The structure and integration of the European buyout industry

PETER CORNELIUS*

Peter Cornelius, AlpInvest Partners, New York, e-mail: peter.cornelius@alpinvest.com

Summary: The European private equity market has expanded meaningfully over the past few decades, with leveraged buyouts having averaged more than 50 billion euros per year in 2010–2016. This paper examines investment flows within Europe, as well as between Europe and the rest of the world at two levels: commitments from investors to private equity funds and acquisitions of portfolio companies by these funds. Although standard indicators of market integration are not available, these flows suggest that the European private equity market is significantly integrated both regionally and globally, with the United Kingdom serving as Europe's major hub. At the same time, the paper finds that financial intermediation in the European buyout industry has remained relatively fragmented, which has important implications for constructing institutional investors' portfolios.

Zusammenfassung: Der europäische Markt für Finanzbeteiligungen ist in den letzten Jahrzehnten stark expandiert. In den Jahren 2010–2016 betrug das Marktvolumen durchschnittlich mehr als 50 Milliarden Euro im Jahr. Dieser Artikel untersucht Kapitalflüsse innerhalb Europas als auch zwischen Europa und dem Rest der Welt. Dabei wird zwischen zwei Ebenen unterschieden, nämlich einerseits der Bereitstellung von Kapital an Private Equity Fonds durch institutionelle Investoren und andererseits der Verwendung von zugeflossenen Mitteln durch diese Fonds. Diese Kapitalflüsse deuten darauf hin, dass der europäische Markt für Finanzbeteiligungen ein hohes Mass an Integration aufweist, wobei dem Vereinigten Königreich eine Drehscheibenfunktion zukommt. Gleichzeitig scheint die europäische Fondsindustrie relativ fragmentiert zu sein, was erhebliche Konsequenzen für die Konstruktion von Portfeuilles haben könnte.

→ JEL Classification: F21, F36, G15, G24, G34
→ Keywords: Private equity, capital flows, portfolio investments, integration, market structure

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1 Introduction

Leveraged buyouts (LBOs) in Europe emerged in the mid-1980s when several U.S. private equity firms decided to expand globally, opening offices in London and other major European cities, thus helping to develop an indigenous industry. Today, there are almost 1,200 private equity firms with headquarters or secondary offices in Europe. Including cross-border transactions led by foreign private equity firms that do not have offices in Europe, LBO volume totalled around 375 billion euros between 2010 and 2016.[1] In these transactions, private equity firms have provided vital capital, especially for small and medium-sized enterprises (SMEs), enabling them to grow faster and create new jobs, thus contributing to Europe's economic recovery following the global financial crisis, while generating value for their stakeholders. At the same time, a growing number of European investors, including pension funds, insurance companies, endowments, foundations, and family offices, are significantly increasing their allocations to private equity as an asset class.

However, there are substantial differences across individual European countries in terms of private equity penetration. Some countries, notably the United Kingdom, are deeply penetrated and show private equity investment-to-GDP ratios that are similar to those in the United States. In contrast, companies in some other countries are receiving relatively little private equity capital. While the differing role of LBOs across Europe could point to limited market integration, there is little research on the European private equity market in the context of the European Commission's plan to establish a Capital Markets Union (CMU). Instead, the bulk of existing studies on market integration, including the European Central Bank's (ECB) annual report on 'Financial Integration in Europe (2017)', focuses on the integration of the European market for bank loans and tradable securities (bonds and public equities).

The concentration on these asset markets may be explained by their far larger size and the easier availability of indicators of integration, especially price-based ones. However, as private equity has gained significant momentum in the past few decades, it has increasingly helped to mobilize capital, provide businesses with a greater choice of funding at lower costs, and offer new opportunities for savers and investors, thus contributing to the main objectives of the CMU and, hence, warranting greater attention. Against this background, this paper aims to narrow the existing research gap by reviewing the empirical evidence of cross-border private equity flows under the CMU project. The discussion proceeds as follows: Section 2 provides a brief discussion of financial intermediation in private equity and evaluates the industry structure of the European buyout industry. Section 3 examines commitment flows from private equity investors to Europe-focused private equity funds, analyzing the extent to which such flows involve cross-border transactions within Europe and between the rest of the world and Europe. Section 4 focuses on the investment side of financial intermediation, discussing recent trends with regard to deal sizes, leverage, and geographies. In particular, it evaluates the extent to which private equity funds in individual European countries are home-biased. Lastly, Section 5 summarizes the results and draws some conclusions with regard to portfolio strategies.

1 Preqin and Dealogic (accessed May 3, 2017).

2 Financial intermediation in the European buyout industry

Private equity is capital invested in companies that are not listed on the stock exchange or in listed companies that are subsequently taken private (public-to-private transactions). Commonly, there are five distinct forms of private equity, based on the maturation of the investee company and where the investment sits in its capital structure: (i) venture capital; (ii) growth capital; (iii) LBOs; (iv) distressed and turnaround capital; and (v) mezzanine. Of these, LBOs represent by far the largest and most important market segment, accounting for around two-thirds of private equity transactions. Equity usually accounts for around 30 percent to 50 percent in an LBO, with the remainder of the acquisition financed with debt in the form of leveraged loans, high-yield bonds, and, in some cases, mezzanine (Axelson et al. 2013).

The most common way for investors to gain exposure to private equity is via a limited partnership.[2] In a limited partnership, the private equity firm serves as the general partner (GP), which raises and manages funds. Limited partners (LPs) are typically public and private pension funds, life insurance companies, sovereign wealth funds (SWFs), endowments, foundations, family offices, high net worth individuals, and funds of funds. As LPs in a fund, investors promise to provide a certain amount of capital. These capital commitments made by LPs are normally drawn down at the discretion of the GP who makes capital calls when needed for acquisitions. Private equity funds typically have a fixed life span of 7 to 10 years, with possible extension periods of one or two years. The GP usually has five to six years to invest the committed capital. Companies acquired by the fund are normally held for around four to seven years before exiting the investment and returning the capital to the investors. In addition to a management fee, GPs generally earn a share of the profits of the fund, subject to an internal hurdle (Kaplan and Strömberg 2009).

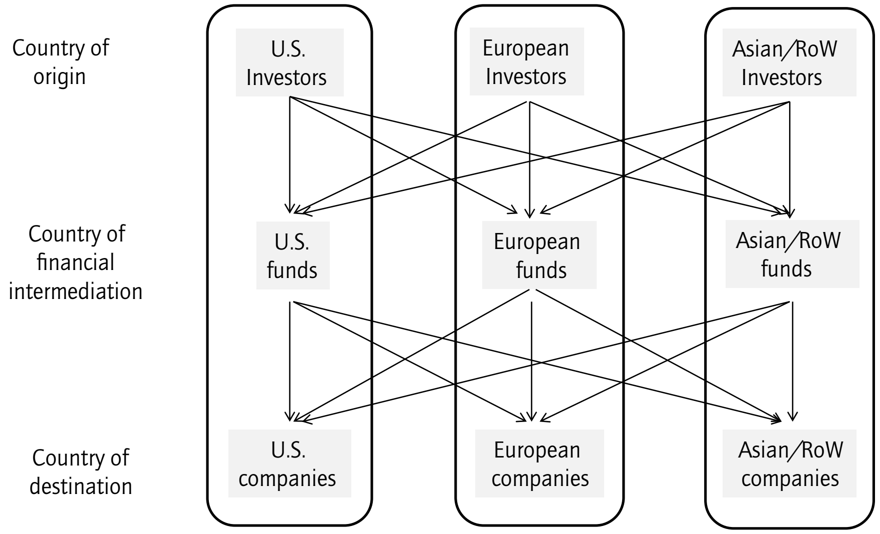
Initially, financial intermediation in private equity was largely domestic. Investors in a private equity fund were typically domiciled in the same country as the GP who raised the fund, and the capital they committed was, typically, largely or exclusively deployed to acquire assets in the GP's home country. However, as LPs sought to diversify their private equity portfolios internationally, they have committed an increasing share of their allocation to foreign GPs. At the same time, an increasing number of GPs have opened offices abroad and raised funds targeting foreign markets, thus offering their LPs additional investment opportunities. Other GPs have decided to offer their LPs increased international exposure by raising global private equity funds. Thus, LPs have a broad range of choices, which are depicted in Figure 1. For instance, an Asian SWF aiming to construct a global private equity portfolio could select regionally focused GPs in each major region. These GPs could be indigenous fund managers or foreign GPs who manage a fund in the respective regions. Alternatively, it could commit capital to a globally focused fund that deploys its capital in each region.

However, the two strategies differ in at least three fundamental ways. First, while an allocation to regionally focused funds allows the GP to control the degree of geographical diversification, an allocation to a globally operating fund essentially delegates this decision to the GP. Second,

2 There are other investment forms through which investors may gain exposure to private equity as an asset class. These include commitments to funds of private equity funds and separately managed accounts; co-investments alongside private equity funds; direct investments in portfolio companies; and purchases of stakes in private equity funds in the secondary market, either directly or through a secondary fund. Furthermore, investors may purchase stakes in the management company of listed private equity firms. For details, see Cornelius (2011) and Talmor and Vasvari (forthcoming).

Figure 1

Schematic form of global private equity flows



Source: Author.

globally operating funds tend to focus on larger transactions. In order to gain exposure to small and medium-sized companies, which typically have a different risk-return profile, an investor would have to select fund managers who are pursuing domestic or regional investment strategies. Finally, although regional integration in Europe and Asia has increased meaningfully since the 1970s, there are still significant cross-country differences with regard to growth dynamics and corporate earnings. Potentially, these differences give rise to diversification benefits at the sub-regional level. However, exploiting this potential requires sub-regional investment strategies for which global funds are not well suited. Thus, many large LPs pursue an investment strategy combining commitments to global, regional, and local funds.

As far as Europe is concerned, it is useful to distinguish two broad groups of fund managers, i.e. those headquartered in Europe and those headquartered elsewhere. As far as European GPs are concerned, their investment focus can be classified into three sub-categories:

a. GPs headquartered in Europe with global reach focusing on larger transactions;

b. GPs headquartered in Europe and operating on a pan-European basis;

c. GPs headquartered in Europe and limited in their focus to specific regions (for example, in the Benelux countries or in Scandinavia) or their home countries.

With regards to non-European headquartered GPs, it is useful to distinguish two sub-groups:

d. GPs headquartered outside of Europe with a global reach focusing on larger transactions;

e. GPs headquartered outside of Europe focusing on middle-market transactions and undertaking foreign acquisitions on an opportunistic basis.

As regards to (d), several raise specific European funds, while others pursue European transactions on the basis of their global funds, giving their LPs exposure to the European buyout market. Whether or not specific European funds are raised, buyouts undertaken by this group of GPs tend to be relatively large. In sourcing transactions, they compete primarily with globally operating GPs, although they also face competition from pan-European GPs as well as from foreign middle-market firms in lower deal size brackets.

Table 1 shows commitments to buyout funds and their average size in each category for partnerships formed between 2010 and 2016. During this period, LPs committed a total amount of almost 410 billion euros into buyout funds that focus exclusively, or primarily, on European corporate assets or undertake LBOs in Europe on an opportunistic basis. To be sure, the actual investment amount is often significantly smaller than what the fundraising numbers suggest. As far as European GPs are concerned, leakages arise to the extent that they invest outside of Europe. This applies especially to large funds managed by GPs pursuing global strategies. Conversely, while some global private equity firms raise buyout funds that are dedicated to Europe, others form global partnerships whose capital is only partially invested in European companies. Leakage effects are particularly significant for non-European GPs that opportunistically pursue middle-market transactions outside their home market.

Table 1

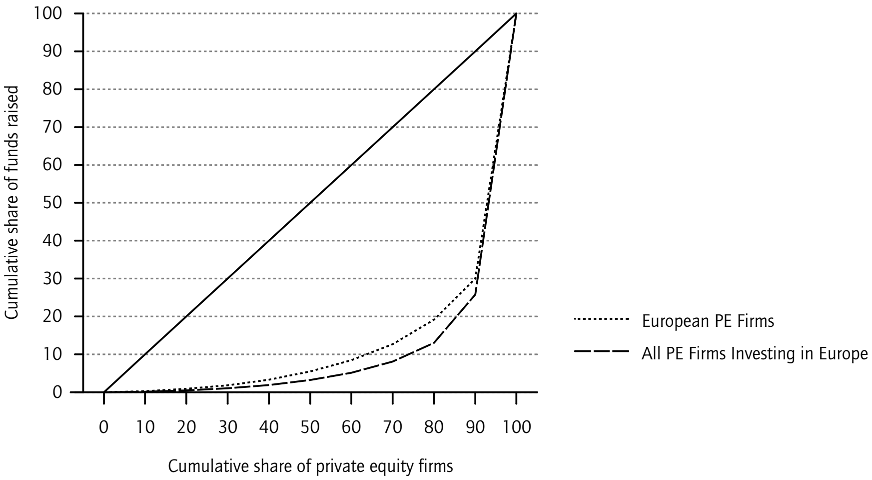
Capital raised by buyout funds investing in Europe
2010–2016

	Total Fundraising billion euro	Average Fund Size million euro
GPs headquartered in Europe		
with global reach	68.6	6,860
pan-European focus	60.5	2,243
regional/national focus	87.2	311
GPs headquartered outside of Europe		
with global reach	121.7	7,161
opportunistic middle-market deals	71.2	902

Source: Preqin (accessed May 11, 2017).

Figure 2

Concentration of assets managed by private equity firms investing in Europe



Source: Author's calculations based on data from Preqin (accessed May 5, 2017).

Given the different investment strategies of GPs operating in Europe, how concentrated is the market for financial intermediation measured by the assets under management (AUM) of these GPs?[3] One way to look at the concentration in the European buyout industry is to employ the Lorenz curve concept, which is known from research on income distribution.[4] If each firm in the sample had managed the same amount of assets, each observation would fall onto the diagonal in Figure 2. In other words, 10 percent of the firms in the sample would manage 10 percent of the total assets under management (AUM) of private equity firms investing in European buyouts, 20 percent of the firms would manage 20 percent of the total AUM, and so on. In reality, however, if all private equity firms that invest in European buyouts are included, the smallest 10 percent of GPs had a market share of just 0.1 percent. A slightly higher share (0.3 percent) is found if the sample is restricted to European GPs. Conversely, the top-10 percent of the full sample had a market share of around 74 percent, while the top-10 percent of the restricted sample still had a market share of around 70 percent.

However, these facts by themselves do not mean that the European buyout market is particularly concentrated. The five largest European buyout firms accounted for less than 28 percent of total AUM in 2016.[5] This percentage looks moderate compared with other parts of the financial services industries. For instance, a 2015 study by McKinsey found that the top five asset managers in the global exchange-traded funds (ETF) market had a market share of 76 percent in 2013. In

3 Assets under management are defined as buyout funds raised during the ten-year period from 2007 to 2016.

4 The area between the diagonal and the Lorenz curve can be calculated in a single concentration measure, the Gini coefficient.

5 Preqin database (accessed May 5, 2017).

large-cap U.S. equities and U.S. taxable fixed income, the top five managers reportedly have market shares of 60 percent and 50 percent, respectively.

Another way to look at market concentration is to use summary measures. The Herfindahl-Hirschman index (HHI) is a commonly accepted measure that is widely used in anti-trust and competition law.[6] The index approaches zero when a market is occupied by a large number of firms of relatively equal size and reaches a maximum of 10,000 points when a market is controlled by a single firm. As far as the European buyout market is concerned, the HHI has a value of 243 in terms of AUM concentration. This is far lower than what is generally considered to be a concentrated market. For instance, the U.S. Department of Justice and the Federal Trade Commission (2010) consider markets in which the HHI is between 1,500 and 2,500 to be moderately concentrated, and consider markets in which the HHI is in excess of 2,500 points to be highly concentrated. The relatively low value for the HHI index suggests that the European buyout market is actually relatively fragmented.

3 Fundraising and the sources of European private equity funds

Commitments to European private equity funds totaled 237 billion euros between 2010 and 2015. Of this amount, 27 percent and 23 percent came from domestic LPs and from foreign LPs residing in other European countries, respectively (Figure 3). The remaining capital was committed by non-European LPs or could not be classified. Combined, commitments averaged around 0.37 percent of Europe's equity market capitalization, a standard indicator for the supply-demand conditions in private equity (Kaplan and Strömberg 2009).

In order to track commitment flows at the country level, we employ a dataset compiled by Invest Europe.[7] These flow data may provide meaningful insights into the degree to which the European private equity market is integrated. However, it is important to note that this dataset is subject to some significant limitations. First, the data make no distinction between different investment stages. Thus, this analysis is restricted to private equity, and it remains an open question if commitment flows to buyout funds, the focus of the preceding section, follow the same dynamics. Furthermore, as far as cross-border fundraising within Europe is concerned, no breakdown of individual countries is given. Therefore, it is not possible to say to what extent European monetary integration might have impacted the integration process in Europe's private equity market. Finally, another limitation lies in the lack of a breakdown of commitments by domestic LPs to other European versus non-European funds. All that is known from the Invest Europe database is the total amount of LPs' commitments and the share that went into domestic funds.

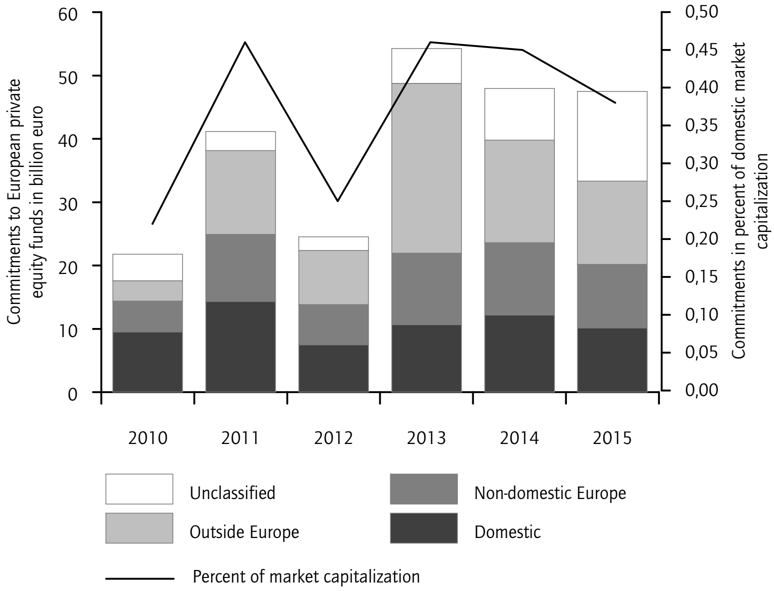
With these caveats in mind, the second column of Table 2 depicts the total amount of capital raised by GPs in individual countries. The United Kingdom is by far the most dominant market, with GPs domiciled there having raised more than 120 billion euros or 50.5 percent of all commitments made to European private equity funds between 2010 and 2015. This amount

6 The HHI is calculated by squaring the market share of each firm competing in the market and then summing up the resulting numbers. HHI = $\sum_{i=1}^{N} s_i^2$

7 Database accessed May 12, 2017.

Figure 3

Commitments to European private equity funds, by geographic source



Source: Invest Europe and Federation of World Exchanges (accessed May 25, 2017).

includes commitments to foreign GPs with subsidiaries that have raised Europe-focused private equity funds. The next two most important fundraising markets are France and Sweden, with GPs raising 38.1 billion euros and 22.6 billion euros, respectively. Collectively, GPs in these three markets manage more than three-quarters of all capital committed to Europe-focused funds.

However, the hub function of these three countries becomes clear when one looks at the amount of capital that LPs domiciled in these economies have actually committed to private equity funds managed by GPs domiciled in the same country. Collectively, British, French, and Swedish LPs have committed less than 52 billion euros to funds managed in their respective home countries (third column, Table 2), less than one-third of the amount that GPs in these countries have actually raised. This implies that the bulk of commitments must have come from LPs based in other European countries and from North America, Asia, and the rest of the world. In fact, in some European countries (e.g. Belgium, Denmark, Finland, and Luxembourg), domestic LPs made larger commitments to private equity funds than GPs domiciled in these countries actually raised. Unfortunately, there is no information where these excess commitments have flown—to funds raised in other European countries or to funds outside of Europe. However, the bottom part of Table 2 suggests that capital inflows from non-European LPs explain the largest part of the discrepancy between domestic fundraising and domestic commitments. Although there is no statistical breakdown in terms of individual European countries that have received capital commitments from foreign LPs, one can assume than UK-based GPs have benefited from inflows from abroad.

Table2

Private equity investments in Europe and their sources
2010–2015

	New funds raised by country of management	Geographic sources of funds raised	Difference
	Million euros		
Austria	742.3	566.5	176.8
Baltic Countries	373.5	178.9	194.6
Belgium	1,551.5	1,804.3	–252.7
Bulgaria	35.4	3.5	31.9
Czech Republic	219.2	70.8	148.4
Denmark	2,354.0	3,524.4	–1,170.4
Finland	2,745.2	4,416.3	–1,671.0
France	38,098.2	22,232.6	15,865.4
Germany	12,133.3	11,040.2	1,093.1
Greece	25.0	148.7	–123.7
Hungary	174.5	85.4	89.1
Ireland	447.3	1,014.8	–567.5
Italy	4,259.2	2,143.7	2,115.5
Luxembourg	2,180.3	5,450.2	–3,270.0
Netherlands	10,632.5	8,632.3	2,000.1
Norway	5,454.4	2,452.0	3,002.4
Other CEE a/	439.3	388.6	50.7
Poland	1,593.3	252.0	1,341.3
Portugal	1,312.3	1,201.2	111.1
Romania	98.4	4.3	94.1
Spain	3,614.1	1,716.5	1,877.5
Sweden	22,634.3	5,449.5	17.184.8
Switzerland	6,689.7	6,977.2	–287.5
Ukraine	37.2	55.3	–18.1
United Kingdom	120,070.4	24,268.2	95,802.2
Unclassified European		14,808.3	-14,808.3
European total	*237,914.8*	*118,905.8*	*119,009.0*
Asia & Australia		26,050.5	
Canada		7,793.0	
Israel		133.3	
United States		43,114.3	
Other Rest of the World		4,050.3	
Total rest of the world		*81,141.4*	
Unclassified		37,867.6	

a/ Ex-Yugoslavia & Slovakia.
Source: Author's calculations based on data from Invest Europe (accessed May 8, 2017).

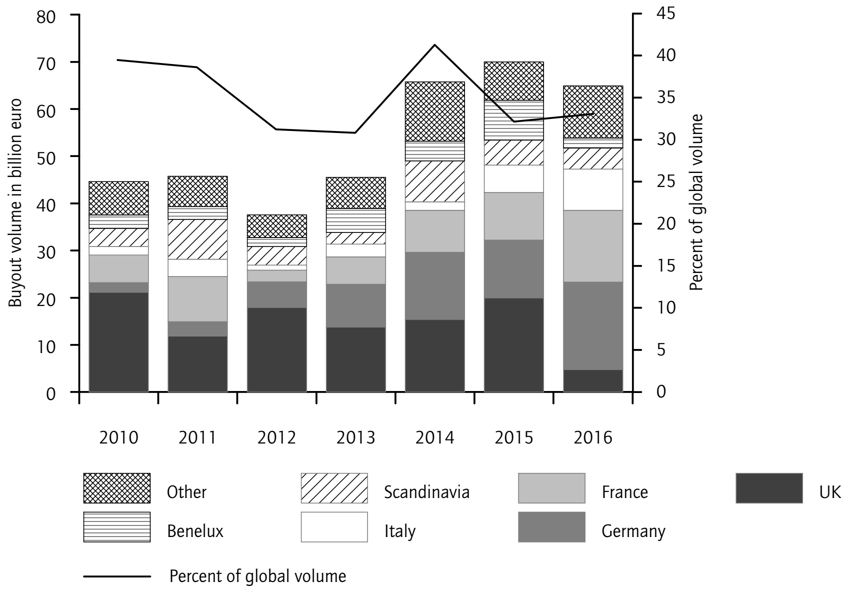
4 Leveraged buyouts in Europe and cross-border transactions

Turning to the investment side of the European Private Equity market, LBO volume totaled around 375 billion euros between 2010 and 2016, accounting for around 35 percent of global LBO volume during this period (Figure 4). Historically, the United Kingdom has been the largest market for sponsored transactions. However, its share dropped meaningfully in 2016, which may reflect to a significant degree the substantial increase in policy uncertainty associated with the unexpected outcome of the mid-year UK referendum vote to leave the European Union. Germany and France represent the second and third largest markets in Europe. However, their penetration in terms of real economic activity has remained significantly lower than in the United Kingdom. While LBOs have also played a significant role in Scandinavia, and especially in Sweden, as well as in the Benelux countries, other European economies have generally attracted less buyout capital relative to their size.

Of the 1,046 European LBOs between 2010 and 2016 for which deal values are reported, ten had a transaction value of 3 billion euros or more. Adding those with a deal value of at least 1.5 billion euros increases the sample to 41 (Figure 5). Conversely, almost 350 LBOs had a deal value of less than 50 million euros. Including those with a deal value of up to 250 million euros increases the sample of small to lower middle-market transactions to almost two-thirds of all European LBOs. However, as their deal sizes were small, they accounted for only around 15 percent of European

Figure 4

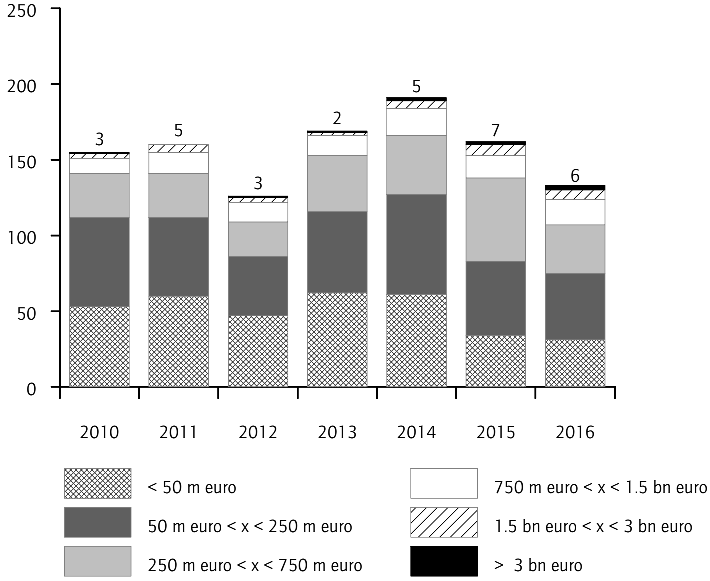
European buyout volume by countries and region



Note: Benelux = Belgium, Netherlands, and Luxembourg; Scandinavia = Denmark, Finland, Norway and Sweden.
Source: Dealogic (accessed May 3, 2017).

Figure 5

Number of European buyouts by size



Source: Dealogic (accessed May 3, 2017).

deal volume during this period (Figure 6). In comparison, large and very large transactions with deal sizes of at least 1.5 billion euros represented slightly more than 25 percent of the total volume of LBO deals.

While purchase price multiples in European LBOs increased significantly in the post-crisis period amid substantial competition among GPs as well as from strategic buyers, leverage remained relatively moderate, especially if compared with the boom period in 2006–2007. With debt multiples remaining below 5 times EBITDA, equity contributions to European buyouts climbed in recent years. On average, equity capital accounted for almost 45 percent of the financing of European LBOs between 2010 and 2016, around 12 percentage points higher than prior to the GFC. This explains, in part, why average deal sizes remained relatively small in the recent recovery.

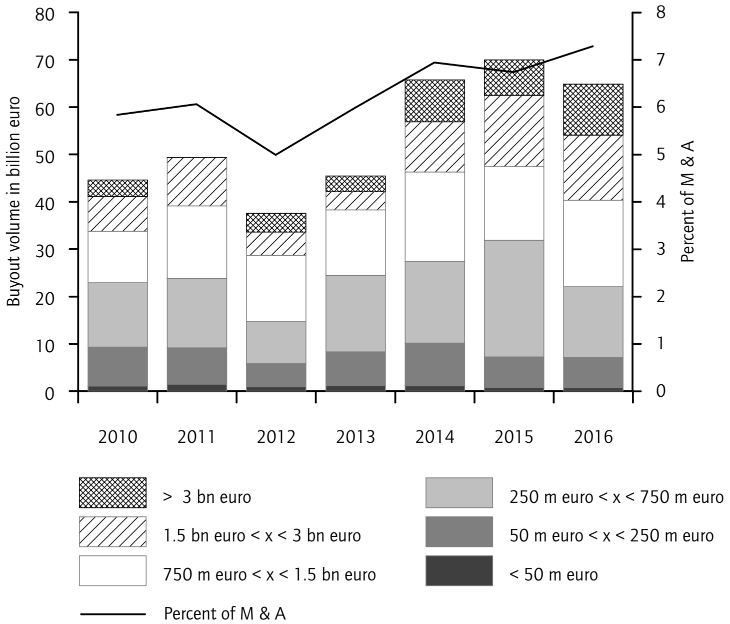
Amongst European buyouts, the overall use of leverage in these transactions masks a profound shift in the providers of debt financing. As banks are focused on de-risking their balance sheets amid more stringent bank regulation, their share has fallen to just 20 percent in the leveraged loan market.[8] Banks have been replaced by institutional investors, including pension funds and insurers, which are attracted by higher yield in the leveraged finance markets in an environment of extremely low risk-free benchmark yields. Credit funds are especially active, picking up a significant part of the slack caused by bank deleveraging; in particular they are helping to finance

8 All data are from S&P LCD (accessed May 5, 2017).

DOI https://doi.org/10.3790/vjh.86.1.111

Figure 6

European buyout volume by size



Source: Dealogic (accessed May 3, 2017).

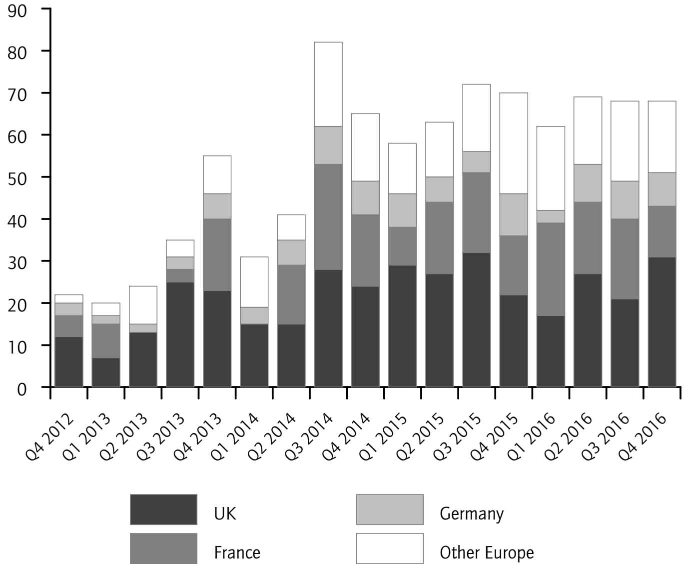
smaller and medium-sized companies. According to Deloitte, which tracks more than 50 alternative lenders in the European market whose funds are structured similarly to private equity funds, there were 905 private lending deals between the final quarter of 2012 and the final quarter of 2016 (Figure 7).[9] LPs in these funds include European as well as foreign investors, just is the case with private equity partnerships. Buyouts involving private lending transactions have, in particular, involved acquisitions of corporate assets in the United Kingdom, France, and Germany, accounting for more than 75 percent of all deals.

The geographical distribution of private lending transactions is broadly consistent with the geographical distribution of financial sponsor buyside transactions. In fact, portfolio companies in United Kingdom, France, and Germany absorbed almost 60 percent of private equity investments in Europe. Where did these funds come from—from domestic GPs, other European GPs, or non-European GPs? To what extent have acquisitions made by private equity funds involved cross-border transactions? And to what extent do these transactions resemble cross-border commitments to European private equity funds discussed in the preceding section?

9 It is important to note that not all of these transactions involved new LBOs. Instead, some transactions helped refinance existing buyouts.

Figure 7

Direct lending transactions in Europe



Source: Deloitte Alternative Lender Deal Tracker, Q4 2016.

While similar data limitations apply to the deployment side as to the fundraising side, Table 3 provides some interesting additional insights with regard to the integration of the European private equity market. Overall, European portfolio companies received around 249.1 billion euros between 2010 and 2015, the last year for which flow data are available at the time of writing. Private equity firms in Europe are reported to have invested 255.4 billion euros over this period. These firms include foreign fund managers with offices in Europe and who have raised European-dedicated funds. Of this investment amount, 6.2 percent (15.8 billion euros) was invested in portfolio companies outside of Europe. As far as investments in European portfolio companies are concerned, private equity firms deployed more than two-thirds of their total capital in their home markets, with cross-border investments within Europe accounting for around 25 percent of total investments by European private equity firms.

However, a substantial degree of variation exists with regard to the home bias of private equity firms in individual European economies.[10] For instance, private equity firms in Italy, Portugal, and Spain are reported to have deployed more than 90 percent of their capital in their home markets. These private equity firms tend to manage relatively small funds and focus on smaller

10 In this context, we define the home bias of private equity firms as the percentage of capital invested in their home markets relative to their total investments. This definition deviates from the standard deviation of home bias, which is typically calculated as 1 – (share of domestic equities in portfolio held by domestic investors/share of domestic equities in world portfolio) or as 1- (share of foreign equities in portfolio held by domestic investors/share of foreign equities in world portfolio). The home bias literature is rooted in the seminal work of French and Poterba (1991). According to the International Capital Asset Pricing Model (ICAPM), individuals should hold equities from around the world in proportion to market capitalizations.

DOI https://doi.org/10.3790/vjh.86.1.111

Table 3

Private equity investments in Europe and their sources

2010–2015

	Investment by country of private equity office				Investment by country of portfolio company
	Total amount	Domestic	Other European countries	Non-European countries	
	Million euro	Percent			Million euro
Austria	709.0	67.3	32.0	0.7	3,234,7
Baltic Countries	164.1	91.0	8.3	0.7	402.1
Belgium	3,898.7	62.5	36.1	1.4	6,772.4
Bulgaria	99.7	87.9	12.0	0.1	215.1
Czech Republic	296.5	63.5	35.6	0.9	922.9
Denmark	4,863.8	72.6	15.6	11.8	6,929.6
Finland	2,996.1	80.2	16.3	3.5	4,576.2
France	44,843.4	84.2	14.0	1.8	44,462.0
Germany	32,645.0	81.9	16.1	2.1	36,974.8
Greece	25.6	100.0	0.0	0.0	339.8
Hungary	468.4	78.2	21.6	0.2	747.3
Ireland	595.5	75.4	15.5	9.1	2,668.8
Italy	6,362.0	97.4	1.9	0.7	11,318.4
Luxembourg	802.0	9.0	72.9	18.1	1,301.4
Netherlands	9,403,5	81.7	16.0	2.3	15,245.9
Norway	5,857.0	84.3	10.2	5.5	9,384.6
Other CEE a/	199.6	97.7	2.3	0.0	930.6
Poland	3,227.9	83.5	12.9	3.6	3,239.1
Portugal	1,535.3	97.4	1.2	1.5	1,708.6
Romania	291.5	97.2	1.2	1.6	507.0
Spain	8,691.4	91.4	6.6	2.0	12,401.6
Sweden	12,217.9	67.1	26.9	6.0	12,579.7
Switzerland	5,343,8	46.9	47.7	5.4	7,533.8
Ukraine	267.1	85.5	2.6	11.9	244.2
United Kingdom	109,633.1	52.8	36.8	10.5	64,448.8
Total	*255,437.9*	*68.5*	*25.3*	*6.2*	*249,089.5*
Difference: Investments made by European private equity firms in Europe and capital received by European portfolio companies (million euro)					9,491.8
Investment inflows from Non-Europe					9,491.8
Asia & Australia					2,215.8
Canada					554.9
Israel					28.6
United States					6,639.3
Rest of the world					53.3

a/ Ex-Yugoslavia & Slovakia.
Source: Author’s calculations based on data from Invest Europe (accessed May 8, 2017).

Table 4

Share of private equity investments and foreign portfolio investment assets in Europe relative to total foreign private equity investments and portfolio investment assets

Country	Share of cross-border private equity investments in other European countries relative to all cross-border private equity investments, 2010–2015	Share of foreign portfolio investment assets in other European countries relative to all foreign portfolio investment assets, June 2016
	Percent	
Austria	98	81
Baltic Countries	92	67
Belgium	96	81
Bulgaria	99	84
Czech Republic	98	85
Denmark	57	54
Finland	82	72
France	89	76
Germany	88	76
Greece	...	82
Hungary	99	78
Italy	73	85
Luxembourg	80	53
Netherlands	87	56
Other CEE a/	100	62
Poland	78	72
Portugal	44	85
Romania	43	80
Spain	77	79
Sweden	82	56
Switzerland	90	53
Ukraine	18	58
United Kingdom	78	39

a/ Ex-Yugoslavia & Slovakia.
Source: Author's calculations based on data from Invest Europe and IMF Data Warehouse, Coordinated Portfolio Investment Survey (accessed May 8, 2017).

transactions, many of which take place on a proprietary basis. They may have access to privileged information providing them with a competitive advantage in sourcing deals. At the same time, their local knowledge may be an important asset in understanding the idiosyncracies of portfolio companies in their home markets. Conversely, their relatively small size and their limited due diligence resources typically prevent them from chasing deals abroad. To the extent that they acquire assets outside their home base, their investments are typically limited to neighboring countries.

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Larger transactions are usually intermediated by investment banks and undergo competitive auctions that frequently attract foreign GPs operating on a pan-European or even global basis. A significant number of them reside in the United Kingdom and, more specifically, in London, which explains why the United Kingdom is reported to have a significantly higher percentage of foreign investments. While investments by domestic GPs totaled almost 110 billion euros in 2010–2015, only around 57 billion euros were invested in domestic portfolio companies. This was less than what UK companies received during this period (64.4 billion euros), with the gap being filled by investment inflows from private equity funds domiciled in other European countries and outside of Europe. However, these investment inflows were substantially smaller than outflows from the United Kingdom due to acquisitions made by UK-based private equity funds in other European countries (40.3 billion euros) and in non-European economies (11.5 billion euros). These investment flows are the mirror image of the fundraising flows depicted in Table 2 in the preceding section and underline the United Kingdom's role as Europe's private equity hub. Against this background, it is not surprising that the outcome of the recent UK referendum to leave the European Union has caused much interest in the potential reshaping of the European private equity industry in light of special regulations, especially the Alternative Investment Fund Managers Directive (AIFMD).

While European private equity firms have invested in non-European economies, European portfolio companies have also received capital from private equity firms abroad. These investments totaled almost 9.5 billion euros in 2010 to 2015, closing the void between total investments in European portfolio companies by European private equity firms (239.6 billion euros) and the total amount of private equity capital received by European portfolio companies (249.1 billion euros). This implies that European private equity firms have invested more capital outside of Europe (15.8 billion euros) than European portfolio companies have received from non-European private equity firms (9.5 billion euros). However, given that private equity funds typically raise capital not only from domestic investors but also from foreign LPs, this observation is not sufficient to conclude that Europe has actually been a net exporter of private equity capital.

How can we benchmark the flows reported in Table 3? There are several attempts to track institutional investors' international portfolio flows using data from custodians such as State Street. These data are generally used to calculate the home bias of institutional investors and identify the drivers of such flows, like interest rate differentials, exchange rates, inflation, and political factors (for example, Froot, O'Connell, and Seasholes 2001; Froot and Ramadorai 2008). However, it is difficult to compare these results with the data shown in Table 3 as consistent time series for larger samples of countries do not exist. Similarly, although the International Monetary Fund (IMF) reports aggregate data on cross-border portfolio inflows in a large sample of countries, these data are not available for individual asset classes and their geographic origins. Nor do these flow data distinguish between gross outflows and inflows—all we know from this database is the net amount of portfolio investments received by individual countries.

Instead of focusing on investment flows, the IMF's Coordinated Portfolio Investment Survey (CPIS) reports portfolio asset stocks held by individual countries abroad at a given point in time. More specifically, this dataset shows the amount of assets held by country x in country y. Unfortunately, we do not know the total amount of assets held by domestic investors, which would be necessary to calculate their relative foreign exposure and the possible home bias. However, at least we are able to calculate the portfolio shares investors in individual European countries hold in other European countries as opposed to the rest of the world. This information is provided in the third column of Table 4 (as of June 2016). For instance, while we do not know from the CPIS the percentage of assets German investors have invested abroad relative to their total assets, we do know that of all foreign portfolio investments they have made, 76 percent is in other European countries. The same percentage is found with regard to French investors, while UK-based investors are reported to hold 61 percent of their foreign portfolio assets outside of Europe.

How does this compare with private equity assets? In most countries, we find higher percentages for European investments relative to all foreign private equity investments. For instance, to the extent that German GPs have deployed outside of their home market, 88 percent have invested in other European countries as opposed to the rest of the world. Similarly, French GPs have deployed just 11 percent of their foreign investments in non-Europe. In the United Kingdom, Europe's major private equity hub, the share is more than three-quarters. Overall, while we know from Table 3 that private equity is to a large extent a local business, the information from Table 4 suggests that cross-border transactions are largely confined to the European market, seemingly significantly more than other portfolio transactions.

5 Conclusions

This paper discusses private equity flows within Europe, as well as between Europe and the rest of the world, in order to gain a better understanding of the degree to which the European private equity market, and more specifically the market for leveraged buyouts, is integrated. Although investment flows are imperfect measures of market integration, they can at least be considered as a broad indication in the absence of price-based indicators that are typically used for banking services and tradable securities.

Investment flows in private equity can be observed on two sides—commitment flows from LPs to private equity funds and investment flows from these funds to portfolio companies, with the private capital intermediated by GPs. As the paper discusses, this intermediation process has substantially evolved over time, with European GPs raising capital not only from investors domiciled in their own countries, but also from LPs in other European economies and non-European countries. Likewise, a significant number of European GPs invest their capital not only in their respective home markets, but also in other European economies and outside of Europe. Tracking these fundraising and investment flows, it appears that the European private equity market is significantly integrated both regionally and globally, with the United Kingdom serving as Europe's major hub.

At the same time, however, financial intermediation has remained relatively fragmented, as evidenced by a comparatively low degree of concentration with regard to AUM. Furthermore, private equity funds differ significantly in terms of their investment focus. While large buyout funds often pursue global investment strategies and focus on relatively large assets, at the other end of the spectrum there are a significant number of small partnerships concentrating on relatively small acquisitions, often in their home markets. Pan-European funds fall in between, operating across Europe and usually targeting middle-market transactions.

The market structure of the European buyout industry has important implications for LPs' portfolio construction. To the extent that small- and mid-caps have different risk-return characteristics than large-caps and individual European economies show differing macro fundamentals, diversification benefits could arise from constructing a portfolio that includes commitments to different types of private equity partnerships. However, this requires a substantial degree of market knowledge and adequate resources to select the best managers in each market segment. These challenges are likely to help explain why the investment returns LP portfolios generate are found to vary as much as return differentials of the underlying funds themselves (Cavagnaro et al. 2016, Harris et al 2014, Harris et al. 2016).

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