

# Telecoms and innovation

## Prioritising wealth creation instead of redistribution

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Until recently, the telecommunications market was held up as an EU success story, with Europeans emerging as the big winners. European consumers were indeed the great beneficiaries of competition, which went hand in hand with low prices. However, despite this success, Europe is not at the forefront of technology development or adoption. Maintaining their networks is costly, and upgrading them for 5G deployment is problematic in the European context of price competition. On the other hand, digital giants are in good financial health. It thus has been defended that digital giants ‘participating’ in the financing of telecommunications networks would be a way out. However, putting redistribution ahead of wealth creation is an admission of helplessness and resignation. The belief that digital players are responsible for the difficulties of European telecoms is a dead end. As with many key activities in Europe, the telecom market is being penalised by taxes and regulations that are both disproportionate and inappropriate. Instead of dreaming about taxing foreign players who are more dynamic than we are, the priority should be to remove obstacles to wealth creation.

There are structural factors holding back wealth creation in the European telecommunications sector. Policy changes should focus on eliminating the taxes that penalise networks, adapting European competition law to allow mergers, and removing anti-stock market regulatory biases rather than seeking to impose changes in profit-sharing agreements. Without suitable tax and regulatory frameworks and without long-term savings, we will fail to meet major challenges, whether in digitalisation, healthcare, or the energy transition.

### Introduction

Since the late 1990s, the European telecommunications sector has radically transformed from a group of state monopolies to a set of increasingly competitive national markets. Technological advances have led to lower prices and increased consumption<sup>1</sup>. Europeans were seen as having reaped the rewards of the achievements of the EU telecommunications market. In 2021, in a thought-provoking book titled *Les Gagnants de la Concurrence (The Winners of Competition)*, Thomas Philippon pointed out that European consumers have been big beneficiaries of competition, which keeps prices low, while their North American counterparts suffer from a lack of competition<sup>2</sup>.

However, Europe is not at the forefront of technology development or adoption. It even lags behind the United States (US) and major Asian countries in the deployment of next-generation networks such as 5G. Telecom operators face low profitability and what is sometimes called an ‘investment wall’. Maintaining their networks is costly and upgrading them for 5G deployment is problematic in the European context of price competition.

In contrast, the Web giants are in good financial health and have little difficulty financing their growth. Hence, the EU is considering the idea of modifying how value is shared between stakeholders. The debate on the sharing of value between telecommunications and digital players, which started in 2012 has been rekindled in the past year and has gathered momentum with the setting up of a European consultation.

In 2022, a study by Axon Partners Group pointed out that ‘most of the data traffic growth over the past decade has been driven by a small number of leading Over-The-Top (OTT) providers, with little or no economic contribution to the development of national telecom networks’.<sup>3</sup> According to work commissioned by the European Telecommunications Network Operator’s Association (ETNO), 57 per cent of the traffic in 2021 was related to activity involving Google, Facebook, Netflix, Apple, and Amazon. The development of these giants was made possible thanks to the investments of telecoms, which bear the costs without benefitting from a ‘fair’ share of the gains. European telecoms are forced to invest to meet their coverage commitments and stay in the

<sup>1</sup> See Cave, M., Genakos, C., and Valletti, T. (2019). The European framework for regulating telecommunications: a 25-year appraisal. *Review of Industrial Organization* 55: 47–62. doi:10.1007/s11151-019-09686-6.

<sup>2</sup> Philippon, T. (2022) *Les Gagnants de la Concurrence*. Paris: Seuil.

<sup>3</sup> See page 48 in Axon Partners Group (2022) ‘Europe’s internet ecosystem: socio-economic benefits of a fairer balance between tech giants and telecom operators’ (<https://etno.eu/downloads/reports/europes%20internet%20ecosystem.%20socio-economic%20benefits%20of%20a%20fairer%20balance%20between%20tech%20giants%20and%20telecom%20operators%20by%20axon%20for%20etno.pdf>).

technological race but no longer have the financial margins to support this approach. Hence, there has been a significant delay in the deployment of 5G in Europe compared to Switzerland, South Korea, and the US.

For several months, Thierry Breton and Margrethe Vestager have been defending the idea that digital giants should 'participate' in the financing of telecommunications networks. In May 2022, Thierry Breton declared, 'The principle is accepted. The rules that have been in place for twenty years have run out of steam and operators no longer get a fair return on their investments. We need to reorganize the fair remuneration of networks.'<sup>4</sup> In early February 2023, he added that 'at a time when technology companies are using most of the bandwidth and telecom operators are seeing their return on investment fall, this raises the question of who pays for the next generation of connectivity infrastructure.'<sup>5</sup> At the end of February, he presented a public consultation on the future of connectivity infrastructure by 2030 to determine what should be done in terms of regulation and financing.<sup>6</sup>

This consultation is the first step towards a possible European regulation and is supported by France, Spain, and Italy. Other countries such as Germany, the Netherlands, and Denmark are being more cautious.

Axon's arguments and the Commission's plans are not unanimously supported. The Body of European Regulators for Electronic Communications (BEREC) issued a preliminary cautious assessment of this approach at the end of 2022.<sup>7</sup> According to this advisory body to the European Commission, an intervention to change the sharing of value between players would not be desirable. This is because, on the one hand, 'the internet has proven its ability to cope with increasing traffic volumes, changes in demand patterns, technology, business models, as well as in the (relative) market power between market players.' On the other hand, it would be difficult to provide evidence of 'free riding' by content and application providers (CSPs or CAPs) at the expense of internet service providers (ISPs).

**Taxation:** Eliminate the €1.5 billion in production taxes such as the flat-rate tax on network companies (Imposition Forfaitaire des Entreprises en Réseau, IFER), which are imposed in addition to higher taxes on profits than those paid by other companies in France and Germany.

It must be said that above all that the current approach risks missing the real issues – namely, the structural factors holding back wealth creation in the European telecommunications sector.

## Taxation

The telecom sector's capacity for development is hampered by burdensome double taxation. Production taxes in the EU are twice as high as in other market sectors. This is in addition to corporate taxes, which are also abnormally high at eight percentage points above that in other economic sectors in France and Germany.

Production taxes net of subsidies on telecommunications were €2.6 billion in 2020, representing 1 per cent of telecoms revenues. This proportion is twice as high as in the general market economy, where production taxes average 0.5 per cent<sup>8</sup> of revenues.

In France, these production taxes represent 3.1 per cent of telecoms revenues, compared to an average of 1.4 per cent of revenues in the market economy. The existence of the IFER hampers the development of France's telecom players.

Compounding the problem is the fact that the tax burden on profits is also higher for telecom companies in France and Germany. The average corporate tax rate levied on Orange S.A. was 39 per cent<sup>9</sup>, compared to 31 per cent for large public companies in

<sup>4</sup> See, for example, Dumoulin, S., and Perrotte, D. (2022) 'Bruxelles veut faire payer les réseaux télécoms aux Gafam', Les Echos, 3 May 2022 (<https://www.lesechos.fr/tech-medias/hightech/bruxelles-veut-taxer-les-gafam-pour-financer-les-reseaux-telecoms-1404614>), and Piquard, A., and Pinaud, O. (2022) 'Faire payer les télécoms par les géants du Web? La bataille sera longue', Le Monde.fr, 9 September 2022 ([https://www.lemonde.fr/economie/article/2022/09/09/faire-payer-les-telecoms-par-les-geants-du-web-la-bataille-sera-longue\\_6140954\\_3234.html](https://www.lemonde.fr/economie/article/2022/09/09/faire-payer-les-telecoms-par-les-geants-du-web-la-bataille-sera-longue_6140954_3234.html)).

<sup>5</sup> Schmitt, F. (2023) 'Bruxelles entrouvre la porte au financement des réseaux télécoms par les Big Tech', Les Echos, 9 February 2023 (<https://www.lesechos.fr/tech-medias/hightech/bruxelles-entrouvre-la-porte-au-financement-des-reseaux-telecoms-par-les-big-tech-1905183>).

<sup>6</sup> Schmitt, F. (2023) 'L'UE entre dans le vif du sujet du financement des réseaux télécoms par les Big Tech', Les Echos, 23 February 2023 (<https://www.lesechos.fr/tech-medias/hightech/lue-entre-dans-le-vif-du-sujet-du-financement-des-reseaux-telecoms-par-les-big-tech-1909393>).

<sup>7</sup> BEREC (2022) 'BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs' (<https://www.berec.europa.eu/en/document-categories/berec/opinions/berec-preliminary-assessment-of-the-underlying-assumptions-of-payments-from-large-caps-to-isps>).

<sup>8</sup> Calculations by Institut économique Molinari based on Eurostat, national accounts aggregate by branch (up to NACE A\*64) for telecommunications (J61) and the market economy (industry and construction B-F, trade and services and repairs G-J+M-N+S95, excluding finance-insurance K and real estate L).

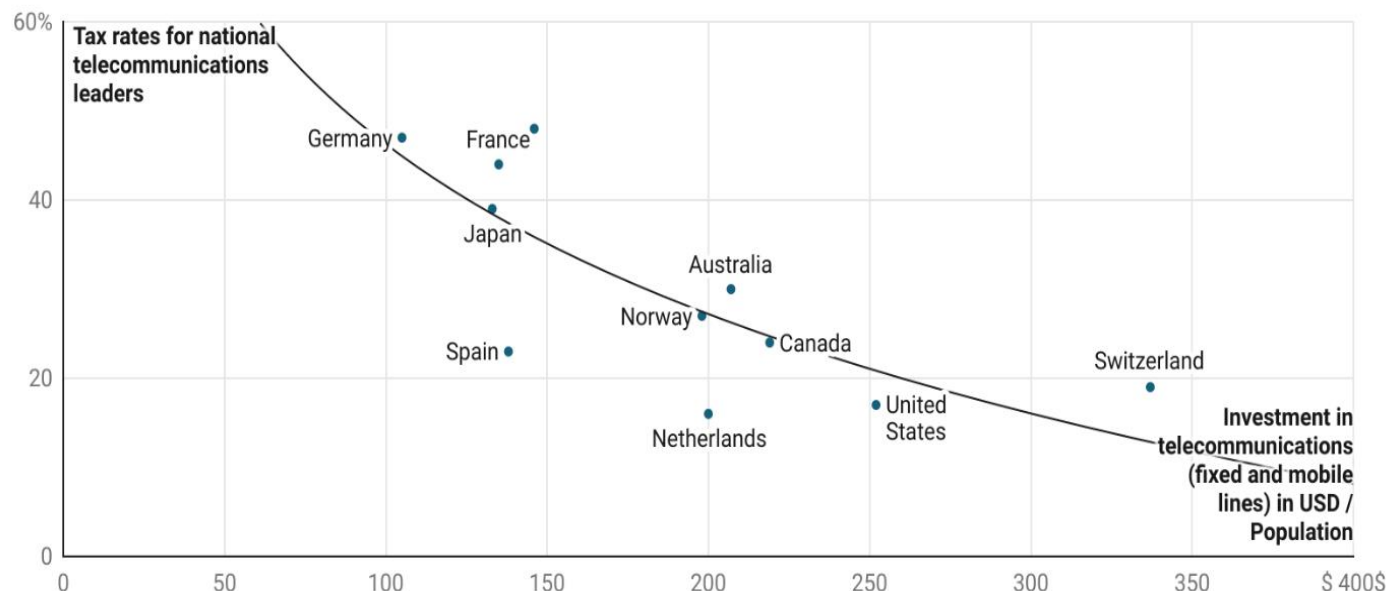
<sup>9</sup> Calculations by Institut économique Molinari based on Orange's 2020 and 2021 tax transparency reports, 2020 data corrected to neutralize an exceptional refund related to a tax overpayment for the 2005-2006 period.

France over the past 20 years. In Germany, Deutsche Telekom's average corporate tax rate was 37 per cent, versus 28 per cent for other large German companies. In these two countries, telecoms and network activities are at a major disadvantage with respect to firms that can deduct their intangible investments (R&D, etc.). In contrast, the taxes for telecoms in the US is less than the average for large US companies.

**Competition law:** Abandon the 'magic number' of three to four operators per member state. It stifles innovation by maintaining players who have a customer base that is ten times smaller than in the US.

European telecom players lack sufficient market power to pass on the additional costs of taxation to consumers. Consequently, this over-taxation hinders their capacity for investment in 5G or fibre optics.

**Figure 1: Income tax rate of telecoms leaders versus per capita telecoms investment, by country (2002–2018)**



Source: Calculations by Institut économique Molinari based on S&P Capital IQ, companies in the S&P Global 1200 index with integrated telecommunication services as their main activity and OECD (The Telecommunications Database 2020) for the period 2002-2018.  $R^2 = 0,62$ .

### Competition law

The EU is home to more than 40 mobile providers that serve 445 million inhabitants, with competition authorities pushing for each member state to maintain at least three or four.<sup>10</sup> In comparison, the US has three main providers for a market of 332 million inhabitants. This translates to one provider for every 111 million customers, compared with one for every 11 million inhabitants in the EU.

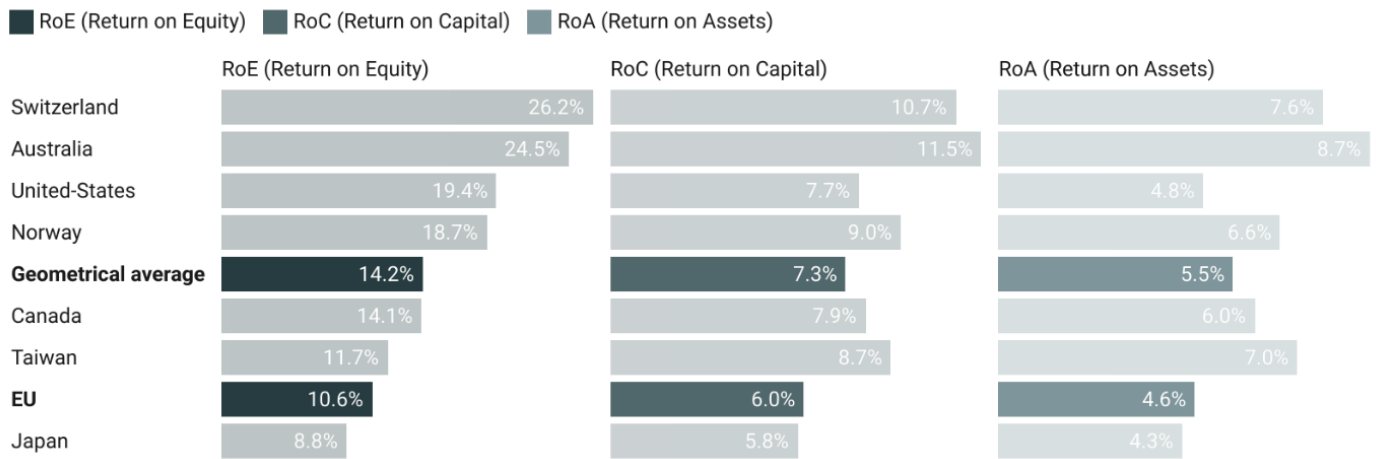
European providers' return on equity is well below that of most developed countries, averaging 10.6 per cent per year over the period 2002–2022 in the EU, compared to 14.2 per cent worldwide and 19.4 per cent in the US.

Europe's static approach to competition prevents the consolidation of telecom players and perpetuates a rigid and fragmented market structure.<sup>11</sup> Authorities block companies from merging, which reduces development capacity and slows innovation. This will inevitably reduce the value for money of the services offered to households and businesses.

<sup>10</sup> See Cave, M., Genakos, C., and Valletti, T. (2019). The European framework for regulating telecommunications: a 25-year appraisal. Review of Industrial Organization 55: 47–62. doi:10.1007/s11151-019-09686-6.

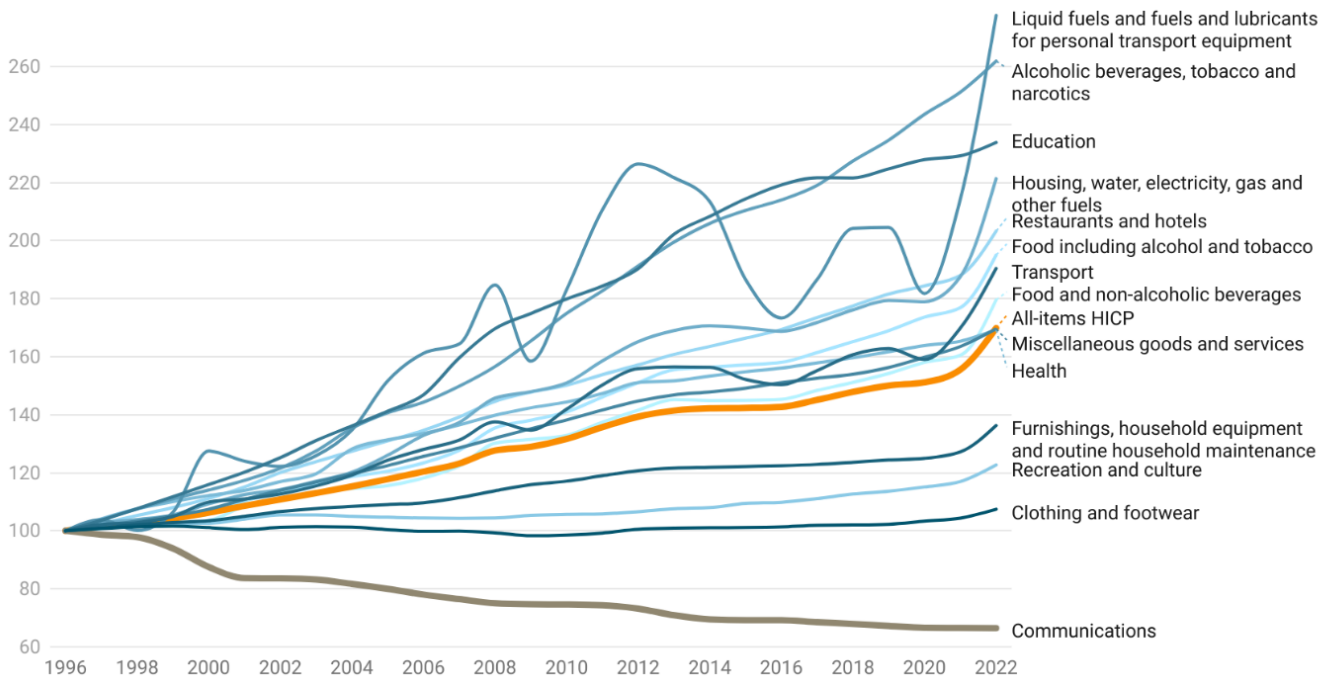
<sup>11</sup> Mukherjee, S. et Pollina, E. (2022, 24 February). Explainer: Why Europe's mobile telecom market is ripe for consolidation. Reuters. (<https://www.reuters.com/business/media-telecom/why-europes-mobile-telecom-market-is-ripe-consolidation-2022-02-24/>).

**Figure 2: EU telecoms have abnormally low profitability (2002–2022)**



Source: Institut économique Molinari calculations based on S&P Capital IQ, S&P Global 1200, Integrated Telecommunication Services, geometric means.

**Figure 3: Telecoms prices are among the few that have fallen in the EU over the period 1996–2020 (base 100 in 1996).**



Source: Calculations by Institut économique Molinari based on Eurostat (HICP, annual data, base 100 in 1996).

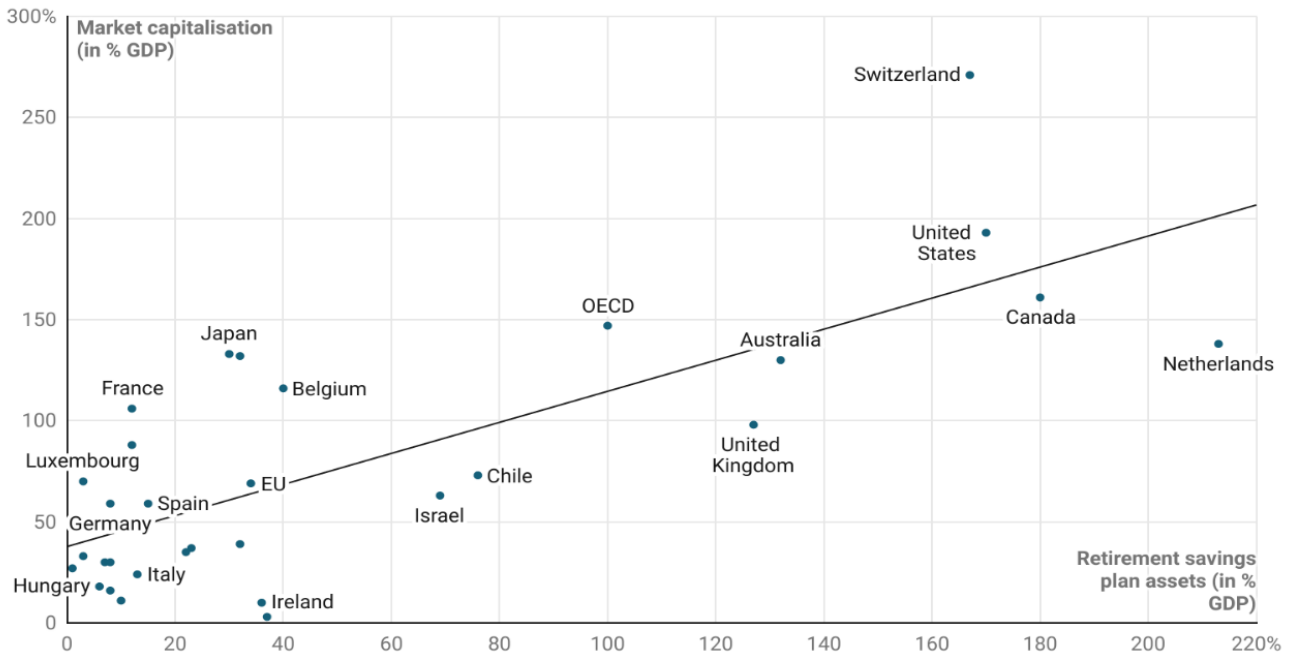
**Long-term savings: Make up for a long-term savings deficit of €10,000 billion**

The EU has a market capitalisation deficit of €10.4 trillion when compared with the Organisation for Economic Co-operation and Development (OECD). At the end of 2020, the market capitalisation of EU companies represented 70 per cent of the GDP, compared to an OECD average of 147 per cent. France, with a market capitalisation of 106 per cent of the GDP, was somewhat behind the OECD average, while other European countries were even further behind. Notable among them is Germany, with a market capitalisation representing only 59 per cent of the GDP.

This situation is largely due to the underdevelopment of pension funds and retirement savings. Compared with the OECD average at the end of 2020, the EU had a shortfall of €8.9 trillion in long-term savings. At the end of 2021, pension funds

represented 34 per cent of the GDP in Europe, compared with the OECD average of 100 per cent. France, with pension funds at 12 per cent of the GDP, was far behind the OECD average, as was Germany at a mere 8 per cent.

**Figure 4: The development of retirement savings and equity market capitalisation go hand in hand (as percentage of the GDP at the end of 2020)**

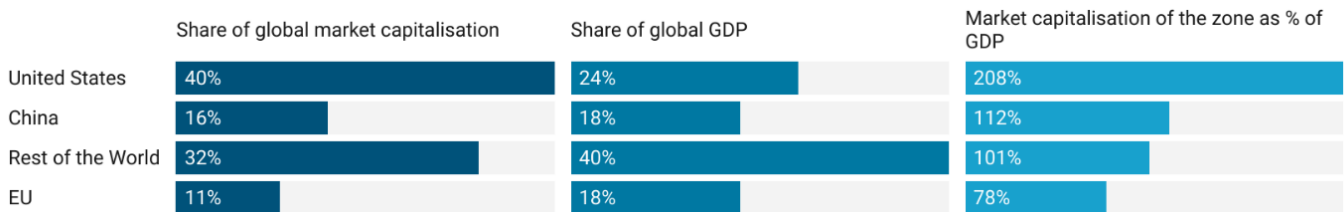


Source: Calculations by Institut Économique Molinari with World Federation of Exchanges.  $R^2 = 0,57$

The North American configuration – boasting a complete ecosystem for financing innovation from venture capital to the stock market, which is largely fuelled by the capital of long-term investors such as pension funds – is absent in Europe.<sup>12</sup> This contributes to less innovation and a rise in European dependency.<sup>13</sup>

To make matters worse, European regulations are now working to artificially reduce the equity investment capacity of institutional investors such as insurers (Solvency II<sup>14</sup>), governments (pushed to divest reserves to reduce debt and deficits), and even private individuals (with a MiFID II directive that fails to take into account the particular features of long-term savings).<sup>15</sup>

**Figure 5: European equity markets outperformed by the US and China (end of 2021)**



Source: Calculations by Institut Économique Molinari with World Federation of Exchanges and World Bank

<sup>12</sup> Task force investissement de long terme de la place de Paris présidée par Gérard de la Martinière (2018). Oser le Long Terme. Refonder l'investissement pour l'Europe de demain (p. 1 à 66). ([www.af2i.org/docs/actualites/docs/1189/FR\\_-\\_Rapport\\_LTI.PDF](http://www.af2i.org/docs/actualites/docs/1189/FR_-_Rapport_LTI.PDF)).

<sup>13</sup> Bechetoille, T., Boujnah, S. et Blard, T. (2019, 31 December). L'entrée en Bourse, un moyen de transformer l'essai. Les Echos Executives (<https://business.lesechos.fr/entrepreneurs/financer-sa-croissance/0602462265492-l-entree-en-bourse-un-moyen-de-transformer-l-essai-334042.php#Xtor=AD-6000>).

<sup>14</sup> See Pénasse, J. et Dezorme, F. (2021). Une évaluation de l'impact du cadre Solvabilité 2 sur la détention action des assureurs. Paris : Institut Louis Bachelier (<https://www.institutlouisbachelier.org/wp-content/uploads/2021/03/rapport-impact-du-cadre-solvabilite-2-sur-la-detention-action-des-assureurs.pdf>).

<sup>15</sup> Solal, C. (2022, 21 September). La révision de Solvabilité 2 pourrait avoir « un impact limité » sur l'investissement en actions. L'Agefi (<https://www.agefi.fr/news/banque-assurance/la-revision-de-solvabilite-2-pourrait-avoir-un-impact-limite-sur-linvestissement-en-actions>).

The EU has been overtaken by the US, but it is also losing ground to the rest of the world in equity markets that are key to financing innovation.

At the end of 2022, the total capitalisation of EU stock exchanges was €9.9 trillion, roughly a quarter of the size of the American stock exchanges (€37.7 trillion for the NYSE plus Nasdaq). The largest EU stock exchange, Euronext, was one-quarter as big as the NYSE (traditional US stocks) and one-third as big as the Nasdaq (technology stocks).

**Figure 6: Top fifteen equity markets in the world (end of 2022)**

Stock market	Equity market capitalisation at the end of 2022 (€ billion)	Zone
NYSE	22,500	United States
Nasdaq US	15,200	United States
Shanghai Stock Exchange	6,300	China
<b>Euronext</b>	<b>5,700</b>	<b>EU (France, Belgium, Ireland, Italy, Netherlands, Portugal + Norway non EU)</b>
Japan Exchange Group	5,000	Japan
Shenzhen Stock Exchange	4,400	China
Hong Kong Exchanges and Clearing	4,300	China
National Stock Exchange of India	3,200	India
LSE Group London Stock Exchange	2,900	United Kingdom
TMX Group	2,600	Canada
Saudi Exchange	2,500	Saudi Arabia
<b>Deutsche Boerse AG</b>	<b>1,800</b>	<b>UE (Germany)</b>
<b>Nasdaq Nordic and Baltics</b>	<b>1,700</b>	<b>EU (North + Iceland non EU)</b>
SIX Swiss Exchange	1,700	Switzerland
ASX Australian Securities Exchange	1,600	Australia

Source: Institut Économique Molinari with World Federation of Exchanges

If we want to redress these imbalances and prevent Europe from becoming a 'digital colony'<sup>16</sup> of the US and China in the long term because of its inability to fund innovation, these financing issues should be considered high priority.

<sup>16</sup> Morin-Desailly, C. (2013). *L'Union européenne, colonie du monde numérique ? [Rapport d'information au nom de la commission des affaires européennes no 443]* ([https://www.senat.fr/rap/r12-443/r12-443\\_mono.html](https://www.senat.fr/rap/r12-443/r12-443_mono.html)).

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