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Equity finance and capital market integration in Europe

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Executive summary

FACILITATING THE FINANCING of European companies through external equity is a central ambition of European Union financial regulation, including in the European Commission's capital markets union.

AGENDA. AN EMPHASIS on equity is justified because Europe's companies remain vulnerable because they hold excess debt and reliance on bank finance will make capital expenditures highly cyclical. Also, equity investors mobilise operational and corporate governance reforms within investee firms that lift firm productivity.

THE SHARE OF listed equity in the total balance sheets of EU non-financial companies has expanded, though this is limited to the core euro area, and to large companies. While net funding from listed equity issuance has declined, private equity has rapidly expanded and is back at pre-crisis levels. This is a welcome development because, compared to public equity, private equity is accessed by a wider range of smaller companies.

FIRM-LEVEL DATA SUGGESTS that the use of external equity is still relatively exceptional. The share of firms using external equity has dropped since the immediate aftermath of the financial crisis, when loan conditions tightened. Although overall financing conditions have improved, the perceived gap between needs and availability of equity financing has not narrowed.

THE UNITED KINGDOM is Europe's most advanced equity market; other EU countries are considerably less attractive to private equity investors, and there have been no improvements in key policy areas. Specifically, corporate governance practices, such as the rights of minority shareholders, remain an obstacle and underline a reluctance to dilute the control of established owners.

PRIVATE EQUITY ACTIVITY in the EU still shows a strong home bias. Fundraising from outside the private equity firm's home base, and eventual divestment outside national capital markets, have become marginally more significant, though overall remain quite limited. Government agencies still play an important role in funding, and smaller countries remain particularly constrained by local capital markets.

THE EUROPEAN REGULATION of private equity reflects post-crisis concerns about financial stability risks that are largely unjustified by the industry's business model. Fragmentation of supervision further complicates cross-border distribution of funds. The exit from the single market of the UK as the home of nearly half the European investor base poses a serious threat to equity funding in the EU. In the context of further capital markets union legislation, the EU should consider greater risk tolerance and harmonised capital requirements.

1 Introduction

The funding of European companies is characterised by a bias towards debt and against external equity. Obstacles to externally provided equity arise because of the preferential tax treatment of debt and because of barriers in corporate governance, which complicate the direct involvement of minority shareholders. There is a broader conservatism among providers of capital because households are risk averse and favour bank deposits rather than capital-market instruments, possibly because of inadequate financial literacy (European Commission, 2017a).

This realisation was one reason for the capital markets union action plan proposed by the European Commission in 2015. The first results from the action plan include the new regime for venture capital funds, a simplified prospectus regulation and the new securitisation framework (Sapir *et al*, 2018). Ongoing work by the Commission at the time of writing focuses on the rules related to listing on public equity markets and how these rules could be made more proportionate to the needs of small and medium-sized companies (SMEs).

As a period of extraordinary monetary easing in the euro area comes to an end, the facilitation of equity finance could address the balance-sheet vulnerabilities of highly leveraged firms.

The empirical literature has underlined that a protracted period of deleveraging could perpetuate low productivity growth and affect the wider corporate sector, beyond those companies that are excessively leveraged. Attracting equity into highly leveraged firms, in particular private equity, could raise firm performance, as these investors have been shown to upgrade operational efficiency and governance standards within the firms in which they invest.

Against this background, we examine the present use of external equity by EU companies[1]. In section 2 we gauge the roles of listings on public markets, which are limited to well-established and larger companies, and of private equity, which is available to a wider range of companies. Section 3 examines a firm-level dataset to detect changing perceptions of the availability and need for equity finance. In Section 4 we sketch out the regulatory impediments in national laws, and assess to what extent EU market integration has overcome the crucial obstacle of shallow local capital markets. Home bias seems to be little changed; section 5 proposes a number of steps in the next phase of the capital markets union agenda that could make this crucial financing instrument more widely accessible. Such an agenda is doubly needed in the context of the exit from the EU of the UK, which is home to nearly half of the European industry, and risks disrupting equity finance across the EU.

2 The potential of equity finance

In the immediate aftermath of the European financial crisis, credit standards applied by banks tightened considerably (ECB, 2017). Since then, the drastic reduction in European Central Bank policy interest rates and the more recent quantitative easing have of course improved funding conditions. The ECB corporate sector purchasing programme applies to bonds of highly rated companies, though lower financing costs have benefited a wider range of companies, including unrated or highly risky ones.

Recent trends

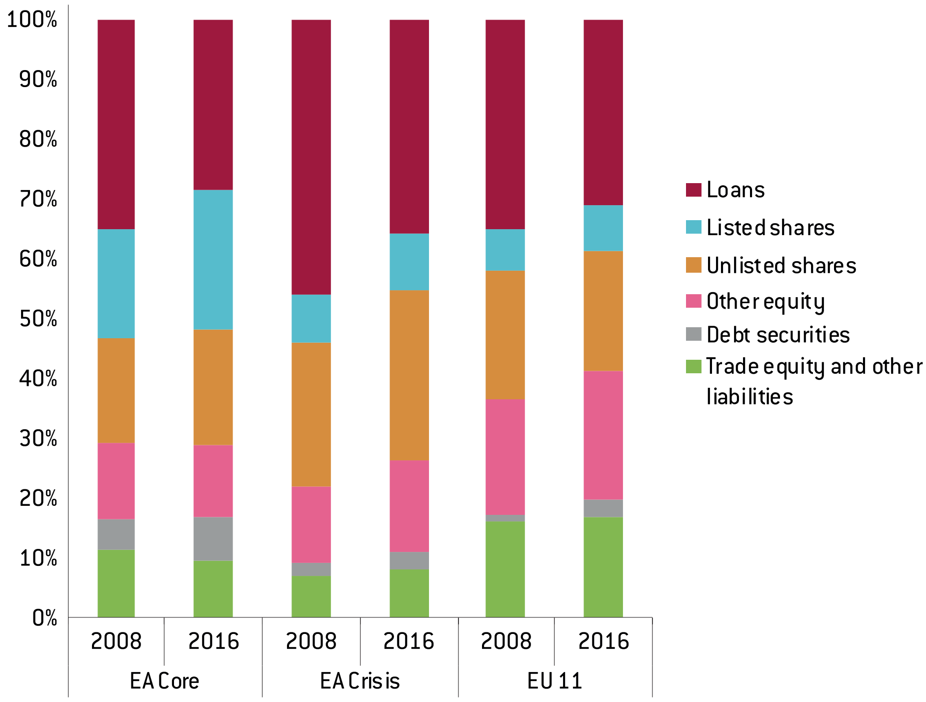
Figure 1 shows the composition of funding of EU companies and underlines that changes in financing patterns of European companies have been very uneven. We aggregate trends for three country groups: euro-area core countries (EA Core); euro-area crisis countries that have

1 External equity is understood as that provided by external investors, unrelated to the firm, ie excluding owner finance through retained earnings, and employee shareholdings.

been affected by protracted deleveraging following the financial crisis (EA Crisis); and the EU member states of central and southeast Europe where bank-dominated financial systems proved quite resilient (EU11) (see note to Figure 1 for a list of the countries in each group).

In all three groups the share of bank loans relative to aggregate balance sheets has declined. This is most clearly the case in the euro-area crisis countries. In the euro-area core this decline has been largely made up for by more significant funding from both listed and unlisted equity. A similar pattern is evident in the euro-area crisis countries, though as their corporate sectors experienced protracted credit and financing constraints, external equity is *less* significant. As the deleveraging process progressed, own equity and retained earnings became more prominent. In the EU11 countries of central and south-eastern Europe, the contraction in bank lending appears to have been more muted, and these countries show the least realignment of financing patterns.

Figure 1: Composition of corporate financing before and after the crisis



Source: Bruegel based on Eurostat. Note: EA Core is composed of Netherlands, France, Germany, Austria, Belgium, Finland and Luxembourg. EA Crisis countries include Spain, Portugal, Greece, Italy, Cyprus and Ireland. EU11 is Bulgaria, Croatia, Hungary, Czech Republic, Poland, Romania, Estonia, Slovenia, Slovakia, Lithuania and Latvia.

Looking at funding flows, the net issuance of listed equity by non-financial euro-area companies was estimated at €16.5 billion in 2017, representing a roughly 9 percent drop from the previous year[2]. Even though gross issuance has not declined significantly, in the current context of low bond yields and a high equity premium, share buybacks by established listed firms have been at a record high. Another explanation for the decline in initial public offerings (IPOs) is the reduction in the number of SMEs listing on public markets (AFME, 2017). IPOs are dominated by larger firms, and overall the share of first-time issuance remains low when compared to other markets, such as the US and UK (European Commission, 2017a).

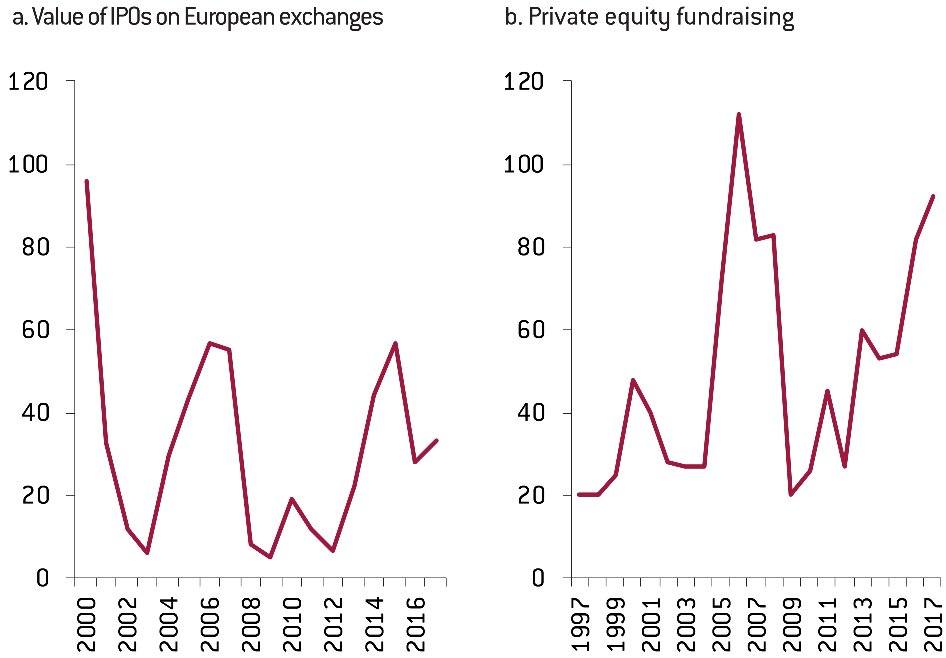
This contrasts with much greater dynamism in private equity transactions. According to industry statistics, in 2017 about €71.7 billion was invested in European companies by this

2 Data from the European Central Bank, available at https://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=130.SEC.M.I8.1100.F51100.M.4.Z01.E.Z.

sector[3]. This represented a sharp increase over the previous year, returning investment flows to just under their peak ahead of the financial crisis. Net of divestments this represented a flow of about €29.3 billion into the European corporate sector. Figure 2 contrasts the developments in the two components of equity finance.

Private equity investors have also funded a much larger number of firms, and the vast majority of the roughly 5,000 firms were SMEs. Investment flows were nevertheless quite concentrated within a small number of countries, with the UK and Ireland, France and the Benelux region representing more than half of the total investment. Of the EU11 countries, Poland, Romania and Hungary appear to be the only significant investment locations, though even in Poland, where firms attracted the greatest volume of investment among the EU11 countries, investment flows of about 0.2 percent of GDP are miniscule relative to the more developed private equity destinations in Europe.

Figure 2: Trends in public and private equity transactions (€ billions)



Source: Bruegel based on AFME (panel A), Invest Europe (panel B). Note: Panel B data relates to all of Europe and industry aggregates, ie including a small amount of non-EU portfolio companies.

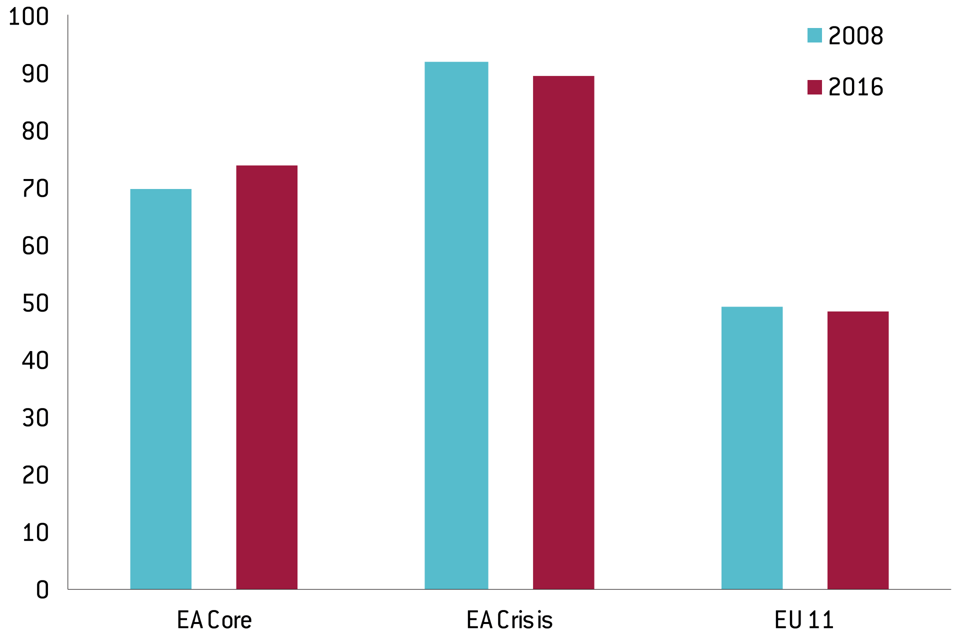
Corporate sector vulnerabilities

It is clear that these relatively limited flows of equity financing will be inadequate to make a dent in the excess corporate leverage that continues to be a legacy of the financial crisis.

As Figure 3 shows, aggregate corporate debt ratios have not markedly declined since 2008, and have in fact increased slightly in the euro-area core countries. A large number of countries with corporate debt ratios in excess of a critical ratio of 90 percent of GDP, or those which have recently witnessed increases in debt ratios, are not significant recipients of either private or listed equity (Cecchetti *et al*, 2011). There is evidence that less-leveraged firms are more resilient in times of economic downturn, and in the European financial crisis the most severely impacted economies were also those with more shallow equity bases (EIB, 2018; Langfeld and Pagano, 2016).

3 Figures from Invest Europe.

Figure 3: Corporate debt before and after the crisis, percent of GDP



Source: Bruegel based on Eurostat.

Private equity and firm performance

Given the absence of a significant equity market for smaller companies, unlisted or private equity is the most likely form of equity financing for the largest number of EU firms. A brief look at the business model of these investors underlines the ambiguous effect on debt of the involvement of private equity investors, and also the benefits in terms of firm performance. Private equity caters to three distinct types of company:

- The key targets of private equity investors are companies that are growing but are capital-constrained. These companies have a proven commercial concept and a track record. Private equity investors will acquire significant stakes and take these firms into a further growth phase, for instance by assisting in their expansion into international markets[4].
- A subset of private equity targets highly innovative companies. Venture capital remains a small though much sought-after subsector of the private equity industry. Venture capital investors have the risk appetite and have developed distinct tools to cater to firms that have technology that is yet not ready for commercial application and for which returns are highly uncertain.
- Another type of private equity fund is turnaround investors that target companies that might be stagnating but which have considerable inefficiencies that can be addressed through a programme of operational and financial restructuring. Investors might inject senior debt, in addition to equity. While such investors could be particularly suitable for the significant number of European companies with excess debt, this type of investment is as yet relatively rare.

While private equity is the principal instrument to inject equity into smaller companies, it should be acknowledged that so-called buyout investors regularly increase leverage in the companies they invest in. Overall, empirical studies confirm that private equity-backed firms are less likely to fail (Frontier Economics, 2013).

4 In private equity data this is considered buyout and accounts for up to 71.4 percent of the total PE investment in Europe in 2017 (Invest Europe, 2018).

Unlike other types of investment fund, the industry does not suffer from liquidity risks. A private equity fund collects commitments from a range of institutional and private investors. Pension funds are the main investor type. These so-called limited partners will be tied to the fund for up to ten years. This explains an unusually long investment horizon in implementing a new business plan. Venture capital is significantly funded by government agencies, especially in the less advanced EU11 countries, or where government agencies have compensated for the reduction in private-sector venture capital, as in the euro-area crisis countries.

Private equity funds are also actively engaged in the management of firms. The funds are best known for their restructuring of the operations of the companies they invest in. Value is created through a programme of cost cutting and repositioning the product and company in the marketplace. This goes hand-in-hand with reforms to the governance of the firm, as managers will be subject to more stringent performance targets. The private equity business model is therefore not suitable in cases in which poor corporate governance or other obstacles to the engagement of minority investors complicate operational and governance change.

There is now an extensive empirical literature that substantiates the positive effects of private equity on the performance of investee firms (Frontier Economics, 2013). These effects are particularly strong when private equity investors lift credit constraints, as opposed to merely focusing on operational restructuring. This was the context for the study by EBRD (2015) on the impact of private equity in emerging Europe, based on data for investee firms from over 100 funds. Based on a comparison with a peer group of companies there was clear evidence that operating revenues rose more strongly in companies that attracted private equity investment. Overall, labour productivity increased by a third more than in the control group, suggesting that additional capital expenditure raises operational efficiency.

3 The evolution of equity finance

Despite these benefits, external equity remains a marginal financing component for European companies.

EU companies' access to equity can be tracked through a regular survey conducted by the ECB and the European Commission[5]. Figure 4 shows the shares of respondents that have accessed external equity in the previous half year. It is striking that this share has dropped sharply between the immediate crisis aftermath of 2009-11 and the most recent three-year period. As would be expected, the shares of SMEs accessing equity finance have been consistently lower than those of large companies. There has been less use of external equity in the euro-area crisis countries than in core countries, and less still in EU11 countries.

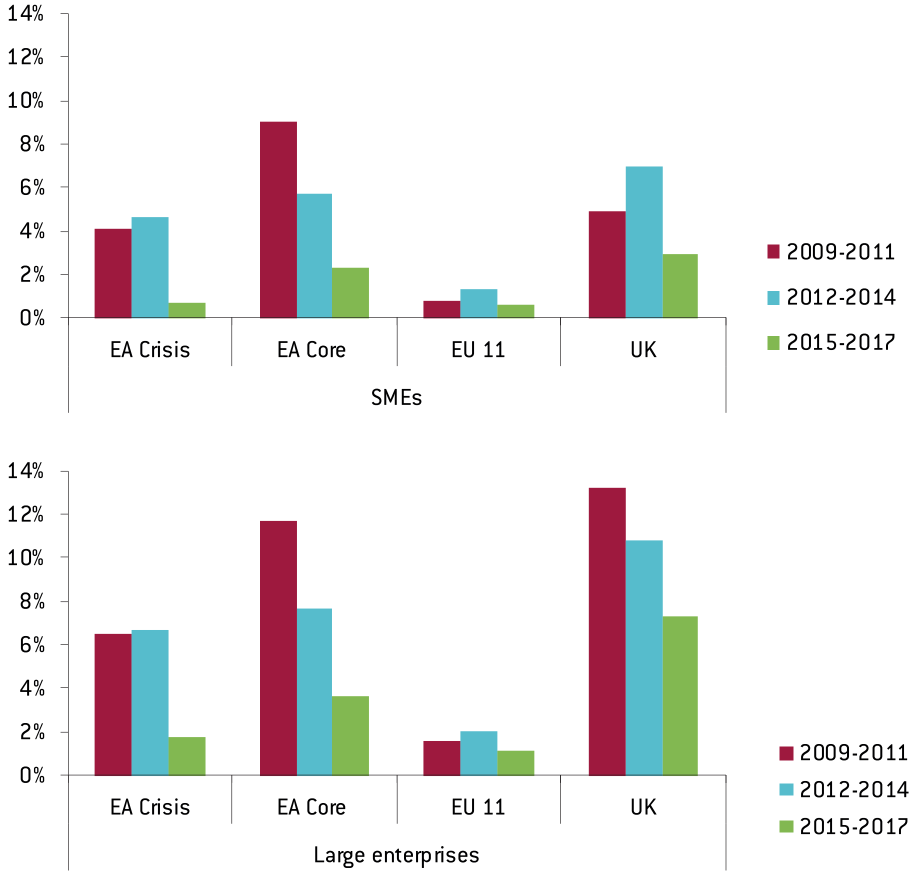
These shares are low; however, when firms are asked which type of external financing they would prefer most, a much higher proportion of respondents identifies equity than the proportion that has drawn on it.

Another way to put actual financing into context is to assess the responses of firms on perceived financing gaps. The ECB has produced a composite measure based on perceptions of changes in needs and availability of different types of financing. A large value suggests a large number of firms perceived deteriorating gaps, or simultaneously saw increased needs and reduced availability over the previous six months. Analysis by the ECB (2017) showed that

5 The ECB and European Commission Survey on the access to finance of enterprises ('SAFE survey') is the most comprehensive data source on corporate financing and perceptions of financing options. It has been run regularly since 2013. The survey covers firms of all sizes and provides data on the financing conditions and instruments used by SMEs. It assesses access to eleven different sources of financing, including issuance of equity capital. In addition, a section of the questionnaire reveals firms' responses on financing needs, and their perception of availability of different instruments.

SMEs reported easing financing conditions for the euro area as a whole, once responses for five financing instruments were averaged (Figure 5, left hand panel).

Figure 4: Share of respondents that have accessed external equity in the half year prior to the survey



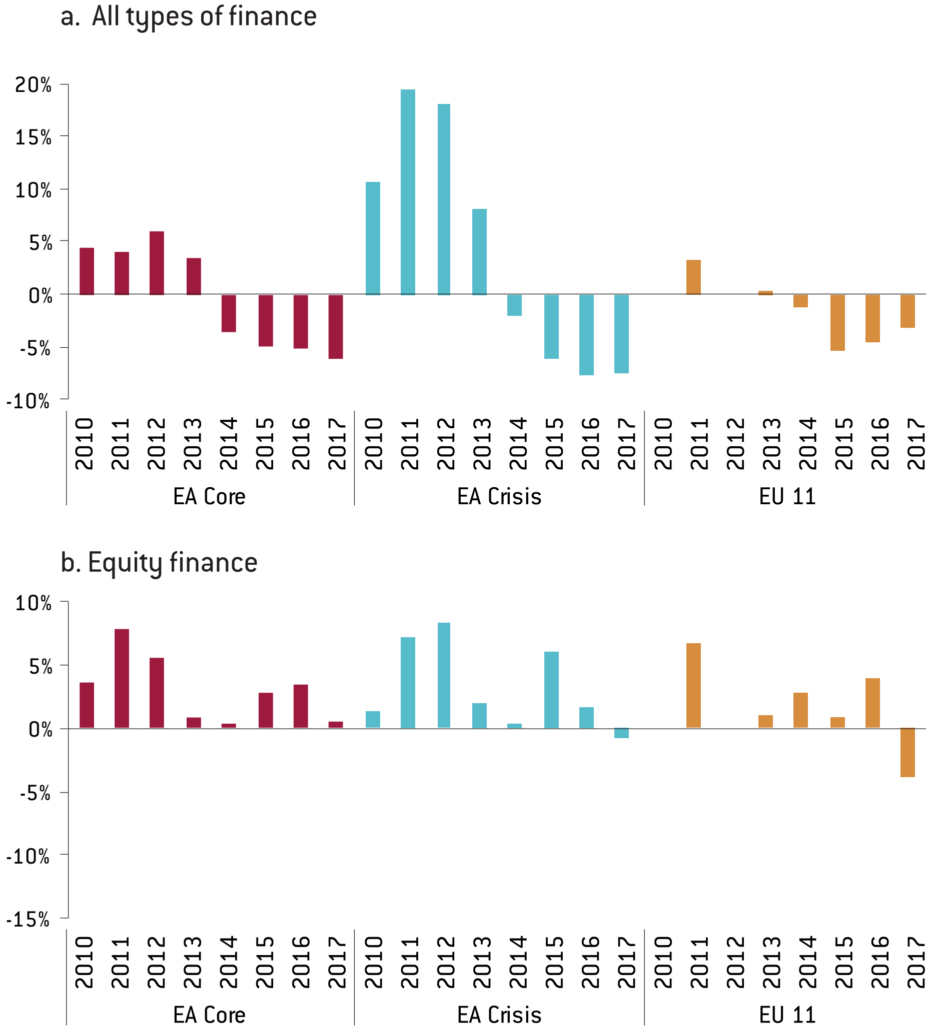
Source: Bruegel based on question Q4 of the SAFE survey *"Are the following sources of financing relevant to your enterprise, that is, have you used them in the past or considered using them in the future? If "YES", have you used this type in the past 6 months? [Equity capital]"*. Country groups represent weighted averages based on 2009 GDP.

A very different picture emerges when only the equity finance component is assessed, as is evident in the right-hand panel of Figure 5. At least among SMEs, there has been a predominant perception of *tightening* availability in all three country groups.

The limited access to equity finance might be due to the nature of European firms. In their taxonomy of SME financing patterns, Moritz *et al* (2016) identified firms that are more likely to access equity as younger, more innovative and with higher growth expectations.

But over time, the availability of equity finance should at least keep pace with that of other financing options. This data suggests that despite the need to address post-crisis excess debt, neither SMEs nor, when the full dataset is examined, large companies have reported a marked and consistent easing in equity availability relative to perceived needs.

Figure 5: SMEs' perceptions of financing gaps



Source: Bruegel based on SAFE microdata. Note: A positive value reflects that the change in financing needs exceeds the change in availability. The financing gaps are aggregated for the country groups based on GDP-weighted averages.

4 Regulatory reform and capital market integration

The relative costs of equity finance will be a function of a number of macroeconomic variables, and credit conditions (See Deutsche Bundesbank, 2018; S&P, 2018). Masiak *et al* (2017) identified as determinants the inflation rate, inflation volatility, unemployment rate, tax rates, GDP per capita and GDP growth rates. As information about SMEs is seen as more opaque than information about large enterprises, the former will be particularly penalised by banks when risk aversion rises and credit constraints spread (ECB, 2014).

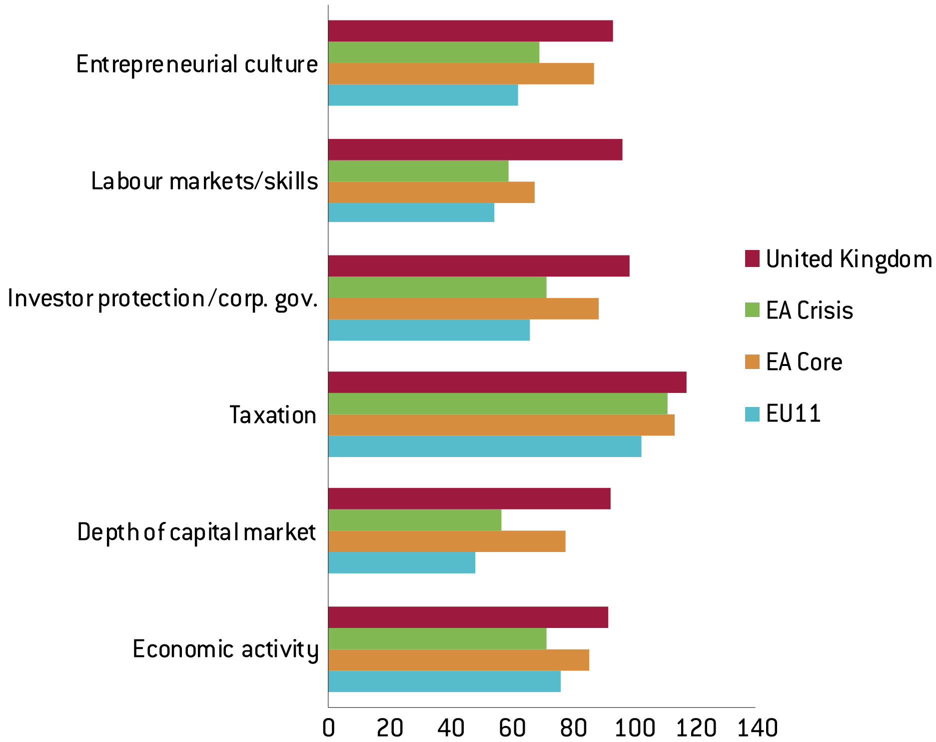
Equity finance is more influenced than loan financing by the policy framework – in particular in terms of the engagement of minority investors and their capacity to restructure companies – and by the depth and sophistication of the local capital market. There is little evidence that these national policy conditions have become more conducive.

Regulatory conditions within EU countries

Figure 6 shows the attractiveness of country groups for private equity investors in relation to a number of characteristics related to the business environment[6].

Relative to the UK as the most advanced private equity market in Europe, core euro-area countries fall short on both the depth of local capital markets and the human and social environment (largely reflecting labour-market rigidities). Inadequate corporate governance standards seem to be an additional factor. In both the euro-area crisis countries and in the EU11 the depth of local capital markets and the lack of investment opportunities seem to undermine private equity activity.

Figure 6: EU attractiveness to private equity relative to the US



Source: Bruegel based on scores from the private equity and venture capital attractiveness index (Groh *et al*, 2018). Note: Values represent a score relative to the US market at 100.

Little improvement can be detected in the attractiveness of the EU to private equity, when looking at the index in Groh *et al* (2018; see Figure 6 and footnote 7).

The index for investor protection and corporate governance, for instance, shows a slight deterioration in absolute terms, and in an international ranking, for all three groups. By contrast, the UK has retained rank 7 worldwide in this area. Labour market rigidities are relevant to equity investors where they engage in operational restructuring. Again, this component has deteriorated in all three country groups, which have not advanced in the worldwide ranking.

Together, the legal regime for investor protection and corporate governance, and labour market flexibility, account for about a third of the overall country attractiveness index developed in this index, though these are policy areas that could be addressed to provide a more conducive environment for investors.

6 Groh *et al* (2010) surveyed the literature and also constructed the country attractiveness index which since then has closely tracked actual flows and currently covers 125 countries. The latest data is available in Groh *et al* (2018).

Home bias and local capital market depth

As in other asset classes liquidity of local capital markets and access to them by non-resident investors are other key determinants of private equity activity. Local market liquidity is needed for the eventual exit from an investment; this appears to be particularly important for venture capital investment in younger firms. Bank-centric financial systems have therefore been less successful in attracting private equity. Apart from inadequate market liquidity, the lack of market infrastructure and expertise among local market participants seems to explain a lower level of equity activity (Black and Gilson, 1998).

Here too, the key country groups fall behind the benchmark set by the UK[7]. There has been little movement over the past four years in perceptions of market liquidity, with the exception of the euro-area crisis countries, where market activity seems to have revived. But policy aimed at the development of national capital markets as a source of both private and listed equity finance might be misdirected where individual markets integrate, as will ultimately be the case within the EU capital markets union.

However, the integration of national private equity markets within the EU appears to be quite limited so far. European private equity firms remain overwhelmingly dependent on funding from investors within their home countries. The share of funding attracted from European investors outside the home has marginally increased since the immediate aftermath of the financial crisis, though overall this share barely exceeds one fifth (Table 1a)[8]. The increase in the share of European funding is most evident in the euro-area core countries, and the share is highest in the EU countries of central and south-eastern Europe, which of course have very limited domestic investor bases. A key exception to equity market fragmentation is the UK, which accounts for about one third of private equity investments in the EU27.

In terms of exiting from investments, Table 1b shows that private equity funds continue to depend largely on national investors within their home bases as ultimate owners of assets. This will be a problem in markets with shallow pools of local institutional investors, as in the central and south-eastern European EU countries. The share of assets divested outside the home base is low at about 17 percent for the three country groups in aggregate, and increased only marginally in the most recent four-year period.

Table 1: Home bias in fundraising and divestment by European private equity firms

	a. Shares of total funds raised from domestic investors and EU investors outside the private equity firm's home base				b. Shares of foreign divestment in total divestment by private equity firms	
	Domestic		**EU outside the fund's home base**			
	2010-13	**2014-17**	**2010-13**	**2014-17**	**2010-13**	**2014-17**
Average of three groups	56.6	56.8	16.2	20.4	15.5	17.2
EA Core	59.7	59.9	17.6	19.7	17.0	19.2
EA Crisis	47.2	39.7	5.0	22.0	8.2	10.0
EU-11	10.9	26.5	49.7	43.0	30.0	18.2

Source: Invest Europe. Note: Table 1b is constructed as 'foreign divestments by local private equity firms' over total divestments (no data for European divestments are available).

7 The index in Groh *et al* (2010) is based on equity market capitalisation and issuing activity, as well as credit markets and infrastructure indicators.

8 According to Invest Europe, in larger funds above €1 billion, domestic investors are less significant and non-EU investors play a more dominant role, accounting for almost two thirds of fund raising.

As in other asset classes, a strong home bias can be observed in EU private equity activity[9]. It is not surprising that the fund managers who exercise control seek to invest in firms in close proximity. However, fund raising by private equity funds could benefit from a much larger pool of institutional investors from across Europe, and national capital markets need not limit the ultimate divestments nor discourage exposures. The figures in Table 1 underline that to date there has been very little progress in overcoming the limitations of national capital markets and investor pools.

Regulation in the capital markets union

Private equity has always been controversial in the public discussion on appropriate capital market regulation. The financial crisis disrupted a rapid rise of the industry and the regulatory discussion therefore assumed there were similar liquidity risks as in the hedge fund industry. This seems to be reflected in the treatment of the industry in the Alternative Investment Fund Managers Directive of 2011 (the AIFMD).

Two concerns typically underpin regulation of the private equity industry. The first is transparency and disclosure, which are of course inferior to that provided by publicly-listed companies. Private equity funds are solely aimed at institutional investors or wealthy individuals who will receive extensive information and require more limited protection. The key issue therefore seems to be other stakeholders, in particular employees, and how they are impacted by operational restructuring under private equity ownership. The second concern is the systemic risk that can arise from maturity mismatches and leverage. Again, this applies less to private equity than to other investors, given private equity's typically long-term funding commitments, and given that limited partners are unable to redeem their investment early. Leverage created in individual transactions (not at the level of the fund company) is indeed a concern, even though linkages and correlations between investee companies are likely quite low (Payne, 2011).

The AIFMD nevertheless puts in place a fairly onerous regime of capital coverage and limits on distributions to the fund company. Only investment in SMEs benefits from certain exemptions (Moloney, 2014). A key problem seems to be that fund managers need to appoint a depositary in each jurisdiction. In a so-called investment triangle with investors and the fund manager, the depositary has the roles of custodian and monitor of the fund manager.

The depositary, not the manager, acts as a reporting counterpart to local supervisors. Fragmentation in supervision of the industry and inadequate powers of the European Securities and Markets Authority (ESMA) as the EU capital markets supervisor therefore result in costly and complex duplication of services and reporting across member states. A proposal by the Commission from early 2018 that is designed to ease the cross-border distribution of collective investment funds is still seen as inadequate by the industry (European Commission, 2018).

Brexit could further aggravate the fragmentation of the EU private equity market. The UK is home to about a fifth of Europe's private equity firms, and accounts for nearly half of the assets under management, which are collected from across the EU. The UK industry seems to play a crucial intermediary function in investments across the EU. The likely loss of UK firms' passporting rights within the single market at the end of the transition period could prove highly disruptive to fund allocations by European institutional investors and therefore to equity funding of European companies. A 'third country passport' regime, should therefore be developed speedily.

9 A financial integration index compiled by the ECB shows similar values and trends. Equity funds and other equity issued in the euro area but outside the investor's home country rose from 17 to 21 percent of average national holdings in the last ten years: https://www.ecb.europa.eu/stats/financial_markets_and_interest_rates/financial_integration/html/index.en.html.

5 Conclusions

External equity finance is rapidly shifting from public markets to private transactions. This is explained by the extraordinary monetary easing in the EU that has reduced the costs of debt finance, leading large companies to retire a growing share of listed equity. By contrast, smaller companies that are growing or have promising prospects, increasingly seek funding outside public markets through private equity transactions. As these investors initiate governance and operational improvements over the course of a long-term engagement in the companies they invest in, private equity is a highly desirable funding instrument in terms of reviving tepid productivity growth and redressing excess leverage. Nevertheless, major obstacles remain, including the favourable treatment of debt under national tax regimes and the resistance of many entrepreneurs against dilution of their ownership rights

The growing significance of private equity transactions clearly raises questions of whether the EU regulatory agenda is still well aligned with market developments. Surprisingly, we found no evidence that the overall improvement in financing conditions in the euro area has been reflected in equity finance. Moreover, national policies have not really facilitated the engagement of equity investors. In most EU countries, broad indicators of corporate governance or investor protection do not show improvements. EU countries have fallen back in an international ranking.

Lack of liquidity and expertise in national capital markets also explain the very limited cross-border integration of equity finance. Fund managers will always seek proximity to their investees and that is the essence of this investor class. But cross-border fundraising by private equity firms could be much greater. Facilitating the integration of equity investment should be a clear focus of the next phase of the EU capital markets union agenda. This will be a particular challenge as the UK, which is home to nearly half of the European private equity industry, is set to exit the single market and could develop a separate regulatory regime.

References

AFME (2017) *The shortage of risk capital for Europe's high growth businesses*, Association for Financial Markets in Europe, available at https://www.afme.eu/globalassets/downloads/publications/afme-highgrowth-2017.pdf

Black, B. and R. Gilson (1998) 'Venture capital and the structure of capital markets: banks versus stock markets,' *Journal of Financial Economics* 47(3): 243-277

Cecchetti, S.G, M.S. Mohanty and F. Zampolli (2011) 'The real effects of debt,' *BIS Working Paper* no. 352, Bank for International Settlements

Deutsche Bundesbank (2018) 'Developments in corporate financing in the euro area since the financial and economic crisis,' *Monthly Report* 70(1): 53-72

EBRD (2015) 'Trends and Value Creation in Private Equity,' chapter 3 of the *Transaction Report 2015-2016*, European Bank for Reconstruction and Development

ECB (2014) *Financial Integration in Europe*, April, European Central Bank

ECB (2017) *Survey on the access to finance of enterprises in the euro area*, May, European Central Bank

European Commission (2013) 'Indebtedness, deleveraging dynamics and macroeconomic adjustment,' *Economic Papers* no. 477, April

European Commission (2017a) 'European Financial Stability and Integration Review,' Staff Working Document SWD(2017) 171 final

European Commission (2017b) 'Economic analysis accompanying the communication on the mid-term review of the capital markets union action plan,' Staff Working Document SWD (2017) 224

European Commission (2018) 'Proposal for a Directive with regard to the cross-border distribution of collective investment funds,' COM (2018) 92 final

EIB (2018) *Investment Report 2018/2019: retooling Europe's economy*, European Investment Bank

Frontier Economics (2013) *Exploring the impact of private equity on economic growth in Europe*, May, available at https://www.investeurope.eu/media/12929/Frontier-Economics-Report.pdf

Groh, A., H. von Liechtenstein and K. Lieser (2010) 'The European Venture Capital and Private Equity Country Attractiveness Indices,' *Journal of Corporate Finance* 16(2): 205-224

Groh, A., H. von Liechtenstein, K. Lieser and M. Biesinger (2018) *The Venture Capital and Private Equity country attractiveness index 2018*, IESE Business School, available at https://blog.iese.edu/vcpeindex/files/2018/02/report2018.pdf

Invest Europe (2018) *2017 European Private Equity activity: Statistics on Fundraising, Investments & Divestments*, May

Langfeld, S. and M. Pagano (2016) 'Bank bias in Europe: effects on systemic risk and growth,' *Economic Policy* 31: 51-106

Masiak, C., A. Moritz and F. Lang (2017) 'Financing Patterns of European SMEs Revisited: An updated empirical taxonomy and determinant of SME Financing Clusters,' *Working Paper* 2017/40, European Investment Fund Research and Market Analysis, available at http://www.eif.org/news_centre/publications/eif_wp_40.pdf

Moloney, N. (2014) *EU Securities and Financial Markets Regulation, third edition*, Oxford University Press

Moritz, A., J. H. Block and A. Heinz (2016) 'Financing Patterns of European SMEs - an Empirical Taxonomy,' *Venture Capital* 18 (2): 115-148

Payne, J. (2011) 'Private Equity and its Regulation in Europe,' *Legal Research Paper Series* no. 40/2011, University of Oxford

Sapir, A., N. Véron and G. Wolff (2018) 'Making a reality of Europe's capital markets union,' *Policy Contribution* 7/2018, Bruegel

S&P (2018) 'Eurozone Corporates' Move to Market-Based Financing Is Here To Stay,' *Economic Research*, 18 June