

Europe should not neglect its capital markets union

Maria Demertzis, Marta Domínguez-Jiménez and Lionel Guetta-Jeanrenaud

Executive summary

MARIA DEMERTZIS (maria.demertzis@bruegel.org) is Deputy Director at Bruegel

MARTA DOMÍNGUEZ-JIMÉNEZ (marta.dominguez@bruegel.org) is a Research Analyst at Bruegel

LIONEL GUETTA-JEANRENAUD (lionel.jeanrenaud@bruegel.org) is a Research Assistant at Bruegel

This Policy Contribution was produced with the financial support of the European Forum Alpbach

THE COMPLETION OF EUROPE'S capital markets union is desirable not only from a financial stability stand-point. Equity-based financing is also better suited than banks to finance high growth sectors (such as digital and hi-tech) where most capital is intangible. Additionally, stock markets reallocate funds towards less-polluting sectors more efficiently than banks, and provide incentives for carbon-intensive sectors to develop greener technologies.

CAPITAL MARKET UNDERDEVELOPMENT in Europe is evident when comparing company financing structures to other advanced economies. Even listed companies in Europe are substantially more bank-financed than in the United States, while the aggregate market capitalisation of listed firms is much smaller relative to GDP. Venture capital investments are ten times higher in the US than in Europe (as a share of GDP), and even more so in a handful of Asian countries (Singapore, China, India). European companies, especially in tech, are much more likely to be acquired by American firms than the other way around.

SIMULTANEOUSLY, EU INSTITUTIONAL investors are comparatively underinvested in equity products, and a large share of their existing equity investments is in extra-euro-area stocks (chiefly in the US).

THIS IS UNSURPRISING considering that the market premium or country risk premium (the difference between the internal rate of return on equities and the risk-free rate) is around four percentage points higher in EU countries than the US. This indicates that only companies that cross a much higher returns threshold can access equity financing.

AN UPDATED EUROPEAN Commission capital markets union action plan, published in September 2020, contains interesting proposals but the language remains vague. Possible legislative progress could come from reforming the European Securities and Markets Authority into a strong centralised authority, reviewing the legislative framework that applies to institutional investors in order to facilitate equity investments, and harmonising business insolvency laws and their application.

Recommended citation

Demertzis, M., M. Domínguez-Jiménez and L. Guetta-Jeanrenaud (2021) 'Europe should not neglect its Capital Markets Union', *Policy Contribution* 13/2021, Bruegel

1 Introduction

The European Union's capital markets remain very underdeveloped compared to the United States. The market for equity, as measured as the size of the total market capitalisation of listed domestic firms relative to GDP, is much larger in the US and in Japan than in Europe. That said, within Europe there are major differences. There are a handful of countries (Luxembourg, Ireland, Sweden, Denmark, the Netherlands) where total market capitalisation is much larger.

In Europe, listed companies are less likely to finance themselves on the stock market than in the US (as measured by the distribution of debt-to-equity ratios of listed firms). The level of venture capital investment is nearly ten times higher (relative to GDP) in the US than in European countries. A handful of Asian countries (Singapore, China, India) have very dynamic venture capital funds. European companies are also much more likely to be acquired by American firms than the other way around. This trend is even stronger in sectors including technology and finance.

From the investor side the picture is mixed, but overall investment in domestic equities in Europe is far less substantial than in the US. EU pension funds lag behind the US as a source of domestic equity investment on three levels: total outstanding pension fund assets are substantially less, a smaller share is invested in equities, and many of these equity investments take place outside the euro area. The picture is comparatively more encouraging for insurance companies and investment funds, but a limited focus on EU equities is evident across the board.

Finally, the country risk premium (the difference between the internal rate of return on equities and the risk-free rate) is much higher in EU countries than in the US (4 percentage points in recent years for the least-risky country, Germany). This means that the market premium is much higher in Europe: companies must in effect reach a much higher returns threshold to access equity financing.

Moving forward with the EU capital markets union (CMU) initiative is more urgent than ever. Capital markets, when well developed, function as good shock absorbers: in the US, they absorbed 22 percent of shocks related to the Great Financial Crisis (Milano, 2017). Furthermore, digitalisation requires investments in intangible capital, which banks are not well suited to finance as it cannot easily be collateralised. The EU will therefore face financial constraints in terms of financing the knowledge economy. There are also green transition benefits: studies have found stock markets reallocate funds towards less-polluting sectors more efficiently and provide incentives for carbon-intensive sectors to develop greener technologies (section 2).

On the regulatory side, the European Commission published a new Action Plan on CMU in September 2020. It set out sixteen legislative and non-legislative measures, including proposals that consider or seek to monitor issues that can help advance CMU. However, regulatory proposals have not been very successful so far in helping advance the creation of a unified capital market in the EU.

2 Why CMU is needed

There are three main reasons why the development of deeper and more integrated capital markets is paramount for the EU (and euro-area) economy. Discussions on CMU have largely focused on its financial-stability benefits. These are important, but a second, oft-neglected reason for CMU relates to the financing of high-growth sectors: banks are poorly equipped to finance high-risk, high-potential initiatives that rely heavily on intangible capital (cannot

The economic literature suggests strongly that purely bank-based financial systems are more prone to crises

serve as collateral). Third, there is some evidence that equity financing is positive in terms of emissions mitigation. This section explores each of these reasons in turn.

On financial stability, the economic literature suggests strongly that purely bank-based financial systems are more prone to crises. In the euro area specifically, cross-border capital-market integration can also be an important complement to fiscal risk-sharing. CMU would be a key component in the completion of Economic and Monetary Union, which would provide greater resilience to the financial system and the broader economy.

Numerous studies support this. Langfield and Pagano (2016) found an increase in banking-system size relative to debt and equity capital markets is associated with greater systemic risk, especially during housing market crises. This results from an overextension and misallocation of credit by banks when asset prices grow. Banks then pull back when prices drop. Pagano *et al* (2014) explored the prevalence of this in the EU, and found the supply of bank credit to be more volatile than credit from debt capital markets, with a negative effect on financial and real instability. Bernanke *et al* (1999) explained the mechanisms that lead to high volatility in the supply of bank credit. Shocks affect the value of bank equity and collateral, affecting bank lending, which in turn feeds back into the value of bank equity and collateral. This feedback loop is much weaker in systems in which market finance is prevalent (Gambacorta *et al*, 2014).

The European Central Bank (2017) advocated for CMU completion to secure these financial stability benefits, with deeper and more integrated markets increasing resilience. Cross-border private financial risk-sharing would support the functioning of EMU by smoothing the effects of economic cycles. Cross-border equity investment can be a better shock absorber than more volatile banking flows. ECB (2017) also found the extent of risk-sharing between euro-area countries was associated with the contribution of capital markets, and that more integrated capital markets would support the smooth and homogenous transmission of monetary policy.

Numerous studies, meanwhile, have highlighted the importance of capital markets as shock absorbers in the US.

Milano (2017) studied the main channels of risk sharing in the euro area and the US between 2007 and 2014, finding that capital markets absorbed 22 percent of shocks in the US and only 2 percent in the euro area. For context, the smoothing effect of fiscal transfers was also 22 percent for the US, and virtually zero in the euro area. As a result, total shock-smoothing was far less in the euro area (and almost exclusively through savings). Considering the EU-US differential in terms of shock absorption capacity is similar for capital markets and fiscal transfers, it is worth asking why so much effort in the EU has been devoted to the fiscal question, and not very much to deepening and integrating capital markets.

The second reason why development of capital markets is important for Europe is especially relevant in the post-pandemic environment. Deep and efficient capital markets are needed to finance Europe's recovery. Purely bank-financed systems are associated with lower levels of growth, because banks are not well-suited to finance innovation or growth based on intangible capital. Equity-based financing is more suited for financing high-risk investments. Intangible capital is concentrated in high-growth sectors and the knowledge economy (Beck *et al*, 2020), meaning Europe is poorly placed to capitalise (Abele *et al*, 2020). In lieu of the current economic environment, the investments of institutional players, including pension funds and insurance companies (after a decade of very low fixed income yields), could be a significant source of finance for firms in the recovery.

Europe's venture capital markets are underdeveloped. Duruflé *et al* (2017) showed how this makes accessing finance harder for scale-ups with the resulting negative consequences for growth. Engel and Keilbach (2007) found that venture capital investors are successful at picking winners over losers within a market and their absence thus entails the loss of an effective instrument for this. Market-based systems allow for a much wider range of investors, or investors that "*disagree*" as stated by Brynjolfsson *et al* (2014). Of these investors, the more optimistic tend to finance projects that are risky but potentially transformational. High-tech

sectors in economies with deeper equity markets exhibit disproportionately higher levels of innovation. Hsu *et al* (2014) found this empirically, while Allen and Gale (2000) made the associated theoretical argument.

Finally, De Haas and Popov (2019) found that, for given levels of economic and financial development and environmental regulation, economies that are relatively more equity-funded have lower CO2 emissions *per capita*. They argued that this is linked to the fact that stock markets reallocate funds to less-polluting sectors more efficiently than banks. Stock markets also provide incentives for carbon-intensive sectors to develop greener technologies (publishing of green patents increases as stock markets deepen). These conclusions are a warning to policymakers to not rely too heavily on the banking sector to tackle climate change, but rather to eliminate tax benefits that favour debt over equity, and to advance the completion of the Capital Markets Union.

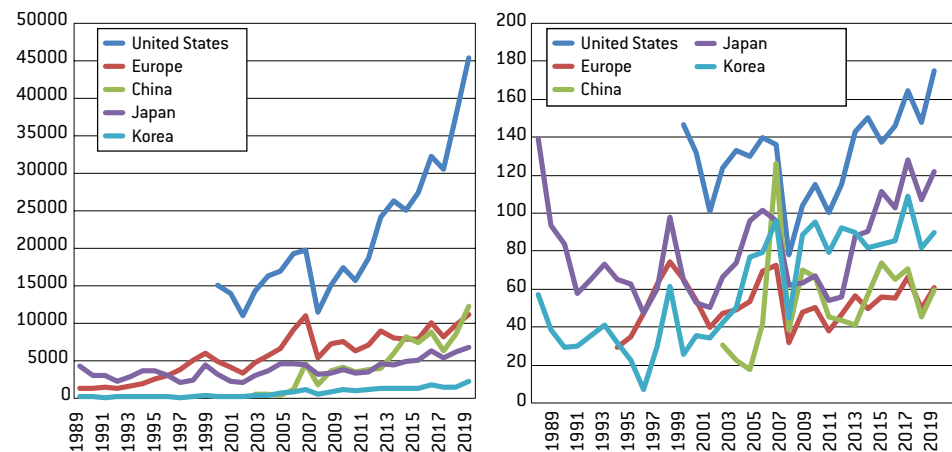
3 Understanding how companies finance their activities

Do companies finance themselves primarily on the stock markets or through other means? How important is equity versus credit in the financing structures of large firms? What is the size of the equity market? And what are the options for young firms to obtain financing?

3.1 Size of equity markets

Figure 1 shows the total market capitalisation of domestic firms in the US, China, South Korea and Europe (EU27 + Norway) in billions of dollars and percent of GDP. While the total market capitalisation of listed domestic firms in Europe has remained beneath or slightly above \$10 trillion during the past fifteen years, it has exploded in the US, reaching \$45 trillion in 2020. This corresponds to a market for equity for US firms of 175 percent of GDP (against 122 percent for Japan, 60 percent for Europe and 59 percent for China).

Figure 1: Total market capitalisation (\$ billions and % of GDP)



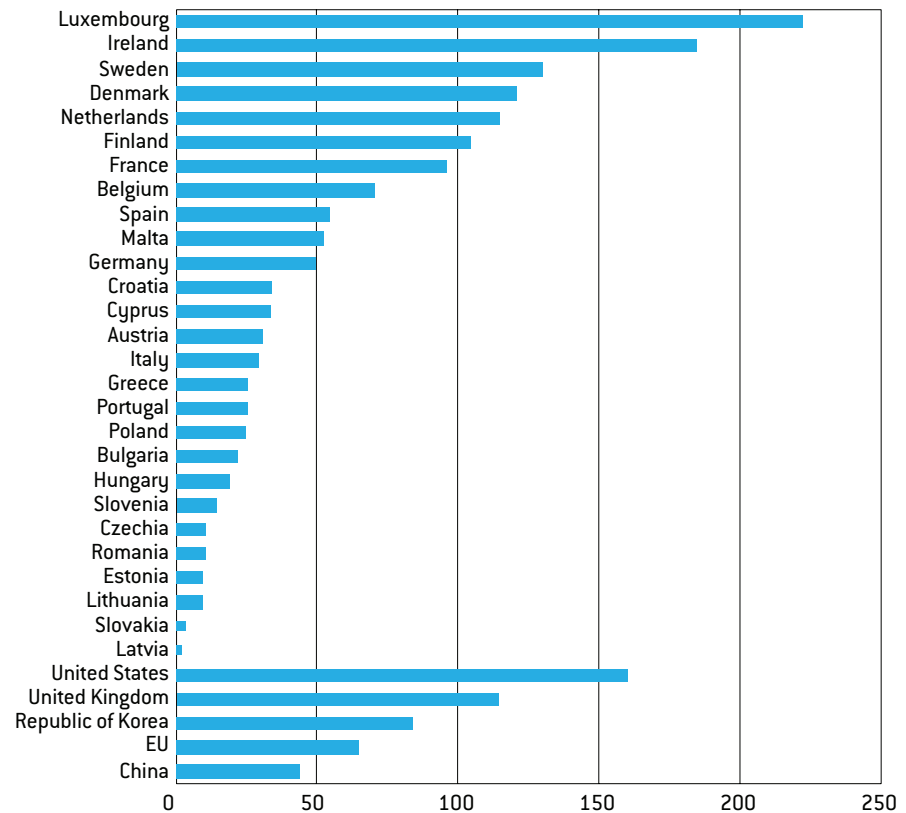
Source: Bruegel based on World Federations of Exchanges database.

The size of the market capitalisation of American listed firms is primarily the result of a handful of huge companies whose valuations have increased exponentially. In fact, Europe counts more listed domestic companies (about 7000 in 2019) than the US (about 5000).

While the total market capitalisation of domestic firms in Europe is small relative to the

US or to Japan, there are huge differences between European countries (Figure 2). Ireland and Luxembourg both have higher levels of market capitalisation relative to GDP than the US (at 185 percent and 222 percent respectively). At the other end of the spectrum, the market capitalisation of listed firms in Latvia, Slovakia, Lithuania and Estonia are all below 10 percent of GDP. This indicates that the size of the market for equity varies immensely from one EU country to another and development of country-level credit markets is an essential step to completing CMU at European level.

Figure 2: Total market capitalisation of listed domestic firms (% of GDP), 2019



Source: Bruegel based on ORBIS (footnote 1).

3.2 Financing structures of listed firms

In order to better understand the financing structures of listed firms, we looked more specifically at the distribution of the debt-to-equity ratio, which we computed as follows using data from the ORBIS database¹:

$$\text{Debt-to-equity ratio} = \frac{\text{Total liabilities and debt}}{\text{Total shareholders' equity}}$$

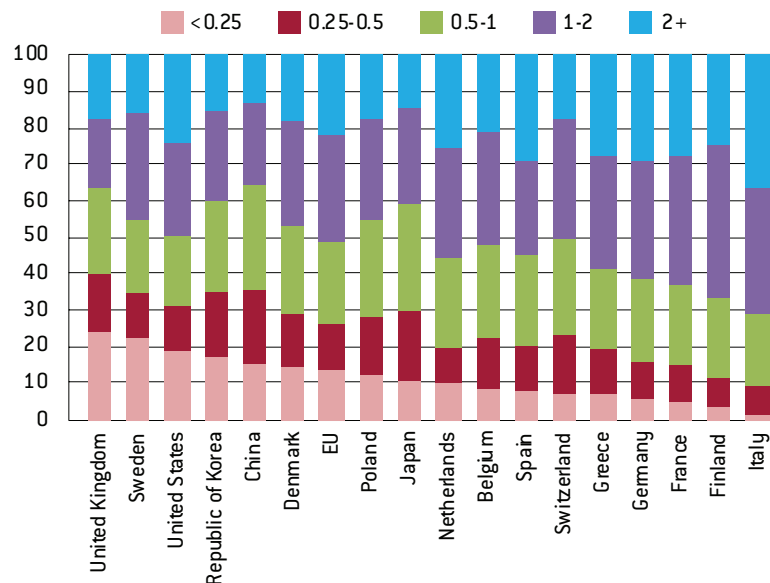
We excluded companies with negative shareholder equity. The average debt-to-equity of listed domestic firms in the EU is 1.41, meaning that European companies have \$1.41 of debt for every dollar of equity. European companies have, on average, higher debt-to-equity ratios than companies in the US (1.02), China (1.09), Japan (1.20) and South Korea (1.14). Figure 3 provide additional information about the distribution of these ratios.

American and British listed firms are more likely to have low debt-to-equity ratios than their European counterparts, meaning that their financing relies more on shareholder equity

¹ <https://www.bvdinfo.com/en-gb/our-products/data/international/orbis>.

than it does on debt. Of listed American firms, 18 percent have debt-to-equity ratios below 0.25, compared to 12 percent in the EU. The difference is even more striking when comparing with the major EU economies: 8 percent of Spanish firms, 6 percent of German firms, 5 percent of French firms and less than 1 percent of Italian firms have debt-to-equity ratios below 0.25. In other words, companies in the largest European economies rely relatively less on equity than their American or Chinese counterparts.

Figure 3: Distribution of debt-to-equity ratios of listed domestic firms (2019) in the EU (non-financial sectors)



Source: Bruegel based on ORBIS (footnote 1).

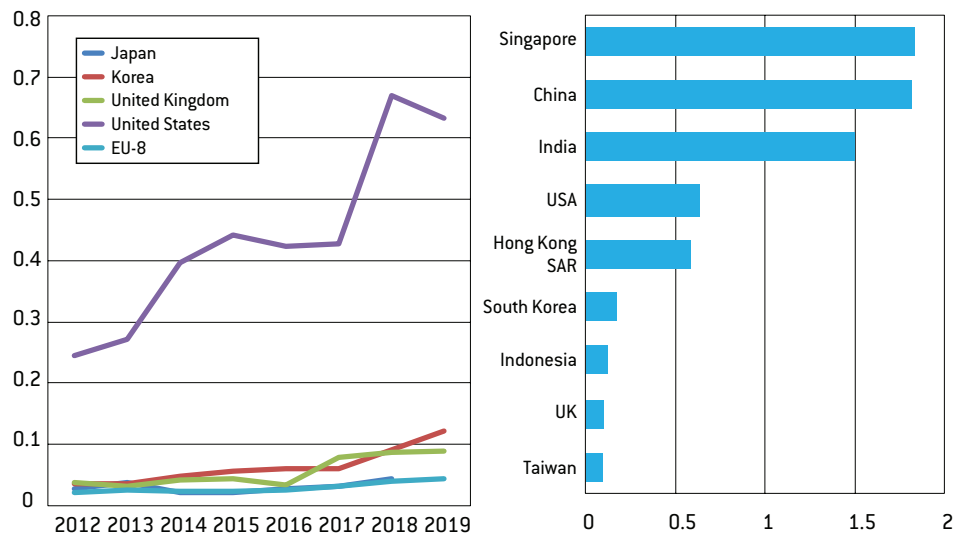
3.3 Financing structures of private firms

While debt-to-equity ratios provide some insights into the financing structures of large, listed firms, it may be that young, private firms rely much more on bank loans than listed companies. To assess this, we looked at some of the main sources of financing for private firms: venture capital activity, survey data on bank loans and data on mergers and acquisitions.

3.3.1 Venture capital investment

Venture capital funds play a central role in capital markets by spotting young, promising companies and by getting involved in their development. Figure 4 shows, for a selection of countries, the amount of venture capital investment as a share of GDP. The amount of VC investment is more than ten times lower in European countries than in the US (0.044 percent of GDP versus 0.633 percent). Meanwhile, venture capital has been growing in Asian countries, most notable Singapore, China and India, reaching 1.83 percent, 1.82 percent and 1.5 percent of GDP respectively.

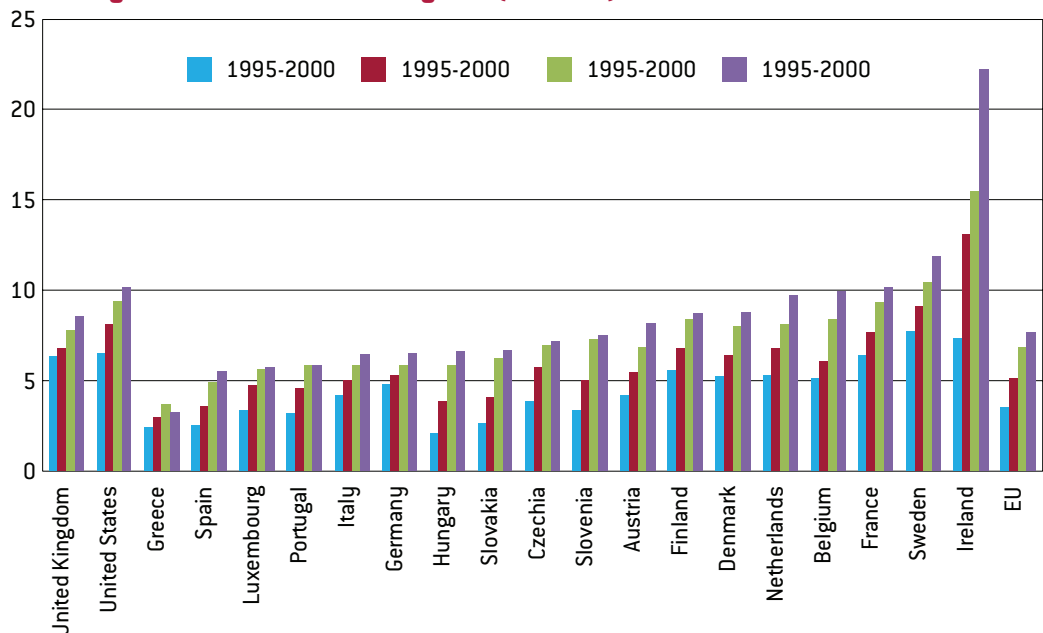
Figure 4: VC investment to GDP from 2012 to 2019 (left) and selected Pacific countries in 2019 (right)



Source: Bruegel based on OECD, Bain. Note: EU8 = France, Germany, Italy, Spain, Netherlands, Belgium, Austria, Sweden.

While venture capital investment provides a snapshot of how markets finance themselves and spot new, promising companies, the numbers also provide insights into the types of industries that might struggle to obtain finance in the future. As we have noted, the role of intangibles in the future of the economy is increasing, especially in the digital economy. Instead of requiring financing to acquire buildings and machines, they have invested in software, data, research and development, intellectual property or employee traineeships. According to Corrado *et al* (2016), European countries invested an average of 3.5 percent of GDP in intangible capital between 1995 and 2000. From 2014 to 2017, that number rose to 7.6 percent, while it was over 10 percent in the United States (Figure 5).

Figure 5: Investment in intangibles (% of GDP)

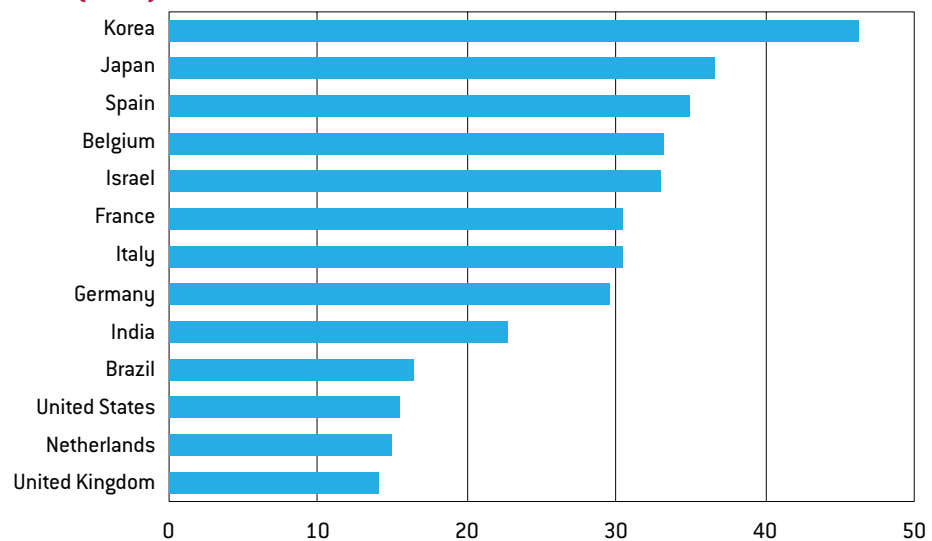


Source: Bruegel based on INTAN-Invest. Note: Intangibles include computer software and databases, entertainment, artistic and literary originals, mineral explorations, design, new product development costs in the financial industry, research and development, branding, organisational capital and training.

As companies increasingly rely on intangible forms of capital in their business models, it is becoming harder and harder for them to finance themselves through the traditional channel of bank loans. While tangible capital can serve as collateral, enabling banks to protect their loans, intangible capital cannot. Haskel and Westlake (2017) viewed “*non-rivalry*” and “*low market value*” as two defining aspects of intangible capital.

Figure 6 presents results from the OECD Future of Business Survey² from 2017, a survey on small to medium sized enterprises with a digital presence. Respondents were asked what sources of funding they used to create their businesses. While 45 percent of South Korean respondents funded their business in part through loans from banks, less than 15 percent of UK respondents did. European entrepreneurs (Spain, Belgium, France, Italy and Germany) were significantly more likely than their American counterparts to take out loans to create their businesses.

Figure 6: Share of respondents that funded their businesses in part through banks loans (2017)



Source: OECD Future of Business Survey (footnote 2).

Taken together, these numbers confirm what was already apparent for listed companies: that EU businesses, even in industries that tend to invest more in intangible capital, rely more on bank loans than businesses in the US or in the UK. As intangible capital becomes an increasingly important part of the economy, the absence of strong capital markets in Europe will become more problematic.

3.3.2 Mergers and acquisitions

Another way for start-ups to scale-up without necessarily benefitting from venture capital investment is through mergers and acquisitions. But mergers and acquisitions can be either a route for young companies to obtain sufficient investment to grow, or can prevent them from capturing a share of the market. Table 1 shows that European firms are much more frequently acquired by American firms than the other way around. During 2019 and 2020, 13.4 percent of European firms targeted by an M&A were acquired by American companies. Conversely, only 4.2 percent of American firms targeted by an M&A were acquired by European firms. The difference is even more striking in the technology sector (Table 2): nearly 20 percent of acquired European firms were bought by American companies. These numbers also give an idea of the size of the market for young companies.

² See <https://www.oecd.org/sdd/business-stats/the-future-of-business-survey.htm>.

Table 1: Acquisitions of firms in 2019 and 2020

<i>Home of acquiring firms</i>	European firms		American firms	
	Frequency	Share	Frequency	Share
EU27	3877	66.1 %	583	4.2 %
United States	788	13.4 %	11602	82.7 %
United Kingdom	420	7.2 %	379	2.7 %
Other	780	13.3 %	1464	10.4 %

Source: Bruegel based on Bloomberg.

Table 2: Acquisition of tech firms in 2019 and 2020

<i>Home of acquiring firms</i>	European firms		American firms	
	Frequency	Share	Frequency	Share
EU27	638	57.8 %	136	4.9 %
United States	219	19.8 %	2265	82.3 %
United Kingdom	89	8.1 %	80	2.9 %
Other	158	14.3 %	270	9.8 %

Source: Bruegel based on Bloomberg.

The fact that European companies are being acquired in high numbers by American firms, especially in tech, is consistent with the scarcity of venture capital funds in Europe. In other words, the lack of access to VC investment makes young, promising companies even easier targets for foreign acquirers, further undermining the size of European capital markets.

The large numbers of acquisitions of technology start-ups (Table 2) has negative implications for the dynamism of markets, explained by the theory of harm. Parker *et al* (2021) reviewed very recent literature on the impact of M&A activity, particularly of acquisitions by big technology firms. They argued that high levels of M&A activity generate a “kill zone” effect by reducing market entry by other firms (hence dampening innovation) and reducing the supply of venture capital funding and investment. They also argued that while there is a very strong first-mover motive, which creates incentives for many firms to enter the market, it is not good for the development of full markets. In the presence of first-mover advantage, start-ups aim to grow large enough to be acquired by big technology firms. But as soon as one firm is bought there is little space for other acquisitions, which effectively kills all others in that particular market.

Other factors might account for the reluctance in Europe to take risks, ranging from cultural attitudes to debt, to how insolvency and bankruptcy laws are organised in each country. Coupled with the lack of appropriate finance and much lower M&A activity compared to the US, European young firms do not have the same opportunities as US firms to grow. So, downward pressure on interest rates is the result of greater macroeconomic risk that, coupled with greater inherent risk aversion, leads to much less dynamism in markets.

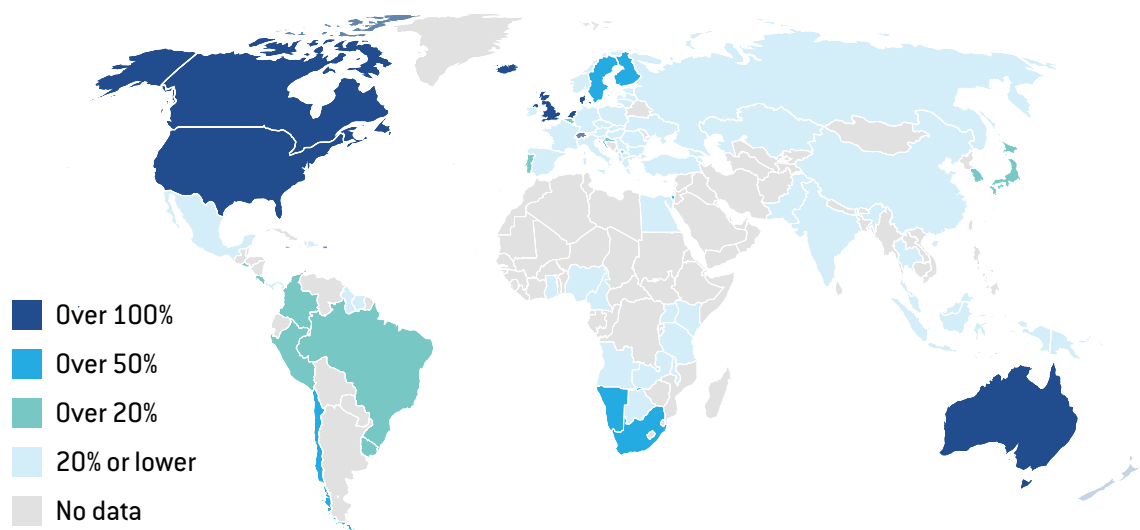
4 Investor capital

We look next at the asset side of the balance sheet. A quick analysis of the euro-area economy and its savings rate shows the existence of substantial investment firepower. We look at the extent to which this is invested in European capital markets and the remaining untapped potential by looking at breakdowns of the portfolios of large institutional investors: pension funds, insurance companies and investment funds. Overall, these institutional investors have been more conservative in Europe than in the US.

4.1 Pension funds and insurance companies

US pension funds hold approximately \$18.8 trillion in assets (over half the OECD total). If other types of retirement savings vehicles are included, the total nears \$30 trillion. In contrast, pension funds' assets in the euro area are only around €3 trillion, of which €1.8 trillion is in the Netherlands alone. This can be partly explained by the different retirement systems: pension funds are virtually non-existent in France and comparatively small in Germany, Italy and Spain. In contrast, there is \$3.6 trillion in pension fund assets in the UK and \$1 trillion in Switzerland. Figure 7 shows that bar the Netherlands and Denmark and, to a lesser extent, Sweden, EU countries have comparatively low pension fund assets as a share of GDP.

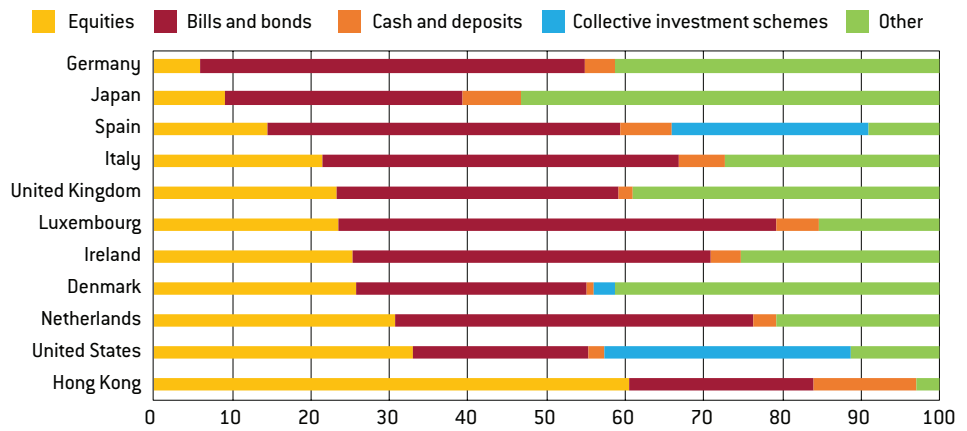
Figure 7: Assets in retirement plans per country, share of GDP (%)



Source: Bruegel based on OECD Global Pension Statistics.

Figure 8 shows a breakdown of pension fund assets based on OECD data for a selected list of countries. Total outstanding pension fund assets are lower in the euro area and are also comparatively underinvested in equities. The Netherlands, origin of the bulk of euro-area pension assets, has a higher share (about 30 percent) of equity investment than other major EU countries. While the OECD provides no additional breakdown for 'other', when contrasting these values with European Central Bank data, it can be inferred that, for euro-area countries, much of this is in investment funds and (to a lesser extent) financial derivatives.

Figure 8: Pension fund assets by asset class, % of the total

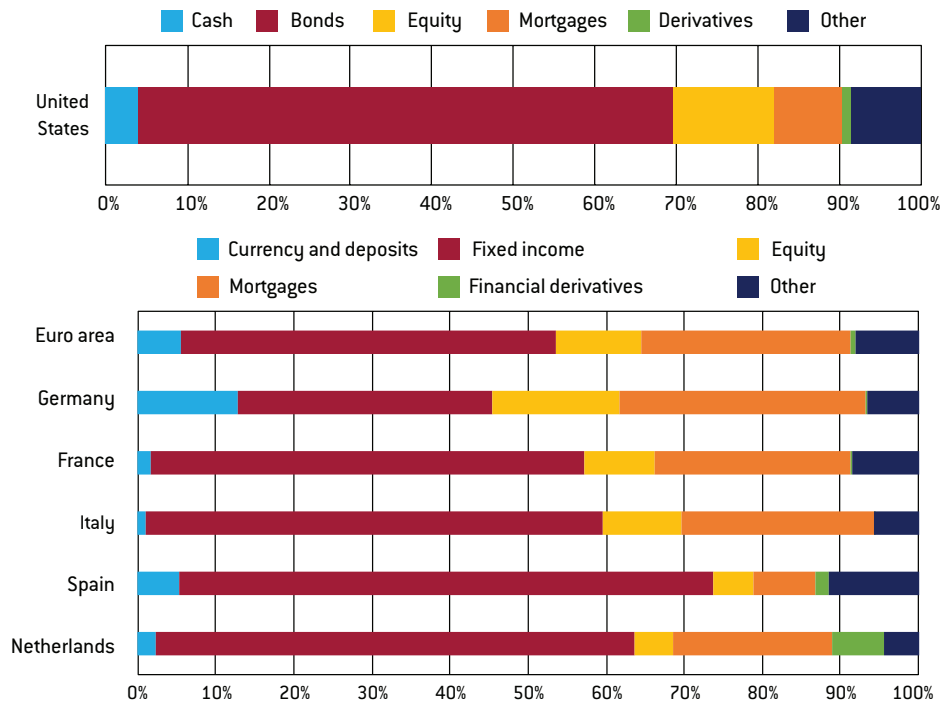


Source: Bruegel based on OECD, 'Pension Markets in Focus', No.17, 2020.

The investments of insurance companies in the euro area are close to €9 trillion compared to \$7 trillion in the US (or around €6 trillion). Of the euro area's €9 trillion, €3 trillion comes from Germany, €2.5 trillion from France and €1 trillion from Italy. Not only is the aggregate euro-area value a very significant source of investment demand, but common practice in Germany and France could have a very substantial effect on capital markets.

Figure 9 shows the breakdown (by asset class) of insurance company assets in the euro area, several euro-area countries and the US. Equities carry greater weight in insurance company portfolios in the US than in the euro area (at around 13 percent in the former compared to 11 percent for the latter), but they remain within the same ballpark. More surprisingly, the value for Germany is slightly above that of the US, at around 16 percent. That said, regardless of relative values, these remain fairly small numbers. Indeed, German insurance companies hold almost as much cash as they do equities.

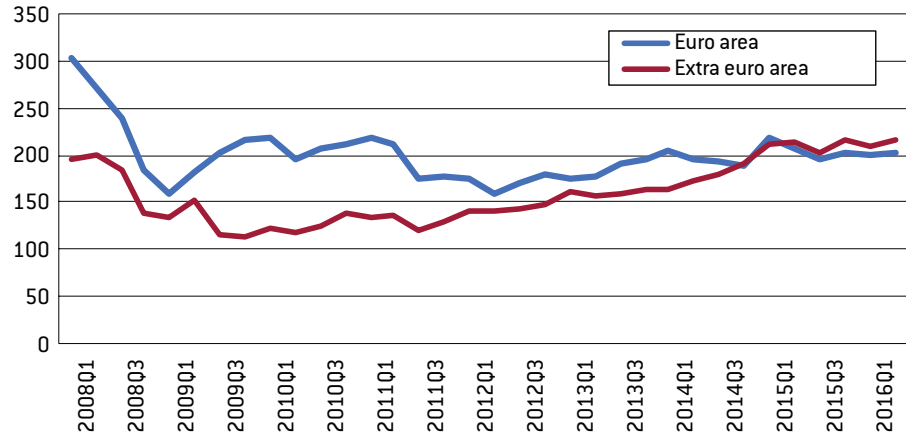
Figure 9: Insurance company assets by asset class, % of the total



Source: Bruegel based on ECB and National Association of Insurance Commissioners.

Figure 10 shows value of quoted shares by counterpart location (total equity is not available) held by euro-area pension funds and insurance companies, showing many are extra-euro area.

Figure 10: Euro-area insurance company and pension fund assets: quoted shares and other securities by counterpart location, € billions

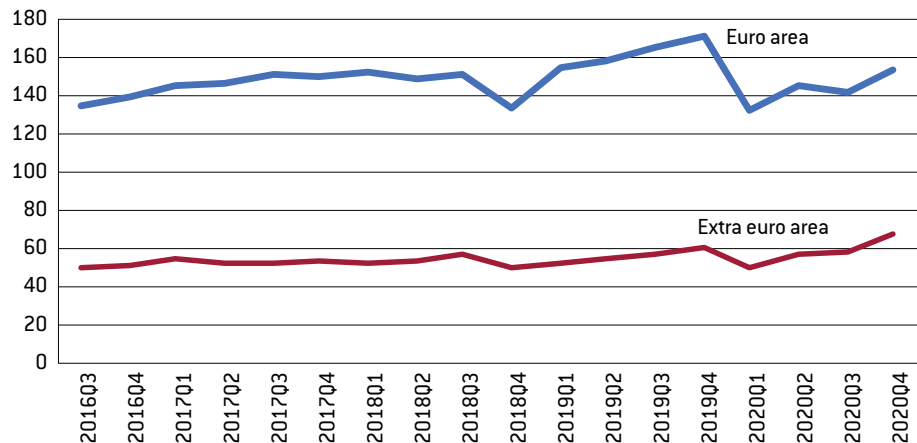


Source: Bruegel based on ECB Statistical Data Warehouse. Note: An important caveat is that this series was discontinued, with the latest data being from the second quarter of 2016. After that point pension fund and insurance company data was respectively separated into two different series. While a similar graph with exclusively insurance company data is exhibited for the later period (2016-20) no data on pension fund equity assets by counterpart area is available.

Figure 10 shows that between 2008 and 2016, the value of extra-euro area quoted shares increased from under 40 percent of pension funds' and insurance companies' equity portfolios in 2008 to over half in 2016. While no further breakdown is provided, it can be assumed the US is a major destination for these investments.

Figure 11 presents data for insurance companies from 2016 to 2020. From these two figures we can infer that pension funds appear to be more extra-euro area focused, which may be explained by the disproportionately large share of assets attributed to Dutch pension funds.

Figure 11: Euro-area insurance company assets: listed shares and debt securities by counterpart area, € billions



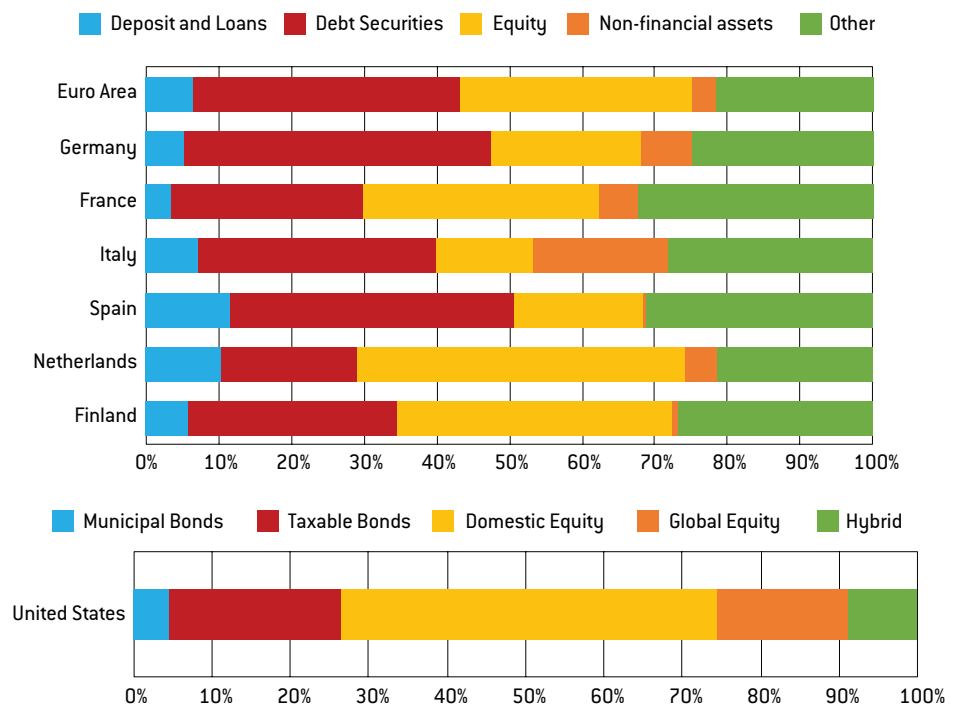
Source: Bruegel based on ECB Statistical Data Warehouse.

4.2 Investment funds

Finally, investment funds' assets in the euro area have grown significantly, from about €5 trillion in 2009 to around €15 trillion by the end of 2020 (higher than the value of pension fund and insurance company assets combined). However, a degree of caution is needed because a large share of these assets is concentrated in countries where the fiscal environment is attractive to special purpose vehicles (SPEs), used to channel investments. For context, the combined value for Germany, France, Italy and Spain is only €5 trillion. In the US, mutual funds hold approximately \$18 trillion in assets.

Once again, euro-area funds exhibit a greater skew towards fixed-income products, with only around 30 percent of investments in equity products. The value for the US is about 65 percent.

Figure 12: Investment fund assets by asset class, % of the total

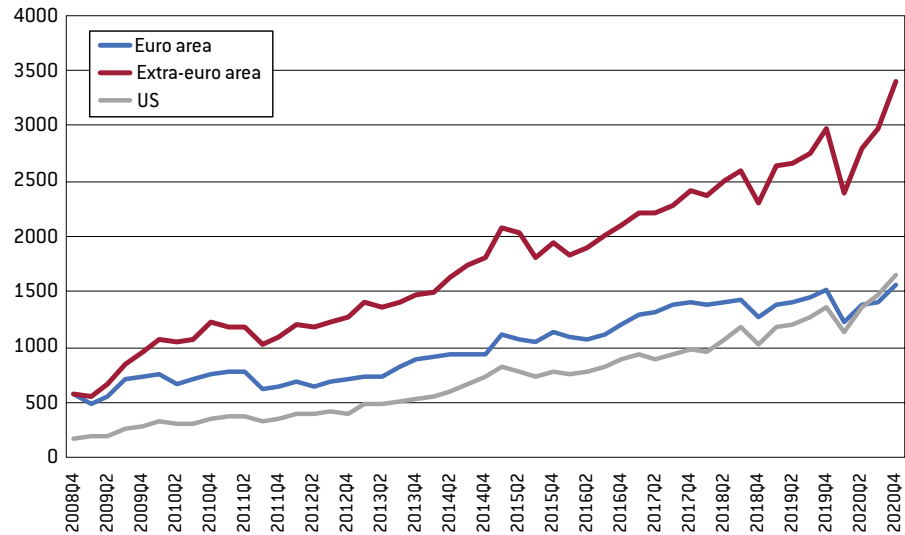


Source: Bruegel based on ECB and St. Louis Fed. Notes: US data for mutual funds only.

Even more importantly, the majority of US mutual funds are invested in domestic equities, with around \$8.5 trillion of assets in domestic equity products (or 50 percent of the portfolio). Global equity assets are more modest, under \$3 trillion or around 15 percent of the portfolio.

In the EU, the external skew is greater for equities, and has grown since the financial crisis. That said, investment in euro-area equities remains very significant, at €1.6 trillion, though this is still lower than investment in US equities (€1.7 trillion), which make-up half of the extra euro-area total.

Figure 13: Euro-area investment fund assets: shares and other equity by counterpart area, € billions



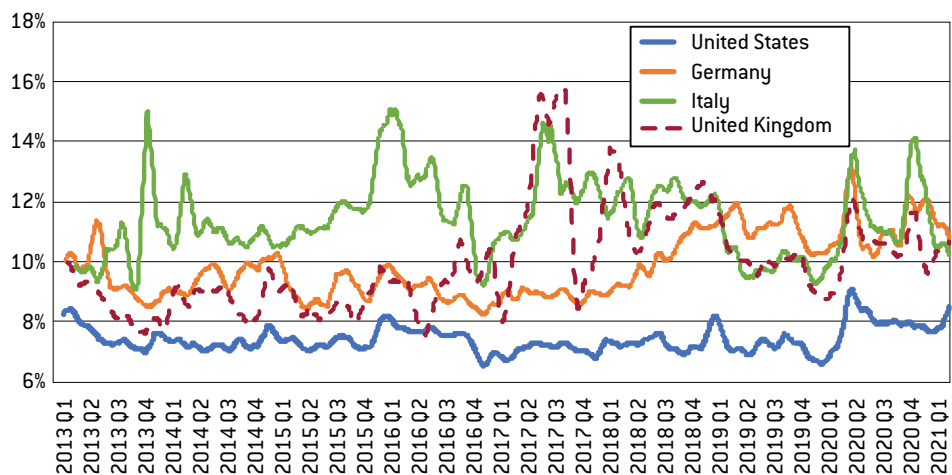
Source: Bruegel based on ECB Statistical Data Warehouse.

4.3 Country risk premium

A final point concerns country risk premiums – the additional risk faced by investors in equity markets relative to those that purchase safe assets. Figure 14 shows the index values for selected countries. The differential between the risk-free rate and return on equities, which represents the premium from investing in the stock market, is consistently higher in EU countries than it is in the US. For the past two years it has been around 4 percentage points higher (although this has dropped in the last few months).

That the EU is a riskier place to invest than the US could partly explain the more limited supply of equity capital. In effect, only entities with high rates of return will obtain financing in this environment, given the much higher threshold return for access to equity financing compared to the US and other jurisdictions.

Figure 14: Country risk premium



Sources: Bruegel based on Bloomberg. Notes: Country risk premium is the additional risk associated with investing in an international company, calculated by: market return minus the risk-free rate, where the market return is the internal rate of return weighted by the market cap of each index member (forward-looking estimate of market return), and the risk-free rate is the yield on a local 10y treasury security (monthly moving averages).

5 Regulatory landscape and obstacles

Since the 1980s, there has been a gradual institutional push for greater integration of capital markets within the EU. The most recent development was the September 2020 European Commission Action Plan on CMU. However, EU capital markets remain comparatively under-developed and fragmented. Here, we summarise the regulatory changes adopted and the remaining limitations to CMU.

The integration of Europe's capital markets began in essence with the development of the single market in the 1980s, which included the liberalisation of capital flows and the creation of passporting rights for financial services. Later, the de Larosière Report (2009) led to the creation of the European supervisory authorities (ESAs) and a vision of a single rulebook.

5.1 Two fields of regulation: European venture capital funds (EuVECA) and undertakings for collective investment in transferable securities (UCITS)

Regulation of mutual funds and venture capital funds is one of the main ways in which the EU has tried to advance integration of its capital markets. While the UCITS framework has promoted the development of mutual funds, the EuVECA framework began sluggishly, leading to an extensive overhaul of the system in 2018.

UCITS is a regulatory framework introduced in the European Union in 1985 to simplify the management and sale of mutual funds in Europe, while also facilitating the distribution of a fund created in one member country into other countries. The UCITS Directive (consolidated as 2009/65/EC) created the concept of a 'passport' for funds. Despite early obstacles because of local rules and restrictive investment possibilities, the framework has come to be seen as a gold standard for mutual fund regulation. Amendments (in 2001, 2009 and 2016) progressively expanded the types of authorised investments and facilitated cross-border activities by, for instance, enabling funds to be managed by management companies authorised in different EU countries.

One of the main strengths of the UCITS framework is the level of investor protection guaranteed across borders. In addition to regulations regarding investment assets, UCITS guarantees this level of investor protection thanks to its depositaries, entities in charge of overseeing certain fund transactions, verifying that transactions comply with applicable laws. Importantly, the depositary is independent from the UCITS fund and the UCITS fund manager, but nevertheless holds the fund's assets, thereby protecting investors in case of default by the manager. According to the European Fund and Asset Management Association, the total assets under management by UCITS funds was €11.7 trillion (EFAMA, 2020), more than 60 percent of the entire European fund market.

That said, the popularity of the UCITS framework does not necessarily guarantee cross-border investment activities. According to the European Parliament³, only 37 percent of UCITS are registered for distribution in more than three EU countries.

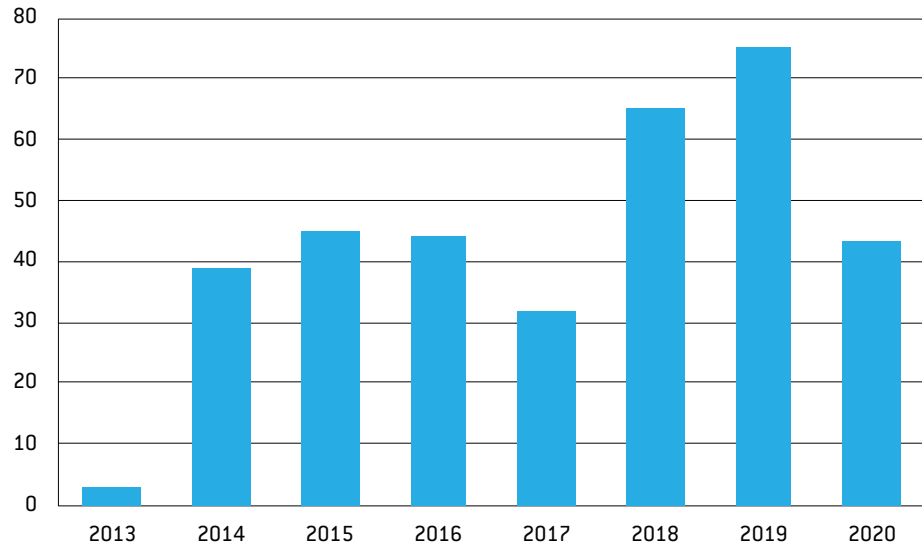
In contrast, European regulation of venture capital investments has been much more widely criticised and is considered unsuccessful. Under the EuVECA label, EU regulations similarly attempted to provide venture capital funds willing to invest in small and medium-sized enterprises (SMEs) with passports permitting them to market their funds to investors across the EU. But despite this framework, only 25 percent of European venture capital fundraising in 2013-2015 was cross-border (with investors in countries other than that of the fund). Criticism of the EuVECA framework has been wide-ranging, and resulted in an overhaul of the regulation that took effect on 1 March 2018. The employment threshold for portfolio undertakings was extended from 249 to 499, turnover limits were removed and

³ <https://www.europarl.europa.eu/legislative-train/theme-deeper-and-fairer-internal-market-with-a-strengthened-industrial-base-financial-services/file-cross-border-distribution-of-investment-funds>.

restrictions on eligibility of SMEs were eased.

The amendment of the regulation seems to have encouraged the creation of more EuVE-CAs. The number of newly registered EuVE-CAs rose sharply in 2018, and remained high in 2019 (Figure 15).

Figure 15: Newly registered EuVE-CAs



Source: Bruegel based on ESMA.

The UCITS and EuVECA frameworks illustrate both the potential and the challenges linked to capital market integration in Europe. Navigating fragmented legal environments is complicated for investors, explaining why the success of UCITS relied heavily on guaranteeing a high level of investor protection across Europe.

5.2 The CMU initiative

The CMU initiative began in 2014, with a European Commission green paper and an action plan in 2015. The Juncker Commission proposed 13 laws on CMU, not all of which were adopted, as well as proposals on central counterparties and market infrastructure, and took other non-legislative decisions to advance the development of integrated capital markets (for an exhaustive list, see Sapir *et al.*, 2018). In September 2020, the Commission published a new CMU action plan with 16 legislative and non-legislative measures. Beyond integration into a genuine single market for capital, other primary objectives include supporting a green and inclusive recovery and making the EU a safer place to invest long-term.

The sixteen initiatives contain some important measures. Most significantly, the Commission will work towards an enhanced single rulebook for capital markets, assessing the need for further harmonisation and monitoring progress towards supervisory convergence. They consider proposing measures for stronger supervisory coordination or direct supervision by the European Supervisory Authorities⁴. They also plan legislative or non-legislative initiatives

⁴ Action 16: The Commission will work towards an enhanced single rulebook for capital markets by assessing the need for further harmonisation of EU rules and monitoring progress towards supervisory convergence. It will take stock of what has been achieved in Q4 2021 and consider proposing measures for stronger supervisory coordination or direct supervision by the European Supervisory Authorities. The Commission will also carefully assess the implications of the Wirecard case for the regulation and supervision of EU capital markets and act to address any shortcomings identified in the EU legal framework.

for minimum harmonisation/convergence of non-bank insolvency law⁵. Other interesting proposals include the review of the securitisation framework,⁶ the improvement of financial education⁷ and efforts to facilitate long-term equity investments by investment funds⁸ and insurance companies.

However, much of the language is vague, and many of the legislative proposals that are ultimately introduced may not be approved by the European Parliament and Council of the EU. While harmonisation of financial regulation has improved considerably since the introduction of the euro, the integration of supervision remains largely confined to the banking sector while the European Securities and Markets Authority (ESMA) plays a small role in market supervision and convergence has been limited (indeed, in many ways, ESMA does not function as a supervisory authority). The wider infrastructure that affects capital markets (such as insolvency rules) has also seen little progress when it comes to convergence.

On this final point on associated infrastructure, a positive step was the 2019 adoption of the pan-European personal pension product proposal as a response to the demand for cross-border pension products for workers employed in several EU countries throughout their lifetimes.

Additionally, even where regulation has been harmonised, enforcement by national competent authorities may lead to divergent outcomes, though some progress has been made in this regard. A good example of how harmonising reporting requirements and, in particular, reporting standards, has contributed to eliminate differences at EU level are Regulatory Technical Standards and the Implementing Technical Standards developing the obligation to report derivative transactions to trade repositories, under article 9 of the European Market Infrastructure Regulation ((EU) No 648/2012). But it is also true that we are still far from marked consistency in regulatory practices within the EU.

Finally, the experience of banking union offers a cautionary tale. While substantial progress was made on the legislative framework in the aftermath of the financial crisis, cross-border lending remains lower than in the pre-crisis period. Schmitz and Tirpák (2017) even referred to this as the “*great retrenchment*” (on the drop in cross-border banking, see also Allen *et al*, 2011; Colangelo and Lenza, 2012; Emter *et al* 2019). Cross-border banking M&A has also declined since 2008 (Wolff and Goncalves Raposo, 2017).

6 Discussion and avenues for improvement

Numerous initiatives have sought, unsuccessfully, to deepen European capital markets. The following proposals would help to reduce the obstacles to CMU, and the first two should also be politically feasible.

First, the role of the European Securities and Markets Authority should be extended. A

- 5 Action 11: To make the outcomes of insolvency proceedings more predictable, the Commission will take a legislative or non-legislative initiative for minimum harmonisation or increased convergence in targeted areas of non-bank insolvency law. In addition, together with the European Banking Authority, the Commission will explore possibilities to enhance data reporting in order to allow for a regular assessment of the effectiveness of national loan enforcement regimes.
- 6 Action 6: In order to scale-up the securitisation market in the EU, the Commission will review the current regulatory framework for securitisation to enhance banks' credit provision to EU companies, in particular SMEs.
- 7 Action 7: The Commission will conduct a feasibility assessment for the development of a European financial competence framework. It will also assess the possibility of introducing a requirement for Member States to promote learning measures supporting financial education, in particular in relation to responsible and long-term investing.
- 8 Action 3: The Commission will review the legislative framework for European long-term investment funds with a view to channelling more long-term financing to companies and infrastructure projects, in particular those contributing to the objective of smart, sustainable and inclusive growth.

strong centralised authority would result in a major push towards regulatory harmonisation, facilitating trust in cross-border capital markets and, as such, increasing their integration. Providing ESMA with a genuine role in direct supervision would further avoid diverging outcomes that result from varying implementation by national competent authorities. This would facilitate the implementation of CMU-related measures and allow for the appropriate cross-border supervision of integrated capital markets (this is relevant to their long-term success). The establishment of the Single Supervisory Mechanism as a financial supervisor with substantial responsibility has been given as an example of why properly strengthening ESMA should be a feasible step (Sapir *et al*, 2018). The fact that the Commission, in Action 16 of the September 2020 CMU action plan, may even consider “*direct supervision by the European Supervisory Authorities*” is an encouraging sign, but the Commission makes no firm commitment and even outright Commission support does not guarantee legislative approval.

Second, measures should be introduced to facilitate investment in equities by large institutional investors. Many large investors are, because of their mandates, heavily focused on fixed income, especially in countries like Germany. This has been problematic in the past decade given ultra-low rates, which complicate the search for yield. The Commission should review the legislative framework for these different institutional investors and remove obstacles to investment in equities, with a view to promoting more equities-focused portfolios. Financial education of the population should increase openness to these portfolios. The Commission has pledged to examine some of these aspects, particularly for investment funds and insurance companies.

Finally, a substantial harmonisation of corporate insolvency laws is required, as well as a greater degree of convergence in their application. Currently, varying insolvency rules lead to a degree of uncertainty and are thus an additional source of risk for cross-border operations, limiting their prevalence. The Juncker Commission already introduced a proposal in this regard, and the new CMU action plan discusses the need for “*minimum harmonisation or increased convergence in targeted areas of non-bank insolvency law*”. This is positive if not very ambitious.

References

- Abele C., A. Benassy-Quéré and L. Fontagné (2020) ‘One Size Does Not Fit All: TFP in the Aftermath of Financial Crises in Three European Countries’, *Deliverable 6.6*, MICROPROD Project
- Allen, F., T. Beck, E. Carletti, P.R. Lane, D. Schoenmaker and W. Wagner (2011) *Cross-border banking in Europe: implications for financial stability and macroeconomic policies*, Centre for Economic Policy Research
- Allen, F. and D. Gale (2000) *Comparing financial systems*, MIT Press
- Beck, T., R. Doting, T. Lambert and M. van Dijk (2020) ‘Liquidity creation, investment, and growth’, *CEPR Discussion Paper 14956*, Centre for Economic Policy Research
- Bernanke, B.S., M. Gertler and S. Gilchrist (1999) ‘The financial accelerator in a quantitative business cycle framework’, *Handbook of Macroeconomics 1*: 1341-1393
- Brynjolfsson, E., A. McAfee and M. Spence (2014) ‘New world order: labor, capital, and ideas in the power law economy’, *Foreign Affairs*, 93(4): 44-53
- Colangelo, A. and M. Lenza (2012) ‘Cross-border banking transactions in the euro area’, *IFC Bulletin 36*: 518-531

- Corrado, C., J. Haskel, C. Jona-Lasinio and M. Iommi (2016) 'Intangible investment in the EU and US before and since the Great Recession and its contribution to productivity growth', *EIB Working Papers* 2016/08, European Investment Bank
- De Haas, R. and A.A. Popov (2019) 'Finance and carbon emissions', *Working Paper Series No* 2318, European Central Bank, available at <https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2318~44719344e8.en.pdf>
- De Larosière, J., L. Balcerowicz, O. Issing, R. Masera, C. McCarthy, L. Nyberg, J. Pérez and O. Ruding (2009) *Report of the high-level group on financial supervision in the EU*, available at https://ec.europa.eu/economy_finance/publications/pages/publication14527_en.pdf
- Durufflé, G., T.F. Hellmann and K. Wilson (2017) 'From start-up to scale-up: examining public policies for the financing of high-growth ventures', *Working Paper* 04/2017, Bruegel
- ECB (2017) *Financial integration in Europe*, European Central Bank
- EFAMA (2020) *EFAMA Fact Book 2020*, European Fund and Asset Management Association
- Emter, L., M. Schmitz and M. Tírpák (2019) 'Cross-border banking in the EU since the crisis: what is driving the great retrenchment?' *Review of World Economics* 155(2): 287-326
- Engel, D. and M. Keilbach (2007) 'Firm-level implications of early stage venture capital investment – An empirical investigation', *Journal of Empirical Finance* 14(2): 150-167
- Gonçalves Raposo, I. and G. Wolff (2017) 'How has banking union changed mergers and acquisitions?' *Bruegel Blog*, 13 September, available at <https://www.bruegel.org/2017/09/how-has-banking-union-changed-mergers-and-acquisitions/>
- Gambacorta, L., J. Yang and K. Tsatsaronis (2014) 'Financial structure and growth', *BIS Quarterly Review*, March, Bank for International Settlements
- Haskel, J. and S. Westlake (2017) *Capitalism without capital*, Princeton University Press
- Hsu, P.H., X. Tian and Y. Xu (2014) 'Financial development and innovation: Cross-country evidence', *Journal of Financial Economics*, 112(1): 116-135
- Langfield, S. and M. Pagano (2016), 'Bank bias in Europe: effects on systemic risk and growth', *Economic Policy*, 31(85): 51-106
- Milano, V. (2017) 'Risk sharing in the euro zone: the role of European institutions', *CeLEG Working Paper Series No.* 01/17, March
- Pagano, M., S. Langfield, V. Acharya, A. Boot, M. Brunnermeier, C. Buch, M. Hellwig, A. Sapir and I. van den Burg (2014) *Is Europe overbanked?* Reports of the Advisory Scientific Committee No. 4, European Systemic Risk Board
- Parker, G., G. Petropoulos and M. Van Alstyne (2021) 'Platform mergers and antitrust', *Working Paper* 01/2021, Bruegel
- Sapir, A., N. Véron and G.B. Wolff (2018) 'Making a reality of Europe's Capital Markets Union', *Policy Contribution* 07/2018, Bruegel
- Schmitz, M. and M. Tírpák (2017) 'Cross-Border Banking in the Euro Area since the Crisis: What is Driving the Great Retrenchment?' in *Financial Stability Review November*, European Central Bank