

‘Home-grown’ innovation has costs as well as benefits

Europe can improve its innovation systems, but should not try to copy the US approach

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Many European leaders express concern, or even dismay, that Europe is unable to launch and grow its own tech giants like those in the US¹. This reflects European insecurity about tech inferiority that goes back at least as far as France’s Plan Calcul in the 1960s. Europe wants the benefits that large, innovative firms create for their home economies. These include high-skill employment, increased tax revenues and early adoption of new technologies. The rise of a single big tech firm may even contribute to the growth of an entrepreneurial ecosystem that spurs yet more home-grown innovation.

But the US style of innovation also has appreciable costs that European policymakers should weigh before their hand-wringing gets too vigorous. Articulating whether these costs are acceptable or not in Europe enables clear thinking about European policy reforms.

The steps US-based platforms need to take to achieve their huge size and market power create substantial costs for the home society. Very fast moving and lightly regulated US venture capital markets generate many frauds and failures. Elizabeth Holmes, founder of Theranos, a health-tech company², and Sam Bankman-Fried, founder of FTX Trading, a crypto exchange, are examples of these problems³. Financial frauds are not unique to the United States – Markus Braun of German payment provider Wirecard⁴ comes to mind – but a funding system prizing rapidity, flexibility, early identification of trends and cult of personality is more vulnerable.

VC funding is flexible in part because it does not have to be based on fundamentals. Firms become popular because of word of mouth in the venture capital community of Silicon Valley or a short-lived technical trend, rather than solid fundamentals, are more likely to experience a downturn later (Pontikes and Barnett, 2016). Even firms that have a solid value proposition may experience an adverse macroeconomic shock or technological change. When stock prices drop due to fads or fundamentals, startups are effectively required to lay off substantial fractions of their workforce with no warning. Since the beginning of 2023, tech firms have laid off nearly 225,000 employees, with Google, Amazon, Microsoft and Meta collectively accounting for more than a quarter of these layoffs⁵.

Burdens for workers

Quickly growing tech firms with young founders often hire rapidly without establishing proper human resource practices. Disproportionately often, managers are young, male, have no training in management and need to grow the firm quickly; this combination can result in employee harm. Activision, a video game publisher, made headlines in 2021 for its 'frat bro' culture that facilitated sexual harassment and workplace discrimination toward women⁶. In 2022, Google agreed to a \$118 million settlement in response to a class action lawsuit alleging that the tech giant systematically underpays female employees⁷. In September 2023, the US Equal Employment Opportunity Commission filed a lawsuit accusing Tesla of discriminating against Black employees, who are allegedly given worse assignments than white workers and fired if they complain⁸.

The intense pressure to perform creates working conditions that are unacceptable for many. Since his 2022 acquisition of Twitter, Elon Musk has slashed the tech giant's staff by 80 percent and rolled back its work-from-home policy, with the expectation that the remaining employees work upwards of 84-hour weeks to compensate⁹. Long work hours are standard at Musk's companies, with SpaceX workers known to joke that a 60-hour week is working 'part-time'¹⁰. Silicon Valley tech firms are known to offer employees free meals and other benefits designed to keep them in the office for as long as possible. Although benefits such as free meals may be innocuous, tech firms including Meta, Google, Netflix, Uber and Apple may even have begun covering the cost of elective egg freezing for employees to avoid the immediate costs of parental leave¹¹. Many of the startup behaviours Americans view as normal – and which may be necessary to succeed – are not compatible with European norms or laws.

'Consumption costs'

As well as these 'production costs', the US model of innovation may have 'consumption costs' associated with being an innovation producer of this type. Citizens in a society that venerates these firms and their accomplishments may be the first users of the new technologies. Meanwhile, the leadership of the jurisdiction may be slower to act to mitigate harms from a home-grown product. It is a well-known problem that the political power of corporations is often deployed against regulation that would limit their profits. Big tech platforms have spent large sums on US lobbying to ensure that effective regulations governing user health and safety, as well as market competition, are not adopted in their home country¹².

Often the benefits of a new digital technology are at least superficially clear: the services are convenient and 'free' to consumers. The risks to individuals and society can be harder to see at first, particularly if they arise from business models and market power that develop over time. Instagram is now known to harm teenage girls' mental health, Facebook is alleged to have enabled genocide and vaccine denial while Twitter has permitted threats to the physical security of citizens¹³. Despite the growing evidence of harms from social media, regulators in the US have taken zero steps to make these services safer¹⁴. Europe, by contrast, has adopted the Digital Services Act which came into force in September 2023.

Consumption benefits

Of course, there are significant benefits to being the host country for innovation. These benefits, however, do not include investment opportunities and consumption opportunities, because global capital markets and trade allow people globally to participate in these aspects of big tech. For example, many non-Americans own US corporations, both public and private. Consider the Norwegian or Saudi sovereign wealth funds, pension funds around the world, and wealthy individuals from every continent. Foreign investors owned approximately 40 percent of total US equity (Rosenthal and Burke, 2020). The Saudi sovereign wealth fund alone owns nearly \$10 billion in US-listed stocks, including minority stakes in Boeing, Facebook and Citigroup¹⁵. Finally, the consumers of the innovation created by these American technology platforms are spread around the world. A company that physically started its existence in the United States can, because of the nature of digital technologies, benefit consumers anywhere.

The consumption benefits from technological innovation can be increased in Europe with carefully-designed rules that protect citizens from the harms experienced in the US, and indeed the European Union has been quick to regulate the safety of new technology, through the General Data Protection Regulation, the Digital Services Act and other rules. By controlling the environment so that individual and public health are protected by rules on product design and mis-information, businesses are protected from exploitation by platform conduct rules, and democracy is protected from degradation, Europeans can obtain a greater net benefit from consumption of digital innovation.

Policy implications

European politicians who want Europe to have its own digital platforms are missing a great deal of nuance. The costs of the US model seem inconsistent with European values as revealed through norms and regulations. This suggests that any attempt to copy the US in Europe will not work.

This leaves Europe with two basic options. The first is to outsource high-tech innovation to the US while benefiting from consumption, investment and access to the US labour market for talented Europeans. Europeans can gain from allowing American society to shoulder the significant negative externalities of growing these tech firms, while European savers take advantage of the investment opportunities and European consumers take advantage of the innovations. Europe would not be free-riding because the US does not perceive itself as sacrificing for the common good when it innovates. The better analogy is the gain from enjoying the view of your neighbour's garden when they are keen gardeners: they do not want your help, and yet you benefit.

The second option is to develop European policies that will solve specific problems faced by innovative firms that are trying to start up and grow quickly. Policies that acknowledge and manage the riskiness of innovative firms would be helpful. If a young firm fails (even in a case when there has been no misbehaviour of management) it is efficient to shut down the firm. Moreover, investors will be less inclined to invest if they are required to pay workers after the firm no longer has a reason to exist. If labour-market regulations in Europe remove all flexibility, Europe will not be a good location to build a risky venture that requires human capital. Policymakers who want innovation but dislike it when employment costs are borne by workers should consider whether there is an incentive-compatible policy that allows society to bear some of these costs in return for the benefits of hosting the innovative company.

Policies that permit immigration of talented entrepreneurs are another area to consider. The leadership of many American digital platforms is often in the hands of immigrants. A 2018 study found that 55 percent of America's startups valued at or above \$1 billion had at least one immigrant co-founder, and that immigrants were key members of management or product development teams in 80 percent of those startups (Anderson, 2018). For every Jeff Bezos and Mark Zuckerberg, there is a Pierre Omidyar, Sergey Brin, Sundar Pichai or Elon Musk ¹⁶.

Regulations that protect incumbents from market entry by disruptive startups can slow growth or block it entirely. Rent-seeking incumbents often lobby hard to create and then maintain such barriers to entry (Mukoyama and Popov, 2014). US regulators generally did not block Uber from entering to compete with taxis while many cities in Europe did ¹⁷. The nuanced middle ground that would have benefited consumers in both jurisdictions would harmonise regulatory requirements of the two business models, enable part-time work, protect workers and ensure sufficient capacity to meet consumer demand.

Europeans would benefit greatly if Europe's politicians developed their own distinctive model of growing innovative firms. European policymakers who want innovation at home could improve the innovative capacity of the single market in ways consistent with European social norms and laws. Options include improvements to education, creation of straightforward paths to citizenship for talented entrepreneurs, reform of labour markets to allow for the practical needs of risky startups, progress towards a more unified capital market and, perhaps most importantly, reductions in regulatory barriers to entry. These types of reforms would significantly improve the innovative climate in Europe and likely lead to more home-grown tech companies.

However, jurisdictions that are willing to accept more harms are likely to attract more harm-creating startups. This may be a very effective strategy for generating innovation in those countries, and it may lead to them out-innovate Europe or any other jurisdiction that better protects workers and citizens. But if a difference in innovation production reflects a conscious choice on the part of European society in terms of the way it implements its values, then there is no problem to solve. Europe will not have 'lost' against the US or China, despite what politicians may say. Carefully crafting policies that promote homegrown innovation while reflecting European values is the best that can be done.

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