



Recent Developments in European Capital Markets: Key findings from the 2018 ECMI Statistical Package

Love Gleisner and Apostolos Thomadakis

ECMI research reports offer views and insights into developments affecting capital markets in Europe. They are produced by specialists associated with the European Capital Markets Institute, which is managed and staffed by CEPS. Unless otherwise indicated, the views expressed are attributable only to the authors and not to any institution with which they are associated, and nor do they necessarily represent the views of the ECMI.

The views expressed are those of the author(s) and do not necessarily represent the position of ECMI.

Publisher and editor European Capital Markets Institute

Place du Congrès 1, 1000 Brussels, Belgium

www.eurocapitalmarkets.org

ecmi@ceps.eu

Editorial Board Cosmina Amariei, Karel Lannoo, Apostolos Thomadakis

ISBN 978-94-6138-712-7

© Copyright 2018, Love Gleisner and Apostolos Thomadakis. All rights reserved.

Contents

1.	Equity Market
2.	Debt Securities5
3.	Exchange-traded derivatives (ETDs) market
4.	Over-the-counter derivatives (OTC) market
5.	Investment Funds
6.	References
	List of Figures and Table
Figur	re 1. Domestic market capitalisation in € trillion (lhs) and % of GDP (rhs)
Figu	re 14. Notional amount outstanding of OTC IRD, by sector of counterparty (€ trillion)
	le 1. Investment fund assets (UCITS & AIF), by country of domiciliation, end-2017 (€ trillion)

Key Highlights

Equity

- European market capitalisation increased by 11.3% in 2017.
- Number of listed companies on European exchanges displayed positive growth for the first time in seven years and IPO investment flows grew by 37.9%.
- Number of ETF listings on European exchanges grew in 2017 but the value of ETF trading declined by 12.8%.

Debt securities

- Notional amounts of outstanding debt in EU28 grew both in terms of value and share of GDP.
- Notional amounts of debt issued by non-financial corporations continued to grow, signalling a change in financing strategies among EU28 businesses.
- Outstanding volumes of covered bonds continued to decline, predominantly driven by declining amounts of public sector bonds.
- Usage of CDOs as collateral for securitisation issuance grew in 2017 while aggregate issuance declined.

Exchange-traded derivatives

- European markets exhibited overall growth with turnover on interest rate futures being up by 29.9% in 2017.
- Global trading in commodity derivatives, unlike interest rate derivatives, saw its first year-on-year decline since 2011.
- Strong growth in trading of equity derivatives in emerging markets.

Over-the-counter derivatives

- Strong appetite for short-term instruments and interest rate derivatives (IRD) contracts in global over-the-counter (OTC) trading.
- Gross market value of dollar-denominated IRD contracts declined to lowest level since the financial crisis.
- Central clearing continues to make inroads for IRD contracts.

Investment and mutual funds

- Net assets of European investment funds reached an all-time high of €14.9 trillion in 2017.
- Net assets of alternative investment funds (AIF) saw its ninth consecutive year of growth.
- Growth for UK investment funds recovered following the aftermath of the 2016 referendum.

Recent Developments in European Capital Markets Key findings from the 2018 ECMI Statistical Package

ECMI Research Report No. 14 / December 2018

Love Gleisner and Apostolos Thomadakis*

his paper provides an overview of the key findings observed in the 2018 ECMI Statistical Package, a comprehensive and annually updated database on the dynamics of European and global capital markets (covering the US, Japan, China and other relevant markets). The key trends obtained from the Package on equity markets, debt securities, exchange-traded derivatives, over-the-counter derivatives and asset management are outlined in this report.

1. Equity

2017 marked a strong year for stock markets worldwide with benchmark indices rising to record-high levels. These results were largely driven by global recovery in GDP growth, decisions to continue accommodative monetary policies in major markets, low levels of inflation and volatility, recovering commodity prices, and strong corporate profits. At EU level, equity markets also benefited from gradual progress on Brexit negotiations and optimism driven by election outcome (WFE, 2018a).

The above-listed developments contributed to the growth of market capitalisation for European markets by 11.3% compared to 2016, reaching an all-time-high of €1.8 trillion (Figure 1, left-hand panel). But also as a percentage of GDP market capitalisation grew, reaching 76.9% for the EU28 (Figure 1, right-hand panel). Even though the year started on a weak note, with negative returns, stock markets picked up very quickly as the European Central Bank (ECB) upgraded its 2017 and 2018 growth and inflation forecasts. Moreover, markets responded positively to political developments, such as the French presidential elections and the Dutch elections. As the year progressed, European equities gained further pace as the European Commission's economic sentiment indicator (ESI) rose to its highest level (115.2) since June 2007.¹ The year closed with European markets being in a positive mood supported by loosening monetary policy from the ECB with the announcement of extending the quantitative easing to September 2018.

^{*} At the time of drafting this report, Love Gleisner was a Research Trainee at ECMI, and Apostolos Thomadakis, Ph.D. a Researcher at ECMI.

¹ The economic sentiment indicator is a composite indicator made up of five sectoral confidence indicators with different weights: industrial confidence indicator (40 %); construction confidence indicator (5 %); services confidence indicator (30 %); consumer confidence indicator (20 %); retail trade confidence indicator (5 %).

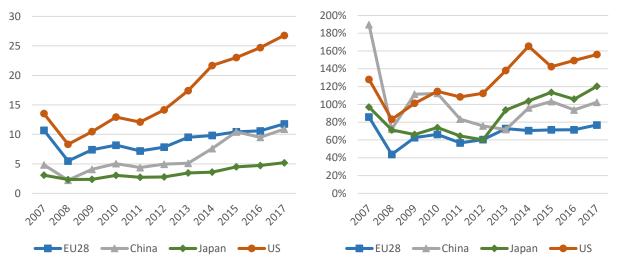


Figure 1. Domestic market capitalisation in € trillion (lhs) and % of GDP (rhs)

Source: 2018 ECMI Statistical Package.

For the UK, 2017 was a year of recovery as market capitalisation increased by 7% following the decline observed in 2016 (down by 7.5%). Nevertheless, this was not enough as the majority of European equity markets outperformed the UK, mainly due to the UK general election which unexpectedly resulted in a hung parliament. Supportive monetary policy by the Bank of England (BoE), which included keeping interest rates low, led to the year ending in a positive note. The severity of the impact of the UK's departure on Europe's equity markets remains to be seen. At end-2017, market capitalisation at the London Stock Exchange accounted for a quarter (25.1%) of total EU28 capitalisation, and 20% of EU28 GDP.

Despite this upward trend, the gap between the EU and the US has increased over the last decade. Since 2007, European market capitalisation increased by 10.2%, while the US equities market rose by 97.9%. In 2017, total market capitalisation of the companies listed in the US stood at €26.8 trillion (or at 156% of GDP), higher by 8.4% than 2016. This was mainly due to significant gains posted by technology and ecommerce stocks. In particular, large capitalisation stocks, such as the FAANG² stocks, outperformed small-and mid-cap stocks.

Moving to the Asian equity markets, both China and Japan recorded growth rates of 24.7% and 9.6% in 2017, respectively. In particular, market capitalisation of the Chinese equity market stood at €10.9 trillion (102.4% of GDP), as a result of the Chinese government's agenda to lower financial risk and implement structural reforms. At a much lower level, but at a fast-growing pace, the Japanese equity market peaked at €5.2 trillion in 2017, expanding by 78.1% over 2016.

An influential factor for the low levels of market capitalisation in the EU relative to the US and Asian markets is that capital market development in the EU varies greatly across member states. European equity markets are highly fragmented, with the disparity between north and south particularly prominent. For example, in north European countries market capitalisation is in excess of 100% of GDP (e.g. in SE 141.5%, DK 126.2%, NL 125.2%, FI 99.8%), while in eastern and southern European countries market capitalisation is often below 50% (e.g. SK 2.7%, LV 4.6%, GR 23.7%, PT 32.7%).

² FAANG includes Facebook, Apple, Amazon, Netflix, and Google.

Favourable market conditions were also reflected in the number of listed companies. Even though the largest growth rate was observed in China (11.5%, or 5,603 listed companies at end-2017), European listed companies increased by 531 to 7,911 (Figure 2). A major driver of this growth was attributed to the Wiener Börse, which saw the number of its listed companies grow from 83 in 2016 to 536 in 2017.³ Moreover, the Vienna stock exchange hosted one of the largest IPOs (BAWAG Group AG) by proceeds (€1.9 billion) in 2017.⁴

Turning to companies listed on European exchanges, a rather complex picture emerges. The level of fragmentation is such that 7,911 companies share a market capitalisation of 11.8 trillion, or that the average capitalisation per listed company is €1.5 billion. This is approximately 3.5 times lower than the capitalisation of a typical US company (€5.1 billion). To highlight the fragmentation, the reported numbers correspond to companies admitted for listing on 28 European exchanges, as opposed to only two US exchanges (Nasdaq and NYSE). However, just a mere handful of exchanges dominate trading activity: London Stock Exchange (LSE), Euronext Paris and Deutsche Börse account for 60.1% of the total European market.

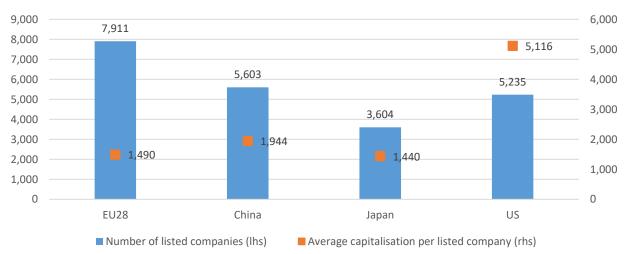


Figure 2. Number of listed companies (thousands) and average size per company (€ million), end-2017

Source: 2018 ECMI Statistical Package.

Capital raised through IPOs on European exchanges experienced a significant rise in 2017, increasing by 37.9% to €34.3 billion (Figure 3). The majority of this growth was through the LSE, which alone accounted for 48.8% of European IPO investment, followed by the Luxembourg Stock Exchange (LuxSE) with 12.3%. In the US, technology and healthcare companies were the major contributors towards the €32.4 billion generated in 2017, corresponding to a growth of 89.9% over the previous year. Finally, the Chinese market continues to be the world's largest IPO market, with the amount of funds raised higher by 4.5% to reach €44.7 billion in 2017.

³ In particular, the number of foreign companies with listed shares in Vienna stock exchange increased from 12 in 2016 to 469 in 2017. This is due to new strategic initiatives adopted in 2017, such as the extension of the quotation, the global marketing of Austrian stocks and exchange services.

⁴ See https://www.wienerborse.at/en/news/vienna-stock-exchange-news/news/ipo-bawag-group/.

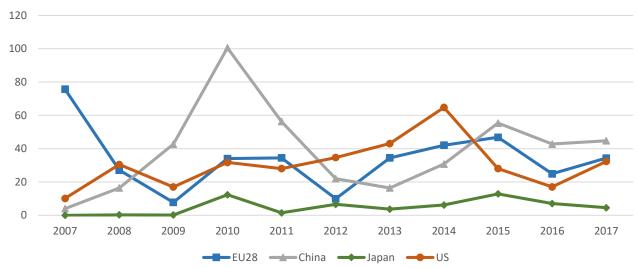


Figure 3. IPO Investment Flows (€ billion)

Source: 2018 ECMI Statistical Package.

While in 2017 the number of exchange traded funds (ETFs) listed in global markets increased by 4.6% to 10,152, their total traded value went down by 11.9% (Figure 4). Focusing on Europe, the number of ETFs admitted for listing peaked at 6,751. This is 3.5 times more than in the US (1,835). However, European ETF turnover totalled €738 billion, which is equivalent to only 6.9% of the US market turnover (€10,730 billion). As a result, the average turnover of a European ETF is €112 million, when in the US an ETF can experience, on average, a turnover of €5.8 billion.

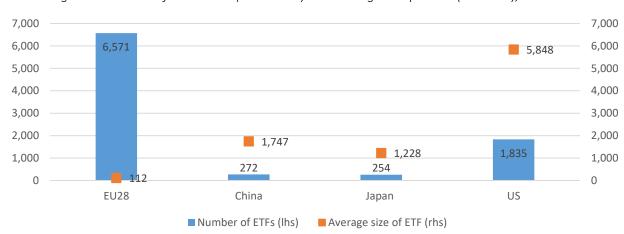


Figure 4. Number of listed ETFs (thousands) and average size per ETF (€ million), end-2017

Source: 2018 ECMI Statistical Package.

This puzzling combination, which shows that fragmentation is not only an issue for the primary equity markets, is largely a reflection of three factors. The first is related to the distribution of ETFs to investors, particularly retail.⁵ As commission is the main driver, passive funds, which rarely pay commission, have

⁵ Only 2% of online advertising of financial instruments is towards ETFs, as a recent mystery shop exercise revealed (Risk and Trend Mapping n°17 - 2016 Risk Outlook, Autorité des Marchés Financiers).

been neglected by banks (the main sellers of ETFs in Europe, as opposed to specialist brokers in the US). The second factor is the very low engagement of retail investors in European capital markets. A high degree of risk aversion and a heavy reliance on pay-as-you-go pension schemes have resulted in a participation rate of 10-15% in ETFs for European retail investors. The same number for US retail investors is around 45%. The third factor is related to MiFID I, which when implemented in 2007, failed to recognise ETFs as an asset class. Therefore, not all transactions were required to be reported, leading to much of the market being traded bilaterally. Hence, according to estimates, around 70% of all European ETF trading is taking place over the counter (OTC) and only 30% on-exchange, with the reverse proportions applying in the US (Thomadakis, 2018b).

2. Debt Securities

With equity markets displaying sluggish or even negative growth in several major economies, debt financing has come to occupy an increasingly large share of funding for corporations and financial institutions in major economic areas. This has been driven by several factors including monetary policy following the financial crisis, which provided a volume-based incentive to issue more covered bonds and lengthen the average maturity of government bonds and liquid debt markets, as well as biases in major corporate income tax systems against equity financing (Valiante, 2016; Spengel *et al.*, 2016).

The global amount of outstanding debt securities continued its upward trend and increased by 3.4% to €94.5 trillion in 2017 (Figure 5). While China experienced a growth rate of 16.6% (to €10.4 trillion) and Europe of 7.1% (to €24.9 trillion), in the US and Japan the market has shrunk by 3.8% (to €34.8 trillion) and 1.1% (to €11.2 trillion), respectively. However, when looking at the evolution of the aggregate level of debt-to-GDP ratio, different patterns emerge across economies. After entering a deleveraging phase in 2009, gross issuance of debt in EU28 picked up, particularly in France and Netherlands, resulting in a debt to GDP level of 162.6%. China has also maintained its momentum since 2013; by the end of 2017, the outstanding debt doubled to 97.9% of GDP. For Japan, the most indebted country in the world, debt levels have risen to 260% of GDP.

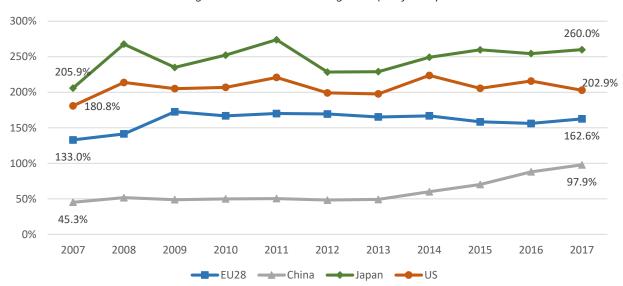


Figure 5. Total outstanding debt (% of GDP)

Traditionally, the EU region has been characterised by debt markets that are fragmented by the type of issuer, with financial institutions and governments taking up the majority (92%) of issuance as EU non-financial corporates (NFCs) rely mostly on bank lending and unlisted equity capital (Figure 6). The amount of outstanding debt within the EU has been growing consistently over past ten years (from €16.6 trillion in 2007 to €24.9 trillion in 2017), with financial institutions providing a big boost before the global financial crisis (GFC) and governments thereafter. Moreover, in 2017, EU financial institutions experienced the largest year-on-year growth (7%) in the volume of outstanding debt.

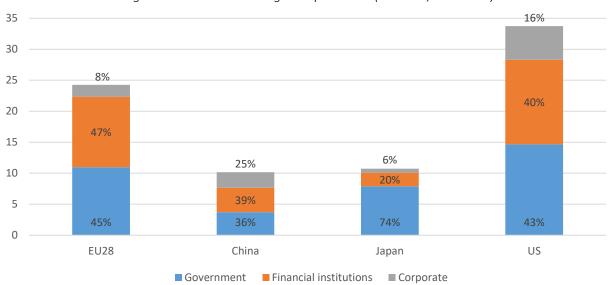


Figure 6. Total outstanding debt per issuer (€ trillion, end-2017)

Source: 2018 ECMI Statistical Package.

Debt securities of non-financial corporations in the EU have seen significant growth since the financial crisis with the outstanding amount growing 5.6% annually on average since 2007 (Figure 7). This growth was largely fuelled by banks struggling to recover profitability and to adapt to more stringent capital and liquidity requirements following the crisis. Furthermore, yields on sovereign bonds have declined since the financial crisis, making corporate bonds more attractive for investors. As a result, many non-financial corporations have shifted their strategies towards bond financing (DB, 2018; Lund *et al.*, 2018). Despite this growth, debt-financing remains a relatively small part of funding for non-financial corporations in the EU, with credit from banks still acting as the core funding source.

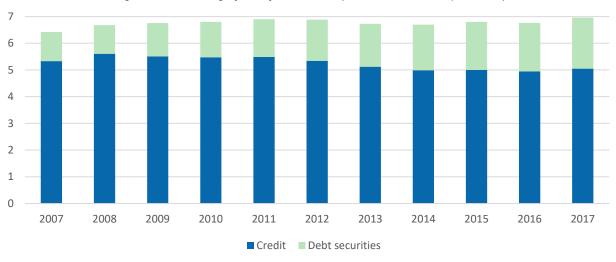


Figure 7. Financing of non-financial corporations in EU28 (€ trillion)

Note: Credit to NFCs correspond to the outstanding amounts of loans granted by MFIs (as defined by the European Central Bank) to both public and private NFCs, including repo and overnight transactions. *Source*: 2018 ECMI Statistical Package and 2018 ECRI Statistical Package.

Outstanding debt of non-financial corporations in the US has seen more dramatic growth than in the EU with the amount more than doubling between 2007 and 2017 (Figure 8). However, as in the EU, credit remains a larger funding source in aggregate for US non-financial corporations.

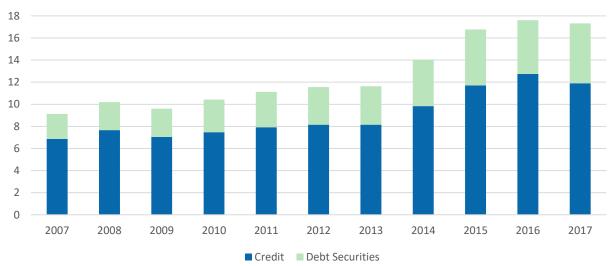


Figure 8. Financing of non-financial corporations in the US (€ trillion)

Note: Credit to NFCs correspond to the outstanding amounts of loans granted by MFIs (as defined by the European Central Bank) to both public and private NFCs, including repo and overnight transactions. *Source*: 2018 ECMI Statistical Package and 2018 ECRI Statistical Package.

The covered bond market ranks high among funding sources for EU banks, in particular in northern Europe (EC, 2018). Due to over-collateralisation, covered bonds are relatively cheap, have a long maturity and offer an appealing investment class for risk-averse investors. Besides the fact that they form an attractive funding source for banks and public authorities, the European Central Bank (ECB) covered bond purchase programmes (CBPPs) formed an additional incentive for banks to issue covered bonds.

At the end of 2017, the amount outstanding of covered bonds was at €2.2 trillion, slightly down by 0.4% from 2016 (Figure 9, left-hand panel). The most common collateral used was residential and commercial mortgages, which accounted for 87.3% of the outstanding market (39.7% in 2017). Looking at the gross issuance, it also slowed down in 2017 and stood at €407 billion (Figure 9, right-hand panel). However, this was mainly related to less issuance from banks outside the euro area (ECBC, 2018). Moreover, the declining trend is largely fuelled by negative growth in public sector bonds, which has been significantly steeper than the decline in mortgage bonds. In fact, the outstanding amount of mortgage bonds increased in 2017.



Figure 9. Covered bonds amounts outstanding and gross issuance by type in Europe (€ trillion)

Note: Europe includes AT, CH, CY, CZ, DE, DK, ES, FI, FR, GR, HU, IE, IT, LU, LV, NL, NO, PL, PT, SE, SK, and UK. *Source*: 2018 ECMI Statistical Package.

3. Exchange-traded derivatives (ETDs)

As many central banks changed their interest rate policy during 2017, it is not surprising that there was an increase in the turnover on interest rate futures (IRF) for both North American and European markets (Figure 10). The global number of traded contracts peaked in 2017, exceeding 3.9 billion (WFE, 2018b). In terms of turnover, European markets exhibited the largest growth with turnover on IRD being up by 29.7% on 2016. This growth was largely driven by long-term interest rate contracts (LTIRs), which make up 52.8% of total IRFs contracts traded.

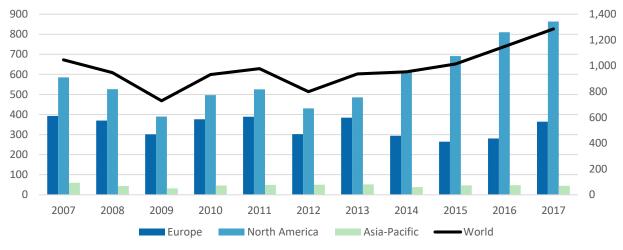


Figure 10. Turnover on interest rate futures by location of exchange (€ trillion)

Note: Europe includes the following exchanges: Eurex, ICE Futures Europe, LSE CurveGlobal, NYSE Liffe London, Optionsmarknad Stockholm AB, Warsaw Stock Exchanges. North America includes the following exchanges: Chicago Board of Trade, Chicago Mercantile Exchange, ERIS Exchange, Mercado Mexicano de Derivados, Montreal Exchange. Asia-Pacific includes the following exchanges: Bombay Stock Exchange, China Financial Futures Exchange, Hong Kong Exchanges & Clearing, Korea Exchange, National Stock Exchange of India, Osaka Exchange, Singapore Exchange Derivatives Trading, Sydney Futures Exchange, Tokyo International Finance Futures Exchange.

Source: 2018 ECMI Statistical Package.

Global trading in commodity derivatives, unlike interest rate derivatives, saw its first year-on-year decline since 2011, reaching 3.5 billion contracts at end-2017 (corresponding to a 13.3% decrease on 2016) (Figure 11). This trend was almost entirely driven by a fall in volumes traded on Chinese exchanges, which account for a substantial majority of the trading in commodity derivatives (54% in 2017). This development follows regulatory action by Chinese authorities to combat speculation in futures contracts, in particular for steel and nonferrous metals that have previously led to ballooning prices for commodity futures.

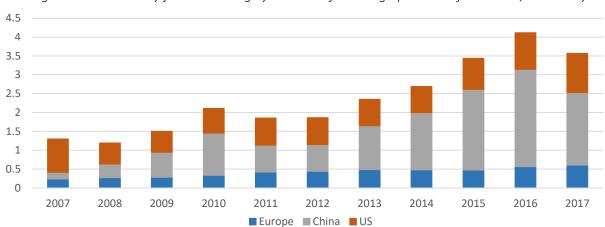


Figure 11. Commodity futures trading by location of exchange (number of contracts, in billions)

Notes: Europe includes the following exchanges: Borsa Italiana, Eurex, Euronext, Budapest SE, ICE Futures Europe, London Metal Exchange, and London SE Group. China includes the following exchanges: Hong Kong Exchanges, Shanghai Futures Exchange, and Zhengzhou Commodity Exchange. US includes the following exchanges: CME Group, and ICE Futures US.

4. Over-the-counter derivatives (OTC)

While retaining its position as the biggest global market in 2017, the OTC derivatives market has gradually declined in size since its peak in 2014. A major factor fuelling this decline has been trade compression and the elimination of redundant contracts. In particular, a number of jurisdictions have taken steps to encourage a more widespread use of other risk-mitigation measures for non-centrally cleared derivatives (NCCDs), e.g. trade compression and portfolio reconciliation (Thomadakis, 2018a).

Following on from previous years, notional amounts continued to decline in 2017. Since 2015 the market contracted by 14.2% to €443 trillion (Figure 12, left-hand panel). However, it is worthwhile noting that during the first half of 2017 notional amounts increased by 6.3% relative to end-2016. This change was largely concentrated in interest rate derivative (IRD) contracts and driven by increased positioning and hedging at the short end of the yield curve in response to changing expectations about the outlook for monetary policy. Furthermore, the growth in IRD contracts was largely in contracts with a maturity of one year or less (BIS, 2017).

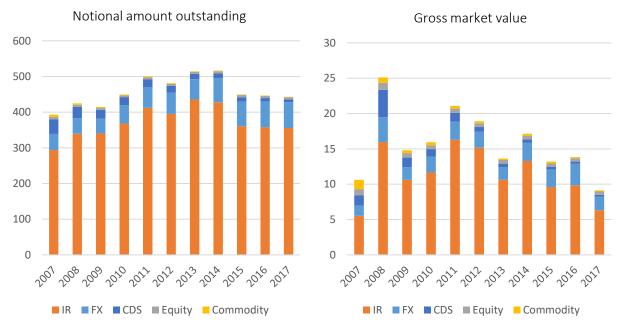


Figure 12. Notional amount outstanding and gross market value of OTC derivatives (€ trillion)

Notes: Values correspond to year-end. In December 2017, BIS revised the full history of the OTC derivatives statistics to incorporate more data from the Triennial Central Bank Survey. Thus, amounts for all breakdowns are higher due to the allocation of previously undistributed amounts.

Unlike notional amounts, the gross market value of OTC derivatives, which arguably provides a more meaningful measure of market and counterparty credit risk, has declined dramatically throughout 2017 (Figure 13, right-hand panel). In particular, the gross value reached its pre-2007 level ending the year at €9.1 trillion (down by 34.1%). Such a move reflects the increase in long-term yields from the synchronised upswing in global growth for advanced economies, which reduced the gap between market interest rates on the reporting date and those prevailing at contract issuance (BIS, 2018a; BIS, 2018b)

As for interest rate derivatives (IRD), which represent 80.3% of the global OTC derivatives market, the notional amount of such contracts dropped marginally by 0.4% to €356 trillion. While activity in eurodenominated contracts increased from €98 trillion in 2016 to €102 trillion in 2017, combined activity on other currencies (i.e. USD, JPY and GBP) deteriorated by 4.4% (Figure 13, left-hand panel). The observed decline in OTC IRD activity was concentrated in the long-term segment. The notional amount of outstanding contracts with a remaining maturity of more than a year fell from €203 trillion to €196 trillion between 2016 and 2017. On the other hand, trading in short-term contacts continued to be the most preferred option, as their notional amount increased by 3.8% to €160 trillion (Figure 13, right-hand panel).

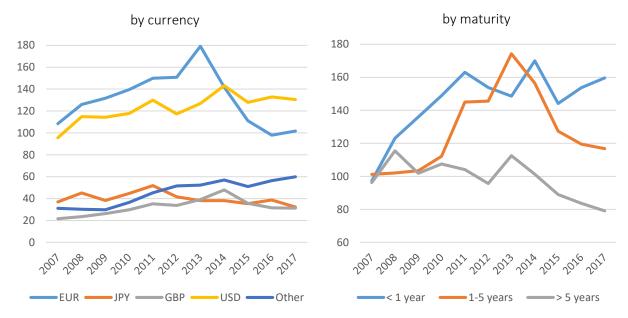


Figure 13. Notional amount outstanding of OTC IRD, by currency and maturity (€ trillion)

Source: 2018 ECMI Statistical Package.

Central clearing, which acts as a key element in the authorities' agenda for reforming OTC derivatives markets to reduce systemic risks, has made further inroads in 2017.⁶ The cleared segment, which can be approximated by the share of positions with other financial institutions, rose from €305.8 trillion to €310.1 trillion during 2017 (Figure 14). Consequently, the share of outstanding IRD cleared through central counterparties (CCPs) increased to 87.2%. Bilateral contracts between reporting dealers declined further to €33.9 trillion. These shifts are consistent with the novation of the move of contracts between dealers to CCPs.

⁶ EMIR introduced the obligation to centrally clear certain classes of OTC derivatives contracts through central counterparties (CCPs) in 2012 as part of EU regulation No 648/2012. As of end-December 2017, 16 CCPs were authorized to operate in the EU (ESMA, 2018).

450 400

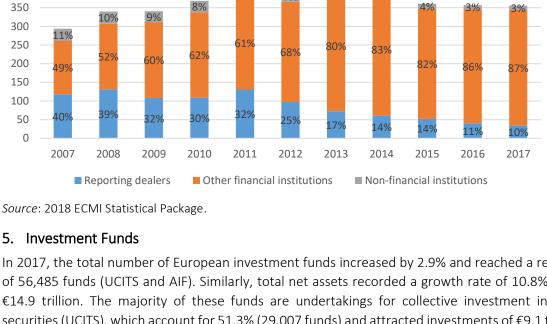


Figure 14. Notional amount outstanding of OTC IRD, by sector of counterparty (€ trillion)

In 2017, the total number of European investment funds increased by 2.9% and reached a record number of 56,485 funds (UCITS and AIF). Similarly, total net assets recorded a growth rate of 10.8% and reached €14.9 trillion. The majority of these funds are undertakings for collective investment in transferable securities (UCITS), which account for 51.3% (29,007 funds) and attracted investments of €9.1 trillion (11.3% more than a year ago) (Figure 15, left-hand panel). However, even though their number has declined since the peak of 2008 (35,840 funds), net assets have more than doubled over the same period (from €4.4 trillion in 2008 to €9.1 trillion in 2017). On the other hand, during 2017 the number of alternative investment funds (AIF) increased marginally by 1.5% to 27,478, while assets under management rose by 7.9% to €5.7 trillion (Figure 15, right-hand panel).

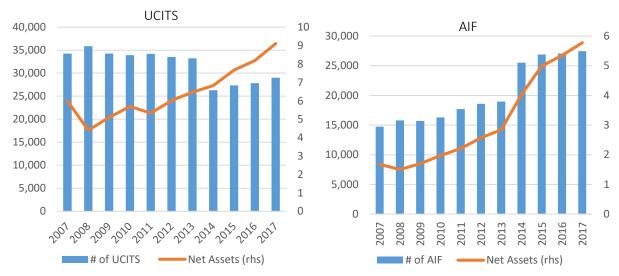


Figure 15. Number of investment funds and total net assets (€ trillion) for EU28

Looking at the geographic distribution of investment funds in 2017, the top five financial centres (Luxembourg, Ireland, France, Germany, and UK) managed 81.8% (or €12.2 trillion) of total European investment fund assets and were home to 73.9% of investment funds (or €12.2 trillion) (Table 1). The marginal growth in the market share of the largest centres (81.3% in 2016) is largely attributed to the recovery of the UK investment fund industry in 2017, following the decline observed in 2016 due to the British referendum on leaving the EU.

Table 1. Investment fund assets (UCITS & AIF), by country of domiciliation, end-2017 (€ trillion)

	# of Funds	Net Assets	$\% \Delta \text{ in } 2017^1$	Market Share ²	% GDP³
Luxembourg	14,728	4,159	12.4%	27.9%	7,511%
France	10,860	1,929	8.1%	13.0%	84.2%
Ireland	6,831	2,396	14.9%	16.1%	809.1%
Germany	6,230	2,038	8.1%	13.7%	62.5%
United Kingdom	3.105	1,646	12.3%	11.1%	70.8%
Spain	2,409	295	10.0%	2.0%	25.4%
Austria	2,023	182	5.2%	1.2%	49.5%
Netherlands	1,816	843	5.2%	5.7%	115.1%
Italy	1,600	320	7.8%	2.2%	18.7%
Belgium	1,101	156	23.1%	1.1%	35.7%

Notes: 1 End 2017 compared to end 2016. 2 Market share of EU28. 3 As % of domestic GDP.

Source: 2018 ECMI Statistical Package.

The composition of fund managers' portfolio remained largely the same. Equity and bond assets remained the most preferred asset classes in 2017 (Figure 16). In particular, equity represented 29.3% (\leq 4.1 trillion) of total net assets, followed by bonds which accounted for 23.6% (\leq 3.1 trillion). Over recent years, other types of assets, such as real estate, hedge funds, structured products and private equity, have gained a significant share of the investment portfolio.

100.0% 90.0% 15.6% 15.4% 80.0% 16.5% 16.5% 1<mark>9.6%</mark> 70.0% 60.0% 8.7% 2<mark>2.2</mark>% 50.0% 29.9% 23.6% 40.0% 30.0% 20.0% 40.9% 33.6% 29.3% 10.0% 0.0% 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 ■ Equity ■ Bond ■ Money Market ■ Balanced/Mixed ■ Other

Figure 16. Net assets of investment funds by type, EU28 (% Share)

6. References

BIS (2017), "OTC derivatives statistics at end-June 2017", November 2017, Bank for International Settlements.

BIS (2018a), "Volatility is Back", BIS Quarterly Review, March 2018, Bank for International Settlements.

BIS (2018b), "OTC derivatives statistics at end-December 2017", May 2018, Bank for International Settlements.

DB (2018), "Monthly Report: January 2018" Vol. 70:1, Deutsche Bundesbank.

EC (2018), "Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the issue of covered bonds and covered bond public supervision and amending Directive 2009/65/EC and Directive 2014/59/EU", March 2018, European Commission.

ECBC (2018), "European Covered Bond Fact Book", August 2018, European Covered Bond Council, 13th edition.

ECRI (2018), "ECRI Statistical Package 2018 on Lending to Households in Europe", August 2018, European Credit Research Institute.

ESMA (2018), "ESMA Annual Statistical Report: EU Derivatives Markets 2018", October 2018, European Securities and Markets Authority.

Lund, S., J. Woetzel, E. Windhagen, R. Dobbs and D. Goldstein (2018), "Rising Corporate Debt: Peril or Promise?", Discussion Paper, June 2018, McKinsey Global Institute.

Spengel, C., J. Heckemeyer, K. Nicolay, R. Bräutigam, O. Klar and K. Stutzenberger (2016), "The Effects of Tax Reforms to Address the Debt-Equity Bias on the Cost of Capital and on Effective Tax Rates", Taxation Papers, Working Paper N. 65 – March 2016, European Commission.

Thomadakis, A. (2018a), "Over-the-counter interest rate derivatives: The clock is ticking for the UK and the EU", ECMI Research Report No. 13/March, European Capital Markets Institute.

Thomadakis, A. (2018b), "The European ETF Market: What can be done better?", ECMI Commentary No. 52/24 April, European Capital Markets Institute.

Valiante, D. (2016), "Europe's Untapped Capital Markets: Rethinking financial integration after the crisis", CEPS Paperback, London: Rowman & Littlefield International.

WFE (2018a), "Market Highlight Reports 2017" February 2018, World Federation of Exchanges.

WFE (2018b), "WFE IOMA 2017 Derivatives Report", April 2018, World Federation of Exchanges.

Annex: Methodology and Data Sources 2018 ECMI Statistical Package

The ECMI Statistical Package retrieves, compiles and analyses data from publicly available sources and reports as follows: Section 1: WFE, FESE and trading venues; Section 2: BIS, ECB, ECBC, AFME, WFE, FESE and trading venues; Section 4: BIS and WFE; Section 5: EFAMA, OECD, Pensions Europe and Insurance Europe; Section 6 to 8: Eurostat, IMF and World Bank.

As of 2018, a number of changes were applied to the compilation and annotation of the ECMI Statistical Package to accommodate changes in reporting standards of data providers. These changes were adopted to comply with the new reporting standards used by the Bank for International Settlements, who, in December 2017, revised the full history of their Over-the-counter (OTC) derivatives statistics to incorporate more data from the Triennial Central Bank Survey. Furthermore, data in the Statistical Package has been updated so as to include Lithuania as a member of the euro area.

For more information and to obtain the ECMI Statistical Package 2018:

http://www.eurocapitalmarkets.org/statistical-packages

European Capital Markets Institute

ECMI conducts in-depth research aimed at informing the debate and policy-making process on a broad range of issues related to capital markets. Through its various activities, ECMI facilitates interaction among market participants, policymakers and academics. These exchanges are fuelled by the various outputs ECMI produces, such as regular commentaries, policy briefs, working papers, statistics, task forces, conferences, workshops and seminars. In addition, ECMI undertakes studies commissioned by the EU institutions and other organisations, and publishes contributions from high-profile external researchers.



Centre for European Policy Studies

CEPS is one of Europe's leading think tanks and forums for debate on EU affairs, with an exceptionally strong in-house research capacity and an extensive network of partner institutes throughout the world. As an organisation, CEPS is committed to carrying out state-of-the-art policy research that addresses the challenges facing Europe and maintaining high standards of academic excellence and unqualified independence and impartiality. It provides a forum for discussion among all stakeholders in the European policy process and works to build collaborative networks of researchers, policy-makers and business representatives across Europe.

