ECMI Research Report No.17 | February 2021

2020 ECMI Statistical Package: key findings

Apostolos Thomadakis

Highlights

Equity market

- Market capitalisation of listed companies in the EU-27 increased 21.9% in 2019.
- The capital raised though initial public offerings (IPOs) declined 36.3% in 2019.

Debt securities

- The global amount of outstanding debt securities in 2019 saw an increase, totalling €86.2 trillion.
- Notional amounts of outstanding debt in the EU-27 rose, both in terms of value (+3.5%) and GDP share (standing at 143.7%).
- Issuance of securitised products fell 19.6% to €217 billion in the EU-27, while in the US it increased 14.1% to €1.9 trillion.

Exchange-traded derivatives

- The trading of interest rate derivatives (IRD) in Europe slowed (-11.2%) to €420 trillion in 2019.
- Global trading in commodity derivatives remained stable at €120.5 trillion, while the number of contracts reached 5.7 billion.

Over-the-counter derivatives

- The notional amount of over-the-counter (OTC) traded derivatives increased 4.5% in 2019, and the gross market value 22.0%.
- Euro-denominated IRD increased 4.7% to €104 trillion, representing 26.1% of all contracts.
- Central clearing continued to make inroads for IRD contracts and increased 8.6%. At the end of 2019, 76.7% of IRD were cleared with central clearing counterparties (CCPs).

Investments funds

- The number of Undertakings for Collective Investment in Transferable Securities (UCITS) funds increased 2.0% in 2019, and the number of non-UCITS funds 2.2%.
- Net assets totalled by UCITS funds were €8.9 trillion, while the non-UCITS reached €6.1 trillion.
- Equity and bond funds represented 30.0% and 24.2% of the total EU-27 investment fund market in terms of net assets.
- The number of listed exchange-traded funds (ETFs) in the EU-27 rose 7.7%, and the total value of ETF trading shrank 11.9%.

Contents

List of Figures and Tables

2020 ECMI Statistical Package: key findings

ECMI Research Report No. 17 / February 2021

Apostolos Thomadakis*

This report provides an overview of the key findings of the European Capital Markets Institute (ECMI) Statistical Package 2020, a comprehensive and annually updated database on the dynamics of European and global capital markets (covering China, Japan, the US and other relevant markets). The key trends gleaned from the package on equity markets, debt securities, exchange-traded derivatives (ETD), over-the-counter (OTC) derivatives and investment funds are outlined below. The statistical package covers the period up to 2019, which means that the impact of the Covid-19 pandemic is reflected in the figures only to a very limited extent.

1. Equity market

In 2019 global stock markets posted one of their best years since the global financial crisis, as investors shrugged off trade tensions and warnings of slowing growth in major economies. A surge in US technology giants and a strong recovery in the eurozone and Asian stocks drove the increase.

In Europe, the equity market jumped 21.9% and reached an all-time high capitalisation of €9.3 trillion (see Figure 1, left-hand panel), as the European Central Bank (ECB) stepped away from tighter monetary policy and towards further easing and new measures in order to stimulate the economy.[1] The largest increase was observed in Greece (+42.8%),[2] followed by those owned by the stocks listed in the Netherlands (+28.9%), Ireland (+27.8%) and France (+25.1%).

The total market capitalisation of the companies listed in the US surged 16.1% at €29.9 trillion. This was due to – among other factors – President Trump's tax cuts, the Federal Reserve's accommodative policy decisions, share buybacks, and optimism about US growth prospects. The technology sector had its best year since 2009.

Turning to Asia, the Chinese stock market recovered in 2019 (+34.8%) after a dismal performance the previous year. This was supported by the easing of geopolitical risk as China and the US reached a phase one trade deal, but also by Beijing's reduction of borrowing costs and hiked spending on construction and infrastructure projects. The market cap also surged in Japan (+19.1%), despite concerns about slowing growth in China – the country's largest trading partner – and the possible implications of trade disputes.

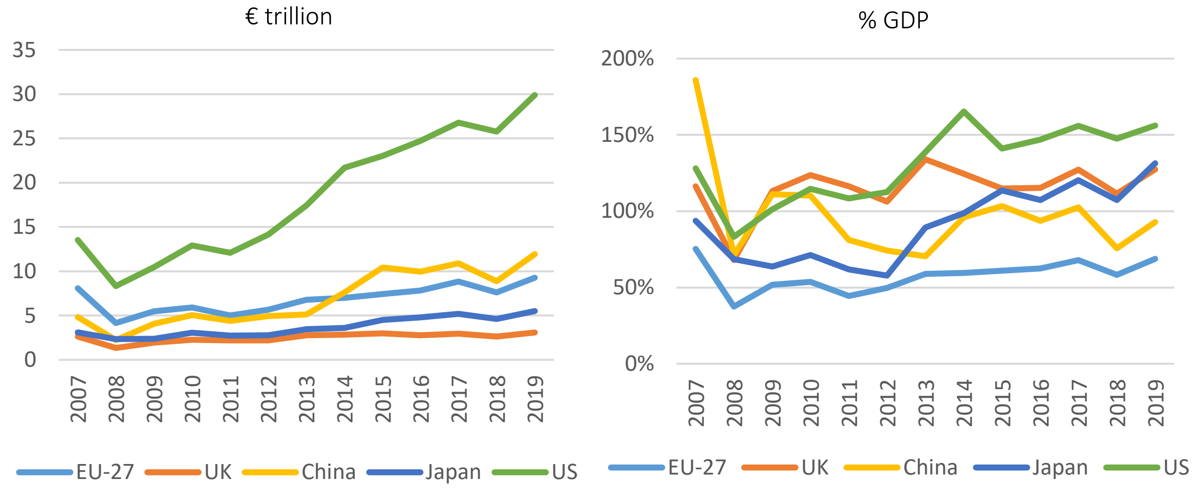
---

* Apostolos Thomadakis, PhD, is a Researcher at ECMI and CEPS. The author gratefully acknowledges Nagesh Kommuri, intern at the European Capital Markets Institute (ECMI), who was responsible for the compilation of the 2020 ECMI Statistical Package.

[1] European markets have largely been driven upward by more accommodative central bank policies and actions. Towards this end, and against the backdrop of a more challenging macroeconomic outlook, the ECB responded in September 2019 to the political uncertainty and disappointing data by returning to quantitative easing and by extending negative interest rates on the deposit facility (ECB, 2019).

[2] This was led by a recovery of the banking sector (+101.6%) and the New Democracy's win at the general elections, while it was further enhanced by a climate of euphoria over the decline in Greek state bond yields.

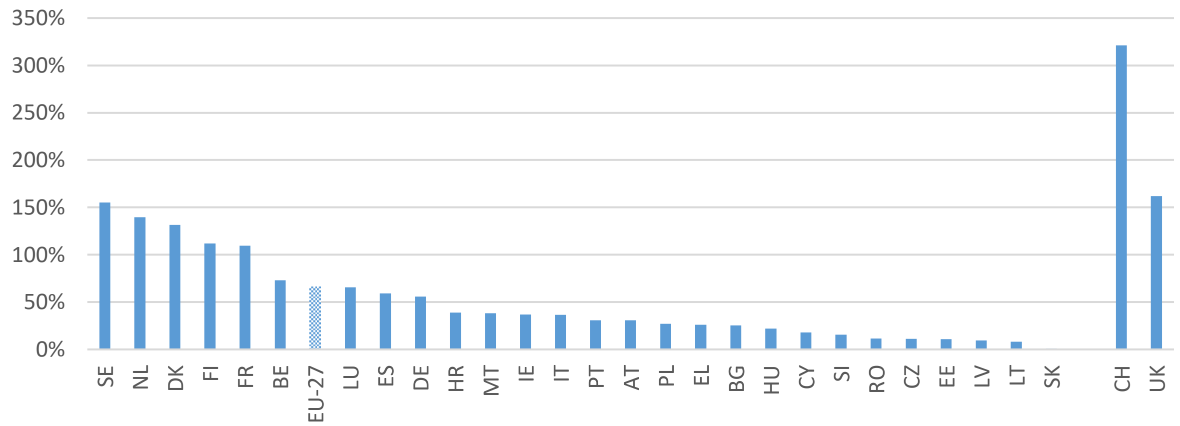
Figure 1. Domestic market capitalisation (2007-19)



Notes: For EU-27, the following stock exchanges are included: Athens, BME, Borsa Italiana, Bratislava, Bucharest, Budapest, Bulgaria, CEESEG – Prague, CEESEG – Vienna, Cyprus, Deutsche Börse AG, Euronext (Amsterdam, Brussels, Dublin, Paris, and Lisbon), Ljubljana, Luxembourg, Malta, Nasdaq Nordics and Baltics (Copenhagen, Helsinki, Stockholm, Tallinn, Riga, and Vilnius), Warsaw, and Zagreb; for the UK, the London Stock Exchange; for the US, Nasdaq-US and NYSE; for China, Hong Kong Exchanges and Clearing, Shanghai, and Shenzhen; and for Japan, the Japan Exchange Group.
Source: 2020 ECMI Statistical Package.

In relative terms, the EU-27 stock market capitalisation represented 68.7% of GDP in 2019 (+10 percentage points compared with 2018), which is significantly lower than that of Japan (131.4%), the UK (127.4%) and the US (156.2%) (see Figure 1, right-hand panel). Among the European stock exchanges, market capitalisation ranges from 1.1% of GDP in Slovakia to 155.1% of GDP in Sweden (see Figure 2). In particular, the three Nordic member states, France and the Netherlands have relatively high market capitalisations, almost twice the European average. The other large European economies such as Spain, Germany, and Italy are below the European average.

Figure 2. European stock market capitalisation (% of GDP, end-2019)



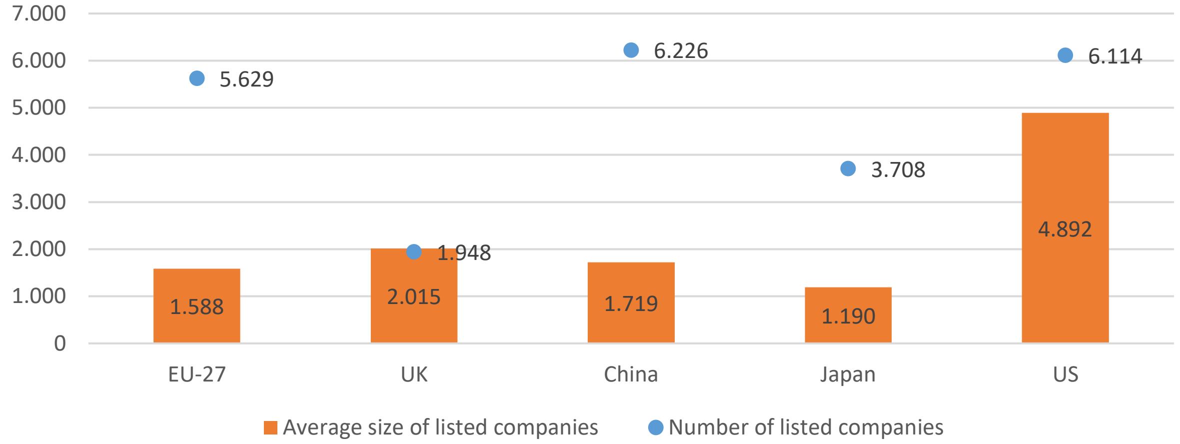
Source: 2020 ECMI Statistical Package.

The number of listed companies remained stable in 2019 in Europe (+0.2% or +10 companies),[3] declined in the UK (-3.9% or -79 companies) and increased significantly in the US (+14.4% or +771 companies).

[3] Although the number of companies admitted for listing throughout Europe went down, the Austrian Wiener Börse continued its development of the past few years and recorded a further intake of 101 companies, bringing the total number of listed companies to 778.

Considering the €9.3 trillion market capitalisation of the 5,692 companies listed in the EU-27, the average market capitalisation is €1.6 billion per listed company (see Figure 3). This is only about a third of the average market capitalisation of a US company (€4.9 billion).

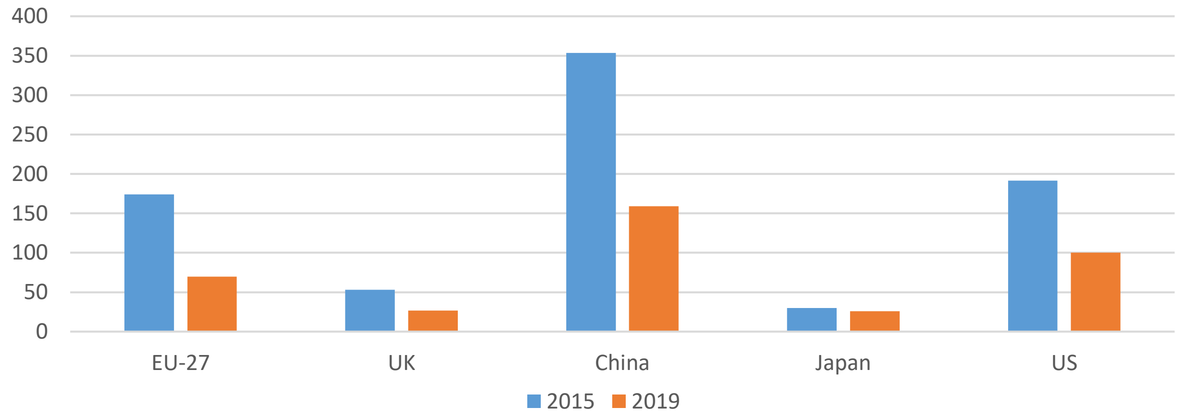
Figure 3. Average capitalisation (€ million) and number (thousands) of listed companies (end-2019)



Source: 2020 ECMI Statistical Package.

Less capital was raised in 2019, compared with the preceding years (see Figure 4). Investment flow towards newly and already listed European companies amounted to €69.6 billion, 29.1% less than the year before and 60.0% lower than 2015. The vast majority of the new capital (83.4% or €58.1 billion) went to already listed companies and the remainder to newly listed companies through IPOs (16.6% or €11.5 billion), while the activity was highly concentrated in a few exchanges.[4] The picture was very similar to other major markets, with China, Japan, the UK and the US all experiencing a fall in investment flows.

Figure 4. Capital raised by listed companies (€ billion)



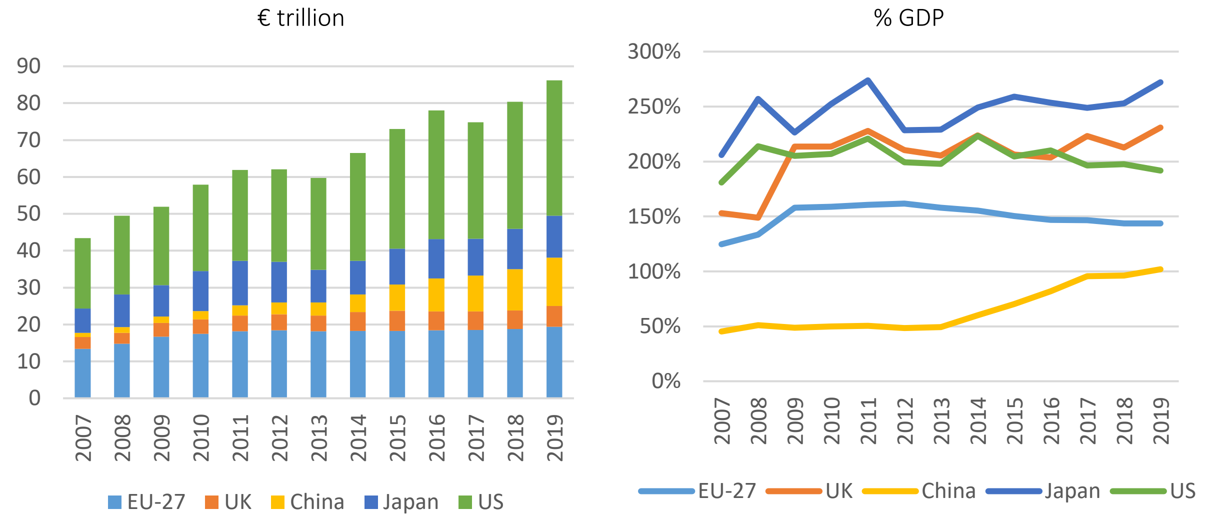
Source: 2020 ECMI Statistical Package.

[4] Although flows into IPOs declined 36.3%, the exception was Borsa Italiana through the hosting of Nexi (an Italian company specializing in the paytech sector), the largest European IPO in 2019 (PwC, 2020).

2. Debt securities

The total outstanding amount of debt securities in the considered economies hit a record level (+7.2%) of €86.2 trillion in 2019 (see Figure 5, left-hand panel). This increase was mainly due to China (+16.3%) and the UK (+11.3%), and to a lesser extent the EU-27 (+3.5%) and the US (+6.5%). In relative terms, the debt-to-GDP ratio remained stable at 143.7% in the EU, while it increased to 230.9% in the UK (+18.2 percentage points) and declined to 191.6% in the US (-5.8 percentage points) (see Figure 5, right-hand panel).

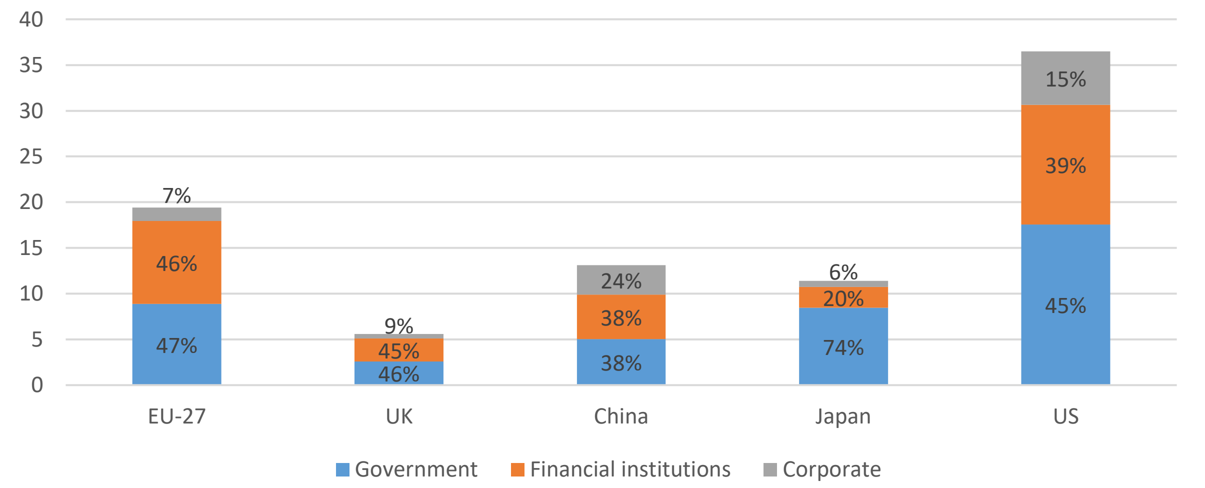
Figure 5. Total outstanding of debt securities (€ trillion, 2007-19)



Source: 2020 ECMI Statistical Package.

The total outstanding amount of debt securities increased in 2019 to €19.4 trillion in the EU-27. Debt securities issued by governments and financial institutions are each responsible for nearly half of the total outstanding, while corporate debt securities represent a very small fraction (see Figure 6). The total amount of debt securities in the EU is about half the size of that in the US (€36.5 trillion).

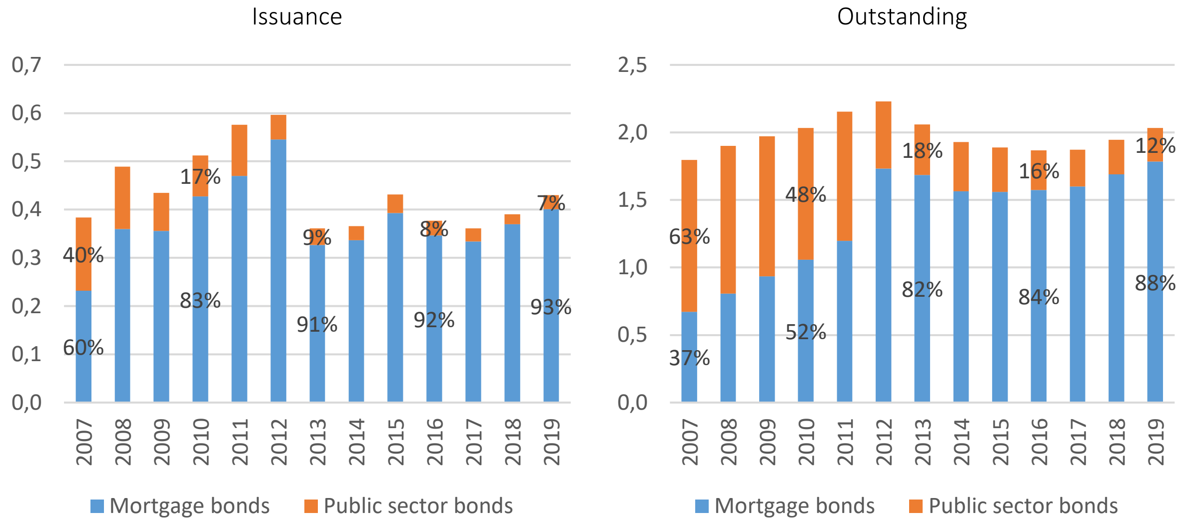
Figure 6. Total outstanding of debt securities (€ trillion, end-2019)



Source: 2020 ECMI Statistical Package.

Turning to the covered bond market, the amount outstanding increased moderately in 2019 (+4.5%) to €2.0 trillion (see Figure 7, right-hand side). The vast majority of these bonds were covered by residential and commercial mortgages (87.8%). Covered bonds with a total value of €430 billion were issued during the year (see Figure 7, left-hand side). The five largest issuing countries were Denmark, Germany, France, Spain and Sweden, which collectively accounted for two-thirds of the total issuance in the EU.

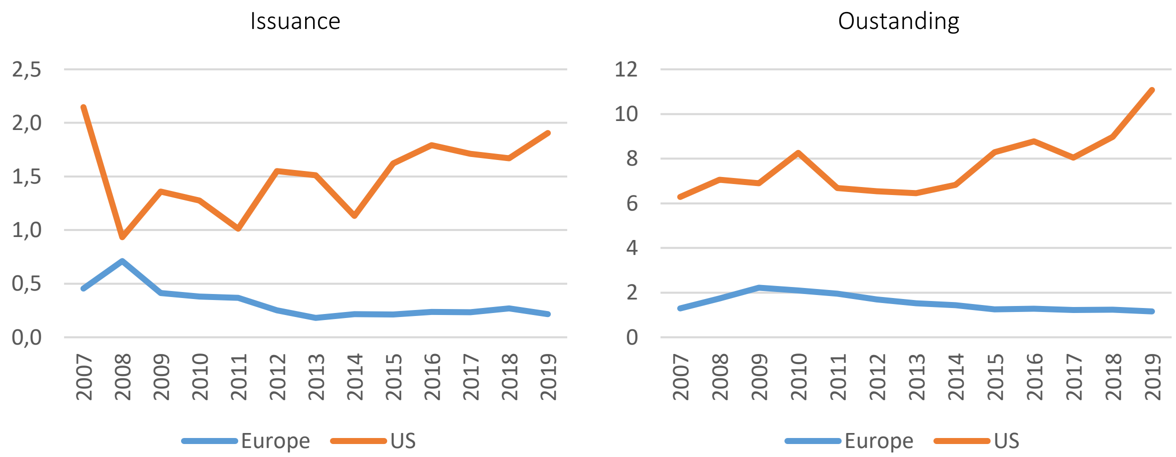
Figure 7. EU-27 covered bonds issuance and amount outstanding (€ trillion, 2007-19)



Note: Europe includes: AT, CY, CZ, DE, DK, EL, ES, FI, FR, HU, IE, IT, LU, LV, NL, PL, PT, SE, and SK.
Source: 2020 ECMI Statistical Package.

Moving to securitisation instruments, 2019 was the first year that the new European Securitisation Regulation was applicable. In total, €217 billion worth of securitised instruments was issued in the EU, which is about 19.6% less than a year earlier (see Figure 8, left-hand panel). The outstanding amount decreased to €1.1 trillion (-6.5%) at the end of the year (see Figure 8, right-hand panel). In turn, in the US the issuance increased (+14.1%) to €1.9 trillion in 2019, while the outstanding amount increased to €11.1 trillion (+23.4%).

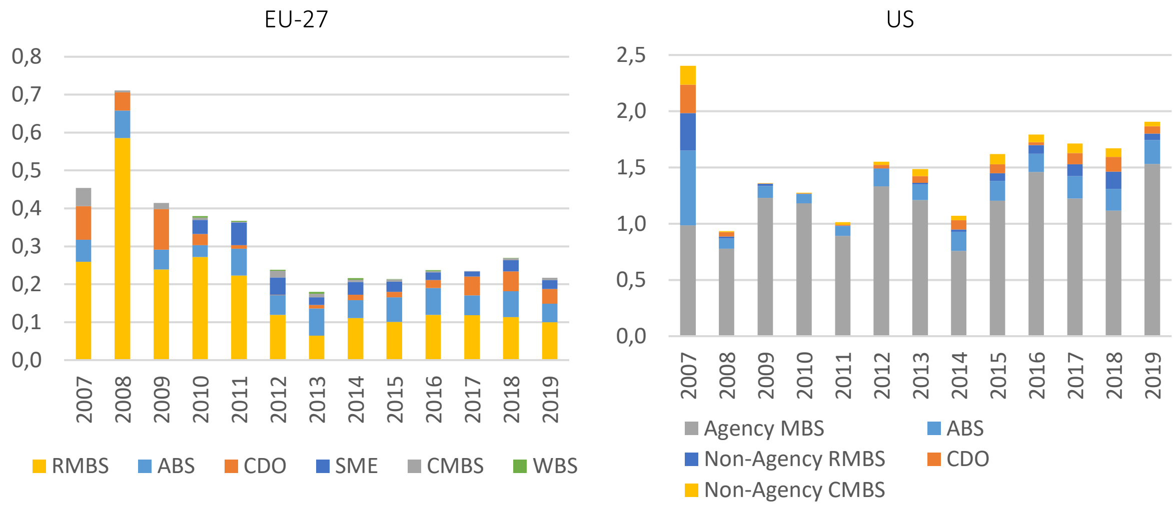
Figure 8. Securitisation issuance and amount outstanding (€ trillion, 2007-19)



Note: Europe includes: BE, CH, DE, EL, ES, FR, IE, IT, NL, PT, UK, Pan European, and other Europe.
Source: 2020 ECMI Statistical Package.

Regarding the asset mix, EU-27 issuance is mainly related to repackaging of residential mortgages and other loans/securities, with small and medium-sized enterprises' (SME) loans repackaging being very limited (see Figure 9, left-hand panel). In 2019, securitisation of residential mortgage-backed securities (RMBS) represented most (46.3%) of the total EU-27 issuance, while asset-backed securities (ABS) – 22.2% – and collateralised debt obligations (CDO) – 18.2% – also represent a substantial part of the securitised securities. Turning to the US, mortgage-backed securities (MBS) accounted for most of the securitisation (80.4%) (see Figure 9, right-hand panel).

Figure 9. Securitisation by collateral in the EU-27 and the US (€ trillion, 2007-19)

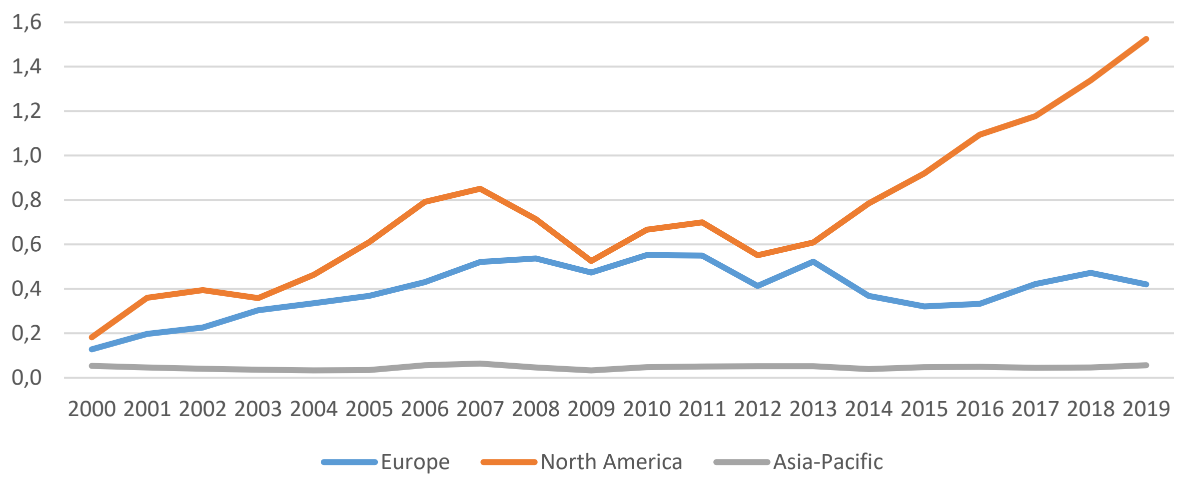


Note: Asset-backed securities (ABS), collateralised debt obligations/collateralised loan obligations (CDO/CLO), commercial mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS), SMEs, whole business securitisation/public finance initiatives (WBS/PFI). In the US, agency mortgage backed securities are defined as securities issued by Fannie Mae, Freddie Mac and Ginnie Mae. This category includes agency CMBS and RMBS.
Source: 2020 ECMI Statistical Package.

3. Exchange-traded derivatives (ETD) market

Exchange-traded interest rate (IR) derivatives are the most traded among the ETDs, with volumes that are significantly higher than other asset classes (e.g. equity, foreign exchange and commodity). In 2019, the annual turnover of IR ETDs reached an all-time-high of €2.0 trillion (+7.8% compared with 2018). Most of the turnover (76.2%) took place in exchanges located in North America, and to a lesser extent Europe (21.0%) (see Figure 10). The turnover of the North American and European exchanges was similar up to 2013, while afterwards the turnover in North America surged strongly (+150%), and the turnover in Europe declined (-19.7%). The total number of contracts decreased 2.2% to 3.6 billion.

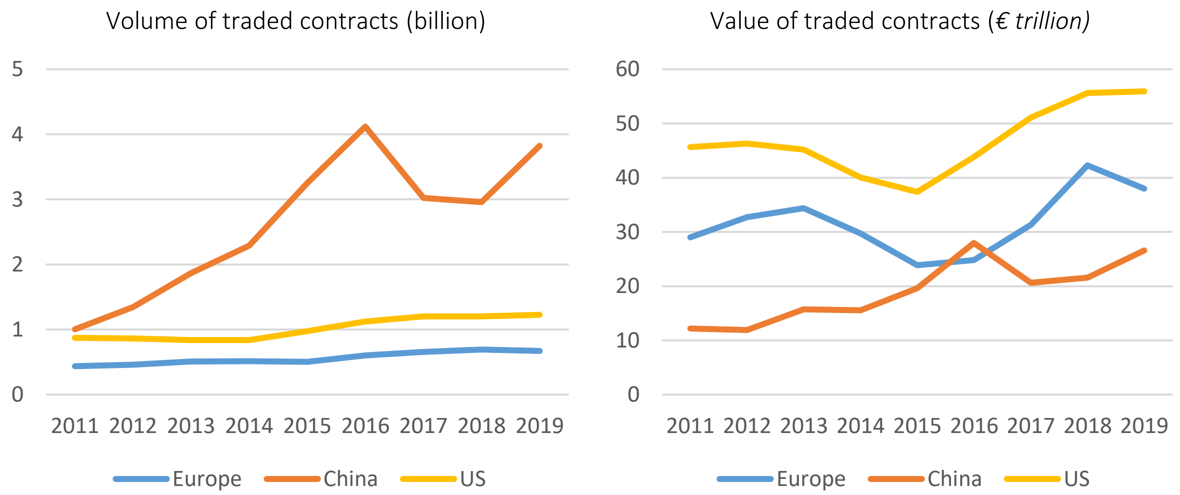
Figure 10. Turnover of interest rate ETDs by location of exchange (€ trillion, 2000-19)



Notes: Data refer to yearly total turnover of futures and options. Europe includes the following exchanges: Eurex, ICE Futures Europe, LSE CurveGlobal, NYSE Liffe London, Optionsmarknaden 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 and Clearing, Korea Exchange, National Stock Exchange of India, Osaka Exchange, Singapore Exchange Derivatives Trading, Sydney Futures Exchange, Tokyo International Finance Futures Exchange.
Source: 2020 ECMI Statistical Package.

Shifting the analysis to the exchange-traded commodity derivatives (one of the oldest derivative classes), in 2019 the number of traded contracts increased 17.9% to 5.7 billion (see Figure 11, left-hand panel). The vast majority of these contracts (66.8%) were traded in China, followed by the US (21.4%). The trading volume of ETD commodities increased 0.9% to €120.5 trillion in 2019 (see Figure 11, right-hand panel). The most actively traded contracts with commodities as underlying were futures, which accounted for 94.1% of the traded volume.

Figure 11. Volume and traded value of commodity-ETDs contracts by location of exchange (2011-19)

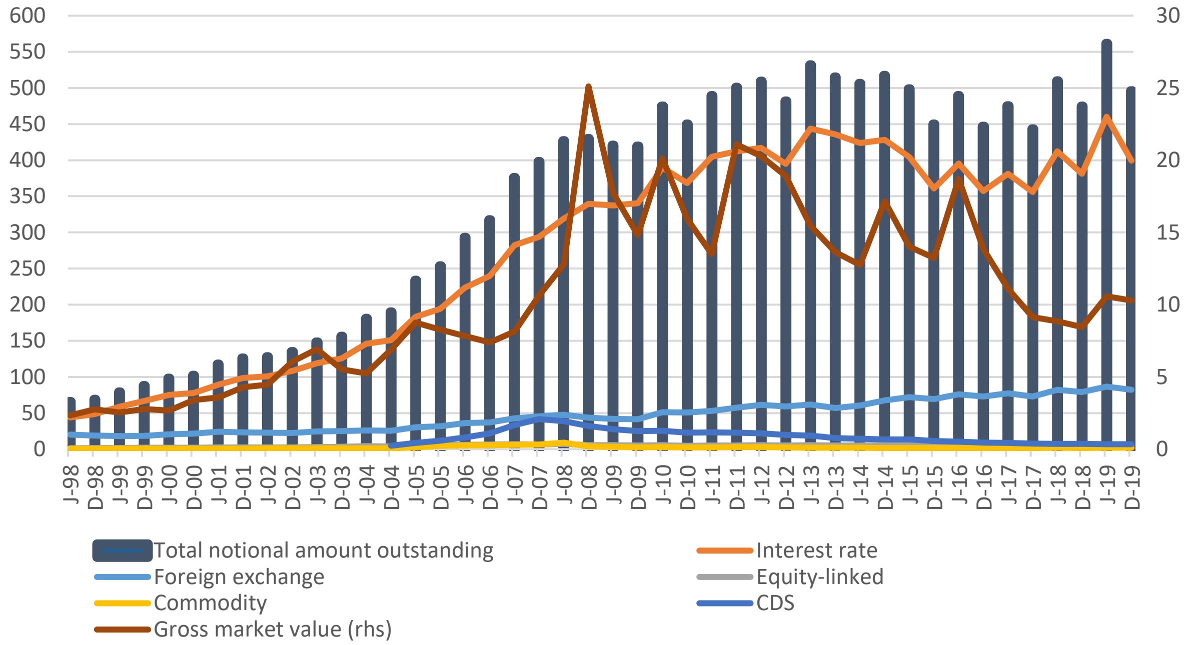


Notes: Data refer to yearly total turnover of futures and options. Europe includes the following exchanges: Borsa Italiana, Eurex, Euronext, Budapest SE, ICE Futures Europe, London Metal Exchange, and London SE Group. China includes the following exchanges: Dalian Commodity Exchange, Hong Kong Exchanges, Shanghai Futures Exchange, and Zhengzhou Commodity Exchange. The US includes the following exchanges: CME Group, and ICE Futures US.
Source: 2020 ECMI Statistical Package.

4. Over-the-counter (OTC) derivatives market

In 2019 the OTC derivatives market expanded 4.5% to €496 trillion in notional outstanding amount (see Figure 12).[5] IRDS dominated the market (80.5%), with a substantial minority (16.5%) in currency, and the remaining 3.0% in equity, credit and commodities. The gross market value of these derivative contracts increased (+22.6%) to €10.3 trillion in December 2019. This is still only two fifths of the 2008 level (€25.1 trillion). The gross market value has dropped significantly over the past few years, close to pre-crisis levels, reflecting the implementations of the G20 commitments regarding reporting, central clearing, collateral and margining, capital, and trading (Lannoo and Thomadakis, 2020). The gross market value represents 2.1% of the notional amount.

Figure 12. Notional amounts outstanding of global OTC derivatives market (€ trillion, 1998-2019)

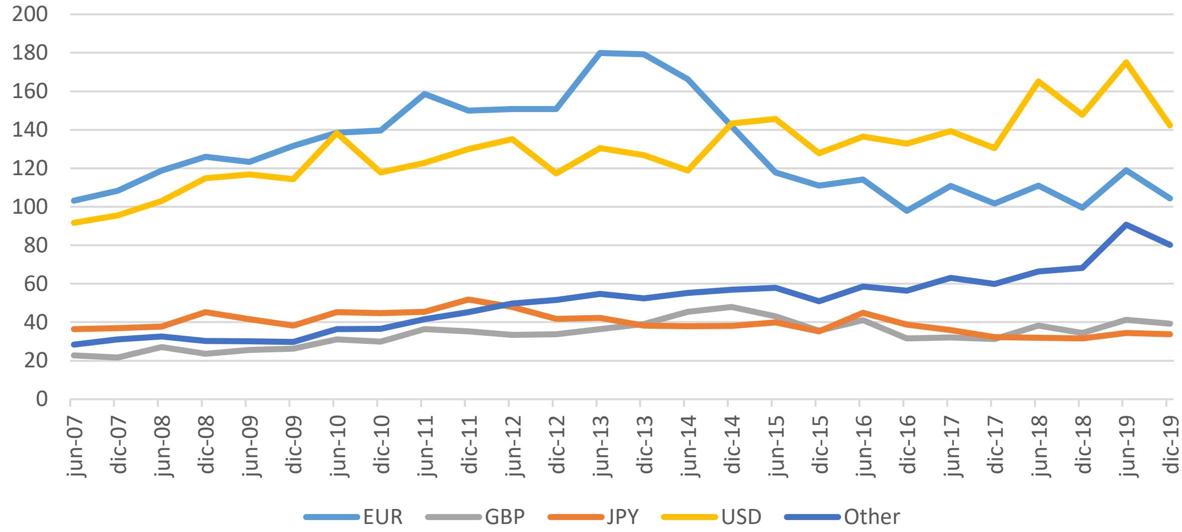


Notes: The notional amount of outstanding OTC derivatives contracts determines contractual payments and is an indicator of activity in OTC derivatives markets. The gross market value represents the maximum loss that market participants would incur if all counterparties failed to meet their contractual payments and the contracts could be replaced at current market prices. The values are presented for June (J) and December (D).
Source: 2020 ECMI Statistical Package.

Looking at the currency composition of IRDs, notional amounts outstanding of euro-denominated contracts increased (+4.7%) to €104 trillion in 2019 (see Figure 13). However, since 2013, when euro contracts peaked at €180 trillion and represented 41.1% of all outstanding contracts, they have fallen significantly both in absolute (-42.0%) and relative terms (representing 26.1% of the market at end-2019). Since 2015 the US dollar is the most preferred currency for IRDs, with dollar-denominated contracts representing 35.6% of all contracts ultimo 2019.[6]

[5] Notional amount outstanding refers to the notional value of all derivatives contracts concluded and not yet settled.
[6] For the factors that contribute to this development, see BIS (2016a), BIS (2016b), Thomadakis (2018a), Tadi and Thomadakis (2019).

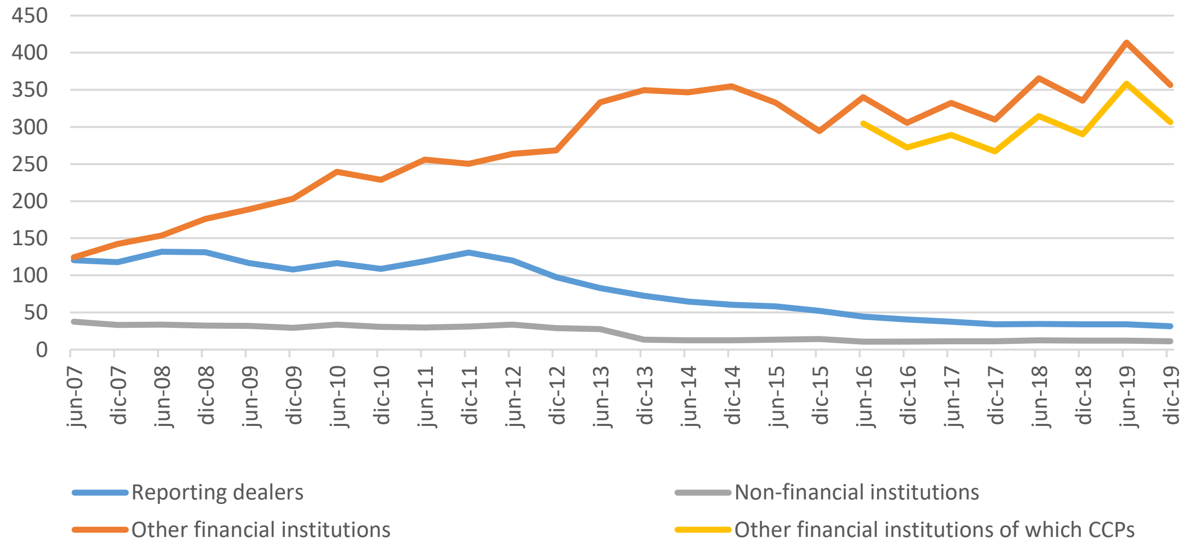
Figure 13. Notional amount outstanding of OTC IRD, by currency (€ trillion, 2007-19)



Note: 'Other' refers to contracts denominated in currencies other than EUR, GBP, JPY, and USD.
Source: 2020 ECMI Statistical Package.

IRD positions held with CCPs further expanded (+5.6%) during 2019, and the notional amounts outstanding reached €306.2 trillion by year end (see Figure 14). The trend in credit default swaps (CDS) was similar, for which the share with CCPs slightly increased (+1.3 percentage points) to 55.9% by December 2019. Trade compression, which allows the combining and offsetting of trades with compatible economic characteristics and thus results in a reduction of market values, has also contributed towards this development (BIS, 2019).[7]

Figure 14. Notional amount outstanding of OTC IRD, by sector of counterparty (€ trillion, 2007-19)

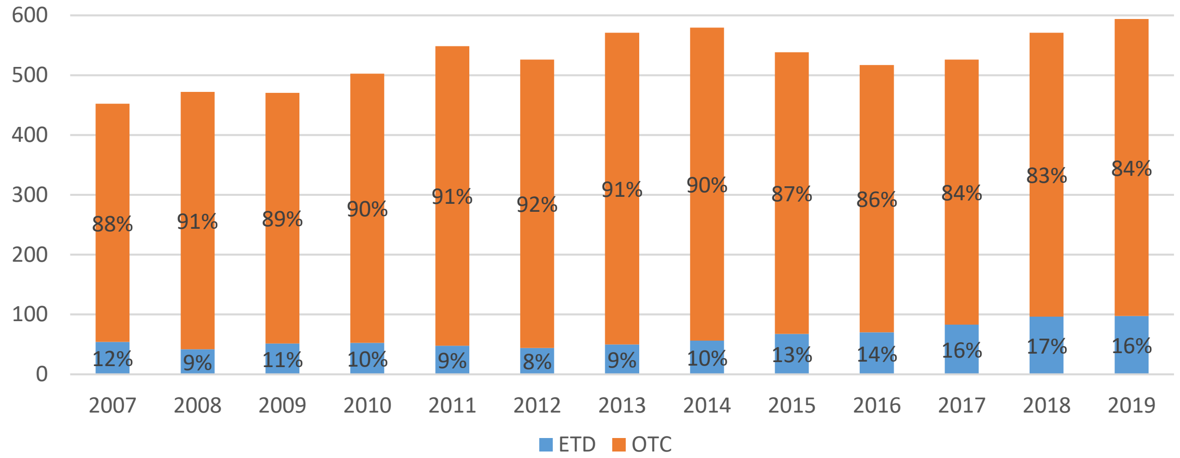


Notes: For the first time, in June 2016, BIS captured comprehensive data on positions with CCPs. Whereas in previous years details about financial counterparties were collected only for CDS, at end-June 2016 CCPS were separately identified for all types of OTC derivatives. Previously, CCPs were grouped indistinguishably with all financial institutions other than dealers.
Source: 2020 ECMI Statistical Package.

[7] Other factors, such as settle-to-market practices, also contributed to this.

In comparison with ETD contracts, OTC contracts accounted for 83.5% of the notional amount at December 2019 (see Figure 15). Nevertheless, the share of ETDS has increased significantly in the past decade, from 10.9% in 2009 to 16.5% in 2019. The steady increase of standardised ETDs is an important indicator of transparency, standardisation and liquidity in derivatives markets (ESMA, 2020).

Figure 15. Notional amount outstanding of ETD and OTC derivatives (€ trillion, 2007-19)

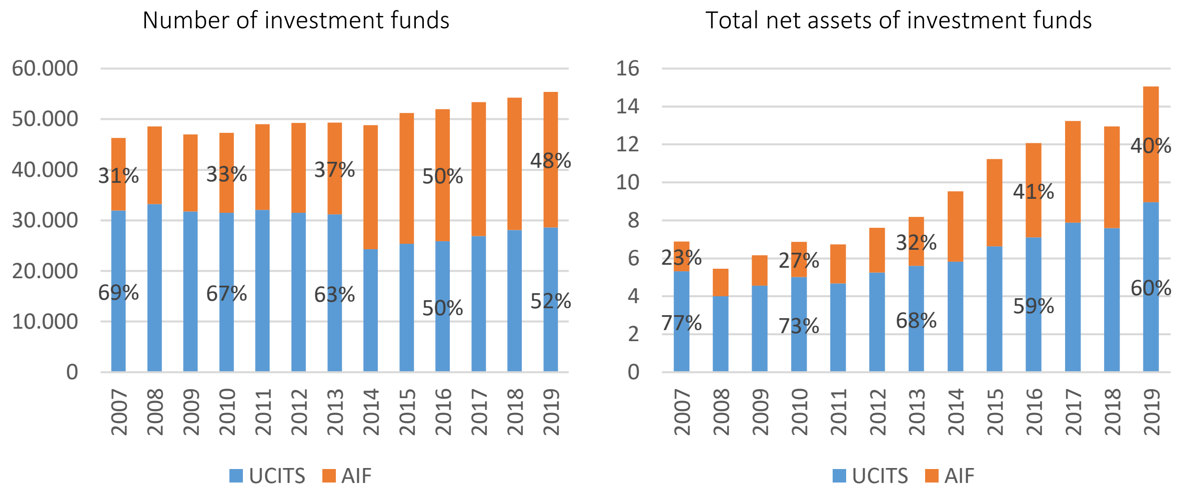


Source: 2020 ECMI Statistical Package.

5. Investment funds

During 2019 the EU investment fund industry further expanded. The number of investment funds continued increasing (+2.1%) to 55,393, while the total net assets increased (+16.3%) to €15.1 trillion (see Figure 16). Net assets of UCITS recorded a significant increase (+18.0%) to €8.9 trillion, while those of Alternative Investment Funds (AIF) rose (+13.9%) to €6.1 trillion. In relative terms, the net assets of investment fund managers increased from 93.6% of GDP in 2018 to 105.5% of GDP.

Figure 16. Number and total net assets of European investment funds (€ trillion, 2007-19)



Note: Data refer to EU-27.
Source: 2020 ECMI Statistical Package.

Most of the funds (73.7%) and net assets (82.3%) were domiciled in France, Germany, Ireland, Luxembourg and the UK (see Table 1). Net assets of UCITS grew in all countries except Hungary, with

Cyprus (+80.3%), Portugal (+39.3%) and Greece (+33.7%) having the largest UCITS net asset growth in 2019. In the AIF market, the strongest growth was recorded in Malta (+36.1%), Cyprus (+27.4%) and the Czech Republic (+26.7%).

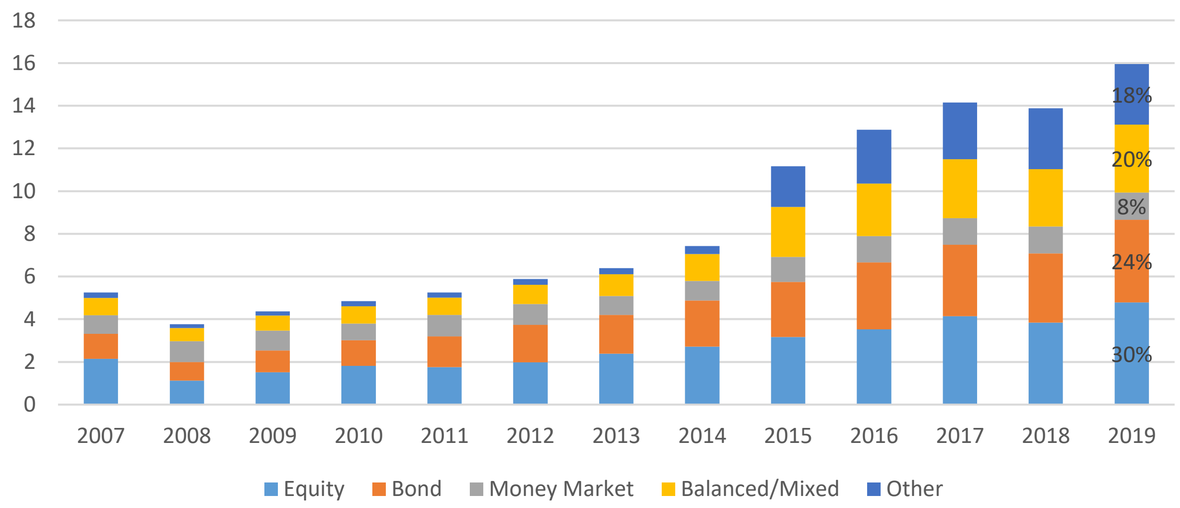
Table 1. Investment funds industry, by country of domicile (€ trillion, end-2019)

	# of UCITS	# of AIF	Net Assets € bn	% Δ in 2019[1]
Luxemburg	10,364	4,444	4,719	16.1%
Ireland	4,684	2,962	3,048	25.9%
Germany	2,329	4,468	2,358	15.7%
France	3,024	7,791	1,956	7.9%
United Kingdom	2,296	1,011	1,751	17.3%
Other	8,221	7,206	2,970	13.9%
EU28	30,918	27,782	16,803	16.4%

Notes: The countries are presented in terms of net assets (UCITS and AIF),[1] end-2019 compared with end-2018.
Source: 2020 ECMI Statistical Package.

Regarding the different types of investment funds, assets of equity (30.0%) and bond funds (24.2%) represented the largest share of net assets at the end of 2019 (see Figure 17). The money market funds (8.1%), and asset share of balanced/mixed funds (19.9%), also represent a substantial part of the net assets value. The remaining funds contain real estate and infrastructure, hedge funds, structured products, and private equity funds. The share of other funds in terms of net assets increased from 4.9% in 2014 to 17.8% in 2019.

Figure 17. Net assets of investment funds by type, in EU-28 (€ trillion, 2007-19)



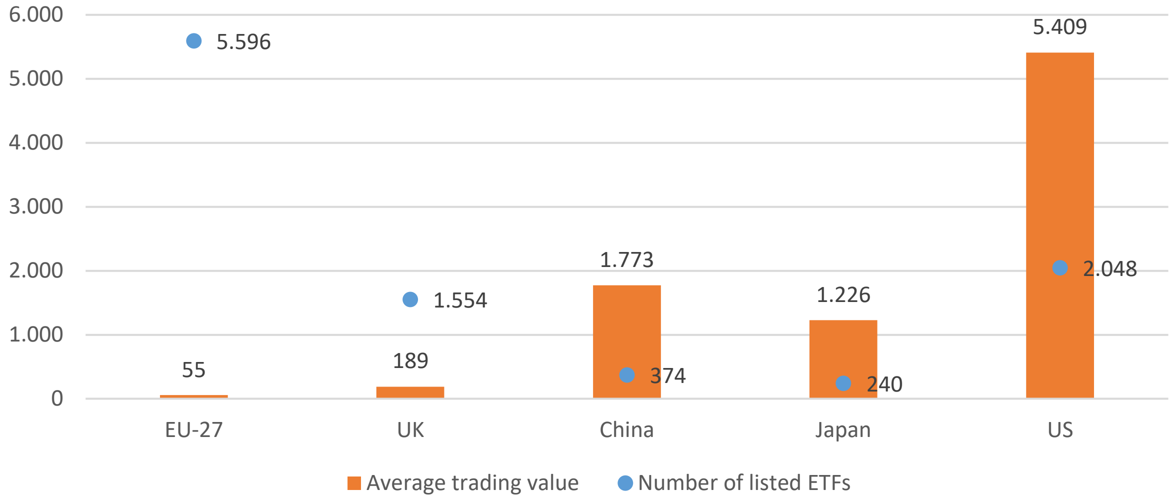
Source: 2020 ECMI Statistical Package.

Focusing on the ETF market, the number of listed ETFs in the EU-27 continued to increase in 2019. The number of listed ETFs increased (+7.7%), reaching an all-time high of 5,596.[8] A similar trend followed in China (+24.3%) and the US (+6.9%), while in the UK the number of listed ETFs declined (-4.1%). The total traded value of ETFs declined significantly across all major economies (-11.9% in the EU-27, -0.7% in

[8] Around 80% of the European ETFs are concentrated in four exchanges (Börse Stuttgart, Deutsche Börse, Borsa Italiana, and Euronext Paris).

China, -30.1% in Japan and -23.7% in the US), except for the UK (+4.9%). As a result, the average turnover of an ETF in the EU-27 was €55 million, €189 million in the UK and €5.4 billion in the US (see Figure 18).[9]

Figure 18. Average trading value (€ million) and number (thousands) of listed ETFs (end-2019)



Source: 2020 ECMI Statistical Package.

[9] For the reasons for the disparity between the EU and the US, see Thomadakis (2018b).

References

BIS (2016a), “Uneasy calm gives way to turbulence”, *BIS Quarterly Review*, March, Bank for International Settlements.

BIS (2016b), “The changing shape of interest rate derivatives markets”, *BIS Quarterly Review*, December, Bank for International Settlements.

BIS (2019), “Statistic release: OTC derivatives statistics at end-December 2018”, May, Bank for International Settlements.

ECB (2019), “The September Policy Package”, prepared by Schumacher, J. and I. Van Robays, Economic Bulletin, Issue 6, European central Bank.

ESMA (2020), “ESMA Annual Statistical Report on EU Derivatives Markets”, 16 November, European Securities and Markets Authority.

Lannoo, K. and A. Thomadakis (2020), “Derivatives in Sustainable Finance”, CEPS-ECMI Study, Centre for European Policy Studies.

PwC (2020), “IPO Watch Europe 2019”, PwC.

Tadi, S. and A. Thomadakis (2019), “2019 ECMI Statistical Package: Key findings”, ECMI Research Report, No. 15, December, European Capital Markets Institute.

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.

Annex

Methodology and data sources 2020 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 individual trading venues
- Section 2: BIS, ECB, ECBC, AFME, WFE, FESE and individual trading venues
- Section 3: BIS, WFE, FESE and individual 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.

For more information and to obtain the ECMI Statistical Package 2020, please visit

https://www.ecmi.eu/statistical-packages

European Capital Markets Institute

ECMI conducts in-depth research that aims to inform 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, policymakers and business representatives across Europe.