Emil Ems and Thorvaldur Gylfason (Eds.)

Prosperity through Trade and Structural Reform

Festschrift in honour of
Per Magnus Wijkman

Anders Ahnlid  Pontus Braunerhjelm  Emil Ems
Stefan Fölster  Harry Flam  Jonas Frycklund
Thorvaldur Gylfason  Lena Hagman  Magnus Henrekson
Gary Hufbauer  Lars Jagrén  Sixten Korkman
Nils Lundgren  Thorsteinn Thorgeirsson
Richard Murray  Thomas Wieser  Clas Wihlborg

Dialogos
A Reform Strategy for a More Innovative and Entrepreneurial Europe

MAGNUS HENREKSON

The European Union suffers from an innovation deficit, which must be remedied if the EU is to improve the quality of life of its citizens and remain competitive in the global marketplace. In order to do so, more productive entrepreneurship is required. This article analyses how Europe's institutional framework conditions could become more supportive of entrepreneurship and innovation, and outlines a reform strategy to achieve this objective.

Innovation is increasingly considered the key to elevating prosperity and securing sustainable long-term growth. Recent

1 This essay draws heavily on my studies with Niklas Elert and Mikael Stenkula (Elert, Henrekson and Stenkula 2017a, 2017b) and also on my joint work with Tino Sanandaji (Henrekson and Sanandaji 2018a, 2018b). Readers who are interested in further material and references backing the sometimes bold claims made in this brief essay are referred to those studies.

2 I am grateful for useful comments and suggestions from Victor Ahlqvist; for financial support from the EU project Financial and Institutional Reforms for an Entrepreneurial Society (FIRES); and from the Marianne and Marcus Wallenberg Foundation.
decades have witnessed a refinement of previous growth models to include investments in education by individuals and R&D by firms. Better educated individuals and increased R&D spending are shown to result in increased innovation and accelerated growth in endogenous growth models (Lucas 1988, Romer 1990, Aghion and Howitt 1992). This finding has spurred supranational organisations such as the OECD and the European Commission to design innovation strategies to meet future growth and welfare challenges. These strategies have also trickled down to the country level.

The European Union has launched the Innovation Union as a key component in its EU 2020 initiative. Here the tone is quite urgent: "We need to do much better at turning our research into new and better services and products if we are to remain competitive in the global marketplace and improve the quality of life in Europe. We are facing a situation of 'innovation emergency'."³

The essence of innovation

National innovativeness (and its close cousin competitiveness) is inherently difficult to measure. Still, there exist a number of comparative measures. The most recent ranking of the top-20 countries according to the most commonly used measures are presented in Table 1. Although there are differences in rankings across measures, there are also several noteworthy similarities: Switzerland and the United States consistently place at the top, Singapore and Hong Kong outperform most EU Member States, and among European countries the Scandinavian countries and

the Netherlands rank among the best according to all measures. Moreover, among the large EU countries only Germany stands out, and it is telling that Southern and East European countries are totally unrepresented among the top 20 countries in all five measures (with the exception of Italy's modest 20th place in one category). Evidently, Europe has a lot of catching up to do when it comes to innovativeness.

Policy discussion regarding innovation has in large part been focused on R&D. On average, the EU member countries spend a smaller share of GDP on R&D than the United States and Japan and less than half of that of South Korea and Israel. Policymakers and analysts alike often maintain that increasing R&D spending as a share of GDP is the safest way to enhance innovativeness in the EU. However, while the current emphasis on R&D spending is important, it is not a sufficient solution to a more complex problem. Even if increased R&D spending would lead to more knowledge creation and innovation, this does not necessarily translate into growth and prosperity. New knowledge and innovations (innovative combinations of new or existing knowledge) are only the first steps in an economic process aiming at producing social value. In order to be translated into economic growth, entrepreneurs must exploit the new knowledge and innovations by introducing new methods of production or new products into the marketplace. Thus, for Europe to enhance its ability to benefit from innovation and investment in knowledge and capital, its economy must become more entrepreneurial (Acs et al. 2009, Baumol 2010).

There are fundamental quality differences across firms and only a small fraction turns into high-quality firms that contribute most of the economic benefits associated with entrepreneurship (Schumpeter 1934). I refer to firms that bring an innovation to
MAGNUS HENREKSON

TABLE 1: Country ranking according to five common measures of national innovativeness. Top-twenty countries and latest available year.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hong Kong</td>
<td>Switzerland</td>
<td>Switzerland</td>
<td>Switzerland</td>
<td>Japan</td>
<td>Israel</td>
</tr>
<tr>
<td>2</td>
<td>Switzerland</td>
<td>USA</td>
<td>Sweden</td>
<td>Japan</td>
<td>South Korea</td>
<td>Switzerland</td>
</tr>
<tr>
<td>3</td>
<td>Singapore</td>
<td>Singapore</td>
<td>Netherlands</td>
<td>Germany</td>
<td>Switzerland</td>
<td>Sweden</td>
</tr>
<tr>
<td>4</td>
<td>USA</td>
<td>Netherlands</td>
<td>USA</td>
<td>Sweden</td>
<td>Japan</td>
<td>Japan</td>
</tr>
<tr>
<td>5</td>
<td>Netherlands</td>
<td>Germany</td>
<td>United Kingdom</td>
<td>Denmark</td>
<td>Sweden</td>
<td>Taiwan</td>
</tr>
<tr>
<td>6</td>
<td>Ireland</td>
<td>Hong Kong</td>
<td>Denmark</td>
<td>South Korea</td>
<td>Austria</td>
<td>Austria</td>
</tr>
<tr>
<td>7</td>
<td>Denmark</td>
<td>Sweden</td>
<td>Singapore</td>
<td>Austria</td>
<td>Taiwan</td>
<td>Taiwan</td>
</tr>
<tr>
<td>8</td>
<td>Luxembourg</td>
<td>UK</td>
<td>Finland</td>
<td>Netherlands</td>
<td>Denmark</td>
<td>Denmark</td>
</tr>
<tr>
<td>9</td>
<td>Sweden</td>
<td>Japan</td>
<td>Germany</td>
<td>Israel</td>
<td>Germany</td>
<td>Germany</td>
</tr>
<tr>
<td>10</td>
<td>UAE</td>
<td>Finland</td>
<td>Ireland</td>
<td>USA</td>
<td>Finland</td>
<td>Finland</td>
</tr>
<tr>
<td>11</td>
<td>Norway</td>
<td>Norway</td>
<td>South Korea</td>
<td>Finland</td>
<td>USA</td>
<td>USA</td>
</tr>
<tr>
<td>12</td>
<td>Canada</td>
<td>Denmark</td>
<td>Luxembourg</td>
<td>Belgium</td>
<td>Belgium</td>
<td>Belgium</td>
</tr>
<tr>
<td>13</td>
<td>Germany</td>
<td>New Zealand</td>
<td>Iceland</td>
<td>France</td>
<td>France</td>
<td>France</td>
</tr>
<tr>
<td>14</td>
<td>Taiwan</td>
<td>Canada</td>
<td>Japan</td>
<td>Luxembourg</td>
<td>Slovenia</td>
<td>Slovenia</td>
</tr>
<tr>
<td>15</td>
<td>Finland</td>
<td>Taiwan</td>
<td>France</td>
<td>UK</td>
<td>Iceland</td>
<td>Iceland</td>
</tr>
<tr>
<td>16</td>
<td>New Zealand</td>
<td>Israel</td>
<td>Hong Kong</td>
<td>Norway</td>
<td>Singapore</td>
<td>Singapore</td>
</tr>
<tr>
<td>17</td>
<td>Qatar</td>
<td>UAE</td>
<td>Israel</td>
<td>Ireland</td>
<td>Australia</td>
<td>Australia</td>
</tr>
<tr>
<td>18</td>
<td>China</td>
<td>Austria</td>
<td>Canada</td>
<td>Canada</td>
<td>China</td>
<td>China</td>
</tr>
<tr>
<td>19</td>
<td>UK</td>
<td>Luxembourg</td>
<td>Norway</td>
<td>Australia</td>
<td>Netherlands</td>
<td>Netherlands</td>
</tr>
<tr>
<td>20</td>
<td>Iceland</td>
<td>Belgium</td>
<td>Austria</td>
<td>Italy</td>
<td>Czech Republic</td>
<td>Czech Republic</td>
</tr>
</tbody>
</table>


the market and that have the ambition to grow as Schumpeterian firms, and similarly, their founders are referred to as Schumpeterian entrepreneurs. The innovation can consist of a new technology, as well as a new product, service or organisational practice.
One measure of Schumpeterian entrepreneurship is the number of entrepreneurs who did not inherit their wealth but became wealthy by creating firms. Henrekson and Sanandaji (2018a) use this measure and identify 57 countries with at least one billionaire entrepreneur. In addition, the authors adopt three alternative measures. First, the number of large firms that were founded by individual entrepreneurs after 1990, from Forbes Magazine's list of the world's 2,000 largest firms. The second measure is venture capital (VC) investment as share of GDP, where VC investments are focused on innovative and growth-oriented firms; thus, the size of the VC sector can be interpreted as a proxy for Schumpeterian entrepreneurship. The third measure is the number of Unicorns, that is, the number of recent startups with a market capitalisation exceeding one billion dollars.

Table 2 presents comparisons of the extent of Schumpeterian entrepreneurship in Eastern and Western Europe compared to the United States, China and the rich East Asian countries. The number of billionaire entrepreneurs per capita is three times greater in the United States than in Western Europe and more than ten times greater than in Eastern Europe. The alternative measures of Schumpeterian entrepreneurship provide similar differences when comparing the United States and Europe. Total venture capital investment as a share of GDP is five times greater in the United States than in Western Europe, the number of large firms founded by an entrepreneur since 1990 is more than three times greater despite Western Europe's larger population, and the number of Unicorns is five times greater (per capita it is almost seven times greater).

Western Europe also scores below East Asia according to two of the measures of Schumpeterian entrepreneurship but lies at the same level when the rate of entrepreneurship is proxied by
venture capital investment. China has high rates of entrepreneurship according to most measures given its low GDP per capita. The per capita number of billionaire entrepreneurs is lower than in the United States and Western Europe, but higher than in Eastern Europe. Venture capital activity as a share of GDP is similar to Western Europe’s. Furthermore, the number of large new firms and Unicorns exceeds that of Western Europe, reflecting China’s economic size and relatively high rate of entrepreneurial activity, perhaps due to being a developing economy. Eastern Europe scores well below East Asia and China according to all measures.

These comparisons make clear that there is a significant
entrepreneurship deficit in large parts of Western Europe and in Eastern Europe compared to the United States but, in some respects, also compared to China and the rich East Asian countries. This deficit appears even more pronounced once one takes into account that the Western European countries are both prosperous and knowledge-intensive.

In order for the EU 2020 initiative to become a successful comprehensive economic reform across countries a broad reform spectrum is required. Increased innovativeness and entrepreneurial dynamism cannot be achieved unless the institutional framework conditions are improved in a number of ways. The purpose of this essay is to discuss in what areas the European Union is most urgently in need of reform, as well as the nature of the reforms needed.

The European Union consists of 28 member countries (27 when Brexit is completed), and over time each country has developed its own unique “variety of capitalism” (Hall and Soskice 2001, Dilli et al. 2018). While the general direction can be specified, in which countries should move with respect to each reform area, those paths can differ considerably depending on the initial economic and institutional conditions. As a result, we cannot expect to find a “one-size-fits-all” reform strategy applicable to all countries. The necessary reforms need to be tailor-made and implemented at the national level, as well as at the Union level. To prepare for this, a deeper understanding of the conditions to look for in each country’s economic environment is needed.
The entrepreneurial ecosystem

While the Schumpeterian entrepreneur creates and expands businesses by identifying and exploiting new ideas, that is, acts as the catalyst of entrepreneurship, his or her success depends on an array of other actors/functions whose complementary competencies and inputs are necessary to create and make use of productive knowledge. Taken together these agents constitute the entrepreneurial ecosystem.

One can identify at least six such actors/competencies that are necessary to generate, identify, select and commercialise ideas. These competencies exist and are deployed (to varying degrees) in almost all market-based economies. They constitute the skill structure in a well-functioning entrepreneurial ecosystem:

i) Inventors contribute specific knowledge regarding the relevant technologies. They may create the foundation for a firm through an invention (patented or not) or work to solve specific problems.

ii) Professional managers are needed to take commercialisation beyond the initial entrepreneurial phase and to expand the original venture into a large-scale operation.

iii) Competent employees. Economic development and growth requires skilled specialists, production staff and front-line personnel.

iv) Venture capitalists. They are either business angels or venture capital firms who finance firms and entrepreneurs with "intelligent" capital in the early phases of development. They identify

---

4 The concept entrepreneurial ecosystem may remind Swedish readers of the theory of the experimentally organised economy (EOE), which is most closely associated with the writings of Gunnar Eliasson (Eliasson 1996; see Johansson 2009 for a synthesis).
entrepreneurs and their projects, determine whether and how much to invest and decide how the investment should be valued. In this process, they also provide the firm with industry experience, valuable contacts and management skills.

\(v\) Actors in secondary markets: Portfolio investors, buy-out firms, management buy-ins or wealthy industrialists who become controlling owners. Their functions are similar to those of venture capitalists, but they operate later in a firm's lifecycle.

\(vi\) Demanding customers. Consumption is the ultimate goal of production, and for growth to occur, the products produced must be what consumers demand. The most demanding consumers/clients function as particularly crucial sources of information regarding consumer needs and preferences.

The ecosystem's skill structure is complete when it has acquired a sufficient mass of competent actors to fulfill each function. A lack of requisite competencies or the absence of an important actor category may significantly hinder the entrepreneurial process. Chart 1 captures the phases during which the various actors in the skill structure participate in the commercialisation process, from the conception and development of an idea through commercialisation to full-scale industrialisation.

In this ecosystem, no specific agent is in charge or "owns" it, but each agent understands fractions of its inner workings. This implies that the agents do not necessarily feel responsible for ascertaining the efficient functioning of the ecosystem. Therefore, traditional "top-down" policy approaches are unlikely to work well since they "build on the assumption that it is possible to identify clear-cut 'failures' in the functioning of a given market or an innovation system" and that such failures "can be fixed through top-down intervention" (Autio 2016, p. 22). The very lack of ownership of the entrepreneurial ecosystem means that
there is no chain of command that can be applied, which is a central reason that a top-down "command-and-control" policy approach is unlikely to work or at least should be undertaken with great humility.

Since Baumol (1990), it is widely recognised that entrepreneurship and innovation are shaped by a society's rules of the game – its institutional environment. Entrepreneurs and other actors in the entrepreneurial ecosystem are crucially dependent on this environment. I now proceed to discuss how Europe's
A Reform Strategy for a More Innovative and Entrepreneurial Europe

in institutional environment could become more supportive of entrepreneurship and innovation and outline a reform strategy to achieve this objective. This strategy should target each Member State individually, as well as the Union as a whole.

A reform agenda for Europe

The point of departure for the reform strategy is the entrepreneurial ecosystem as briefly described in the previous section. Starting from there, I identify eight policy areas that I deem to be the most crucial ones in order to improve the presence and cooperation of all agents in the ecosystem.

Rule of law and protection of property rights

These are the most fundamental rules of the game, and all Member States need to ensure that they are stable and secure. A necessary condition for a well-functioning entrepreneurial ecosystem is the rule of law and a reliable protection of private property rights. If the rule of law is well established and widely recognised both by Government and private agents and the judicial system is efficient and consistent in its rulings, it becomes much safer for entrepreneurs to embark on long-term projects since they can count on being in control of their lawfully developed assets and potential profits. A strong protection of private property rights ensures that potential entrepreneurs and other complementary agents in the ecosystem are assured that they will be allowed to retain the lion’s share of the net revenue that they create. Moreover, well-defined property rights are necessary for well-functioning financial markets to evolve.
If property rights are not secure and backed by the judicial system in the case of infringement, destructive entrepreneurship will be fostered. Such entrepreneurship comes in many forms including organised crime and mafia-like organisations that emerge in order to offer "protection" that substitutes for the lack of rule of law upheld by the state. There may also exist large differences between what the law stipulates and how it applies in practice, including the efficiency of the judicial system in finding and sentencing those who commit crimes. In other words, there may be large de facto differences in the rule of law and property rights protection between countries that de jure appear to have legislation and judicial systems of comparable quality.

With regard to intellectual property rights, a delicate balance must be struck: The rules need to be strict enough to incentivise investments in innovation, yet weak enough to allow knowledge diffusion.

**Taxation**

Many types of taxes affect entrepreneurial decisions. The taxation of entrepreneurial income will affect how large a share of total net revenue the entrepreneur will be allowed to keep, but the design of the tax code at large will also greatly affect behaviour. In a country's tax code there are a myriad of details and exemptions (not to mention exemptions to the exemptions), which affect the rate of return for the entrepreneur relative to other agents and alternative activities. Analogously, the incentives of other agents with complementary competencies in the ecosystem are affected as well.

While tax rates on entrepreneurship should be low or moderate, policy makers should strive for simplicity rather than
A Reform Strategy for a More Innovative and Entrepreneurial Europe

(targeted) exceptions. In addition, they should aim for tax neutrality across owner categories, sources of finance and different types of economic activities.

The taxation of stock options can be instrumental in stimulating the emergence of entrepreneurial firms; founders and key personnel may not have the necessary private wealth required to expand the firm irrespective of the (inherent) value of the innovation. A low effective taxation of gains on stock options that is not due until the underlying stock is sold is in many countries necessary for founders and external financiers to attract skilled specialists away from traditional and much safer careers in established firms. Likewise, it is important in order for the professional private equity sector to find the startup sector attractive. Stock options make it possible for venture capital firms to incentivise founders and key employees with little or no private wealth to obtain a future share of the capital value they create through their sustained effort, and the creation of which is in fact not possible unless they participate.

Savings, capital and finance

The importance of saving and wealth accumulation is often stressed in the policy debate. But the composition of saving and wealth accumulation is just as important. Even if aggregate savings in the economy are large, a substantial share of those savings is often channeled into various types of funds where the regulatory framework stops these resources from being invested in uncertain entrepreneurial ventures—regardless of the upside.

5 For a further discussion of the role of stock options in this context the reader is referred to Henrekson and Sanandaji (2018b).
Therefore, entrepreneurial start-ups can rarely rely on funding from large financial institutions, neither directly nor indirectly. Instead, they have to rely on other sources (family, friends, their own savings). Numerous studies find that difficulties in obtaining finance are one of the most common impediments to a well-functioning entrepreneurial ecosystem.

A long-term solution to this problem is to ascertain that at least some savings are channelled to financial institutions that are allowed to invest in unlisted stock of entrepreneurial firms. In that context, it is important that pension funds (which receive a growing share of all financial savings) are allowed to invest part of their assets in the start-up sector and not only in real estate, public stock and bonds.

As new entrepreneurial firms cannot use debt financing, it is important that profits of firms with a low debt-equity ratio are not taxed more harshly. In other words, the tax system should be neutral with respect to the source of finance. Today, most national tax systems favour debt financing, which means that highly leveraged industries and firms are subsidised relative to industries and firms with low debt levels.

Overall, the regulatory framework should be reformed to support more private wealth formation and the creation of a dynamic venture capital industry, as these are crucial sources of finance particularly in the early stages of an entrepreneurial project.

It is unlikely that the Government can efficiently substitute for a lack of private risk capital in the start-up sector. While there is no safe way to pick winners, neither existing evidence nor a priori reasoning suggests that a Government agency would be more successful in this respect. On the contrary, there is a great risk that political rather than commercial factors will govern the selection process. In addition, while it is unproblematic that
private agents assume great risk and, in many cases, lose large sums, this necessary process will be very difficult to handle in democratically controlled organisations.

**Labour markets and social security**

The regulatory framework governing the labour market should be designed so that recruitment of people with the required competencies is facilitated and so that it does not become too costly and onerous to adjust the size and composition of the firm's staff. Extensive mandated labour security, such as strict order of dismissal in case of redundancy, renders it more difficult for entrepreneurial firms to recruit key personnel who have tenured positions in other parts of the economy. It also increases the opportunity cost for prospective entrepreneurs to quit a tenured position in an incumbent firm in order to start a business.

Exempting small firms from regulations such as a stipulated order of dismissal, may at first sight appear to be a reasonable strategy. However, this will function as a *de facto* tax on firm growth and reduce the willingness to grow for small firms with a large inherent growth potential.\(^6\) Allowing the development of a dual labour market where people on temporary contracts have greatly reduced security is not an efficient substitute either for overly stringent regulation of tenured jobs. Employees on temporary contracts have weak incentives to invest in firm-specific knowledge and to be loyal to their employer, while employees on regular contracts will be unwilling to change jobs even if that would increase overall welfare.

---

\(^6\) See Garicano et al. (2016) regarding how such rules reduce the willingness to grow among firms in France.
A relatively generous unemployment insurance combined with extensive opportunities for retraining would reduce the need for a stringent employment protection legislation. A so-called flexicurity system would facilitate entrepreneurial venturing and avoid that key personnel or potential entrepreneurs get stuck in tenured positions at large incumbents in mature industries. In general, incentives are best served by Government income insurance systems that encourage activation, mobility and (sound) risk-taking. Social security institutions should enable portability of tenure rights and pension plans, as well as a full decoupling of health insurance from the current employer, to avoid punishing those individuals who leave tenured employment in order to pursue entrepreneurial projects in newly started firms.

Labour market institutions should facilitate the recruitment of workers with the necessary competencies, which includes the removal of legal and institutional hurdles that prevent firms from altering the size and composition of their workforce. Overly stringent employment regulations may also create incentives for actors in the skill structure to devise arrangements to circumvent the regulations, including the emergence of an underground economy.

**Regulation of goods and service markets**

At the EU level, it is important that relevant federal institutions ascertain that the common market works efficiently, and that the member countries comply with laws and agreements to this effect. An inner contestable market open to all EU firms irrespective of their nationality is one of the core rationales for the Union, and the removal of artificial impediments at the level of individual member countries is crucial in order for European
innovations to realise their full potential.

It is essential that market-leading incumbents cannot wrong­fully exploit their dominant market positions. All markets should, to the greatest extent possible, be contestable. A weak competitive pressure weakens the incentive for the agents in the ecosystem to innovate and adopt new technology. Within the Union, there are today more than 5,000 regulated professions, encompassing more than 50 million jobs. Many of these regulations are unnecessary and harm both efficiency and dynamism.

Differences are large between member countries regarding the extent, to which various industries are deregulated and how easy it is to start a new business, especially in the service sector. The laggard countries need to catch up in these respects. Lowered entry barriers in general are therefore key in this reform area, as is the opening of public sectors that are largely closed to private production, such as healthcare and education. Opening up the latter for private enterprises through, for instance, a well-de­signed system of public financing (voucher schemes, etc.), would encourage contestability and thereby increase sector productivity.

There is reason to believe that the social service sector will become even more important for entrepreneurship. First, the elasticity of demand is high for many services, notably education, child care, elderly care and healthcare. Second, markets for welfare services need to become increasingly contestable in the future in order to open up this crucial and growing area to value-enhancing innovation and entrepreneurship.

Bankruptcy law and insolvency regulation

All entrepreneurial activity is experimental by nature, which makes bankruptcies and insolvency an unavoidable and inherent
trait of any entrepreneurial economy. Entrepreneurial failure should not necessarily be considered a waste of resources; it is a natural ingredient of a venture-based and innovative ecosystem and it provides valuable information to other economic actors about what does not work. Insolvent ventures must be closed down as swiftly and conveniently as possible so that their resources can be redirected to more productive uses.

This gives rise to a delicate tradeoff. Bankruptcy law and insolvency regulation should be relatively generous and allow for “a second chance.” Many successful entrepreneurs have experienced business failure, which has given them valuable knowledge and experience that increase the likelihood of success in future projects. On the other hand, it should not be too easy to file for bankruptcy as that encourages exploitation and destructive entrepreneurship, harming creditors as well as the rest of the community.

R&D, commercialisation and knowledge spillovers

As I have already noted, politicians often point to more R&D spending as a means to spur innovation and economic growth.

Again, for such spending to result in increased welfare a well-functioning entrepreneurial ecosystem is needed. Only then are knowledge and inventions transformed into goods and services for which there is demand in the marketplace, and only then are more efficient production and distribution methods are developed (Bhide 2008).

Thus, instead of focusing on quantitative spending goals and targeted R&D support, policy should strive to generally make it easier to start and grow businesses. A large part of the social value of R&D arises through imitation and knowledge spillovers,
A Reform Strategy for a More Innovative and Entrepreneurial Europe

i.e., when ideas and knowledge emanating from previous innovations are applied in new areas, or diffused to competing firms or firms in other parts of the economy (Acs et al. 2009). Successful clusters of firms often emerge spontaneously; they cannot be orchestrated top-down. In fact, the most innovative EU countries have the lowest share of government funded R&D.

**Incentives for human capital investment**

Successful entrepreneurs are often highly educated, which emphasise the role of education as a mechanism to increase entrepreneurial venturing. A high average level of education in the population at large also improves the entrepreneurial ecosystem, as this will increase the supply of competent employees. For firms in the high-tech sector the supply of workers with a degree in engineering or the natural sciences is crucial.

To assure that the ecosystem functions smoothly individual incentives to acquire valuable knowledge need to be sufficiently strong. This is true both for knowledge acquired in the formal educational system and on the job. Therefore, the structure of wages and the progressivity of labour taxation play a key role; a sizable educational wage premium net of tax is needed. However, the educational premia differ greatly across EU Member States, where several countries have relatively low return on education. Moreover, few universities in the EU are among the most highly ranked in the world (with the United Kingdom as the most salient exception).

In their 2020 strategy the Union stresses the need for a world-class university system, as a means to enhance innovativeness. This presupposes reforms that give universities and individual researchers stronger incentives to strive to become world class,
MAGNUS HENREKSON

while at the same time increasing cooperation with industry and adjusting curricula to outside demand. In particular, parts of the US university system could be a role model as it seems more responsive to the economic needs of society than European university systems.

Conclusions

The European Commission professes that the European Union suffers from an "innovation emergency". To address this shortcoming, policymakers in Member States and at the centralised EU level need to institute entrepreneurship-friendly institutions largely by undertaking economic policy reform. Ultimately, that was one of the original intents of the European project, embodied in the four freedoms of its single market (of goods, workers, services and capital). The Union's procedural logic inherently pushes the institutional setup of Member States in a liberalising direction. There exists a substantial asymmetry between the clout/scope of the rulings of the European Court of Justice (ECJ) - automatically binding throughout the entire EU - and the high consensus requirements of political action at the European level. In reality, this makes it very difficult for Member States to retain a national regulation or policy that allegedly impedes any of the four freedoms (Scharpf 2010).

As a way out of the current predicament I have laid out a reform strategy, drawing on joint work with Niklas Elert and Mikael Stenkula, that takes the entrepreneur's reality in the entrepreneurial ecosystem as a starting point, notably the complementary skill structure needed to realise entrepreneurial ideas.

Entrepreneurship policy is different from policy that is focused
on encouraging self-employment or small business activity, often referred to as SME policy. As it is difficult – if not impossible – for policymakers to a priori determine who will become an entrepreneur (let alone a successful one), policy measures directed at a specific group (such as the unemployed) or a specific form of business (such as small or new firms) are largely misdirected. Thus, policy should not try to influence the "natural" evolution of firm size, growth and form through targeted subsidies or tax breaks. Instead, it should leave this evolution to market forces and profit motives. Thus, policy should aim to support or develop an institutional system that encourages socially productive entrepreneurial activity irrespective of business form and enables the creation and commercialisation of valuable knowledge.

In consequence, a fruitful policy discussion cannot be confined to a limited set of instruments or areas. One should ask what policy measures foster the creation of innovations with high inherent potential and, simultaneously, provide the right incentives for individuals to create and expand firms that disseminate such innovations in the form of highly valued products. In this essay, I argue that Member States should undertake reforms in eight key areas: (i) the rule of law and the protection of property rights, (ii) the tax system, (iii) regulations governing savings, capital and finance, (iv) the organisation of labour markets and social insurance systems, (v) regulations governing goods and service markets, (vi) regulations governing bankruptcy and insolvency, (vii) R&D, commercialisation and knowledge spillovers, and (viii) human capital investments.

Overall, the proposed institutional changes move in a liberalising direction. However, one-size-fits-all policy reforms aimed at freer markets will not necessarily be successful. Instead, a successful reform strategy must take into account country differences
that affect the viability of reform whilst pursuing the long-term goal of institutional liberalisation to promote entrepreneurship, innovation and growth.

References


Elert, Niklas, Magnus Henrekson, and Mikael Stenkula (2017a),
A Reform Strategy for a More Innovative and Entrepreneurial Europe


IMD World Competitiveness Center (2017), World Competitiveness Yearbook 2017. Lausanne.


