what makes a country truly entrepreneurial is the number of *actually* successful entrepreneurs.

Thus, rather than focusing only on the quantity of entrepreneurship, policies aimed at promoting firm and industry dynamics should focus also on the quality of entrepreneurship and on the role of "agents of change" played by innovative entrepreneurs. As we stressed in Section 4.1 above, the economic constitution of a country should not nurture situations of "liability of newness". Far from being the mere result of a widespread presence of creative individuals, openness to change implies an institutional setting which rather than strengthening "the ties between old organizations and the people they serve" favors the emergence of "alternative better ways of doing things" (Stinchcombe, 1965: 150; 146).

Findings from previous research we carried out with different co-authors on the impact of constitutional provisions on phenomena of pivotal importance for economic growth, such as entrepreneurship and productivity, identified an ambiguous relationship between *de jure* and *de facto* characteristics of a country legal systems. D*e facto* characteristics represent the actual state of affairs *vis-á* one or a group of constitutional principles. They are therefore co-determinants of the economic impact of economic constitutions. Provided that most of the proxies used in previous studies were originally designed for different purposes, we leave to future research the development of more accurate measures of the *de facto* characteristics of legal systems, specifically designed for capturing the mediating function exerted by established practices and patterns of behavior on the effectiveness of constitutional provisions.

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