

Equity Primary Markets and Trading Report

European market data update

Q1: 2017



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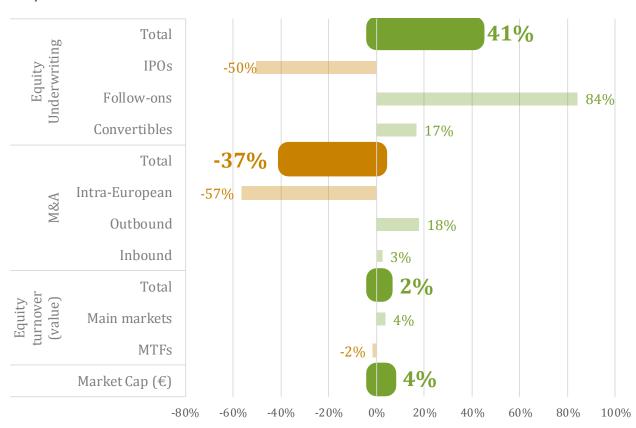
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Updated statistics on equity primary markets and trading in Europe (EU 28 member countries and Switzerland)

Main findings:

- **Equity underwriting** on European exchanges accumulated a total of €56.9 bn in proceeds in 1Q 2017, a 41% increase from the value originated in 4Q 2016 (€40.4 bn). Equity underwriting encompasses Initial Public Offerings (IPOs), convertible securities and follow-on offerings.
- Completed Mergers and Acquisitions (M&A) of European companies¹ totalled €193.2 bn in 1Q 2017, a decrease of 36.8% from the value completed in 4Q 2016 (€ 305.7 bn).
- **Equity trading activity** on European main markets and MTFs generated a total of €2.93 in turnover value in 1Q 2017, a slight increase of 2.5% from the value traded in 4Q 2016 (€ 2.85 tn).
- **Market capitalisation** of European listed shares² stood at € 12.6 tn at the end of 1Q 2017, an increase of 3.8% from the market value at the end of 2016 (€12.1 tn).

Quarter-on-quarter variation of European Equity activity (EU 28 member countries and Switzerland)



Source: Dealogic, Bats Chi-X, FESE, World Federation of Exchanges, LSEG, ECB, NASDAQ Nordic, Bucharest Stock Exchange and CEESEG - Prague

Underwriting and M&A data retrieved for this report on 20 April 2017

¹ Completed M&A between European firms as acquiring or target companies

² Domestic market capitalisation of listed shares on European exchanges (EU28 member states and Switzerland).

European Equity activity

(EU 28 and Switzerland)

| | 1Q 17 | 2Q 17 | 3Q 17 | 4Q 17 | 2017 FY | 1Q 16 | 2Q 16 | 3Q 16 | 4Q 16 | 2016 FY |
|--|-------|-------|-------|-------|---------|-------|-------|-------|-------|---------|
| Equity underwriting (€ bn) | 56.9 | | | | 56.9 | 28.7 | 50.9 | 26.9 | 40.4 | 146.9 |
| IPOs | 4.9 | | | | 4.9 | 3.7 | 11.6 | 4.0 | 9.8 | 29.0 |
| Follow-on offerings | 44.6 | | | | 44.6 | 17.3 | 33.6 | 19.2 | 24.3 | 94.4 |
| Convertible securities | 7.4 | | | | 7.4 | 7.7 | 5.7 | 3.8 | 6.3 | 23.5 |
| Mergers and Acquisitions (€ bn) | 193.2 | | | | 193.2 | 286.6 | 233.5 | 201.1 | 305.7 | 1,026.8 |
| European firms acquiring non-European firms | 37.4 | | | | 37.4 | 52.9 | 94.5 | 31.2 | 31.7 | 210.3 |
| Non-European firms acquiring European firms | 63.7 | | | | 63.7 | 64.4 | 69.2 | 79.6 | 62.1 | 275.2 |
| Intra European deals | 92.1 | | | | 92.1 | 169.3 | 69.7 | 90.3 | 211.9 | 541.2 |
| Equity turnover value (€ tn) | 2.93 | | | | 2.9 | 3.3 | 3.0 | 2.6 | 2.85 | 11.8 |
| Main Markets | 2.27 | | | | 2.3 | 2.57 | 2.29 | 1.96 | 2.19 | 9.0 |
| MTFs | 0.65 | | | | 0.7 | 0.76 | 0.75 | 0.66 | 0.66 | 2.8 |
| Market Capitalisation of domestic listed shares (€ tn) | | | | | | | | | | |
| European (EU28 and Switzerland) | 12.6 | | | | 12.6 | 11.4 | 11.1 | 11.6 | 12.1 | 12.1 |
| EU 28 | 11.2 | | | | 11.2 | 10.1 | 9.8 | 10.3 | 10.8 | 10.8 |
| Euro Zone | 7.2 | | | | 7.2 | 6.4 | 6.2 | 6.6 | 7.0 | 7.0 |

| % Change YoY | % Change QoQ |
|--------------|-----------------|
| 98.4% | 41.0% |
| 31.9% | -50.2% |
| 157.4% | 84.1% |
| -3.3% | 16.7% |
| -32.6% | -36.8% |
| -29.3% | 17.8% |
| -1.1% | 2.6% |
| -45.6% | -56.5% |
| -12.1% | 2.5% |
| -11.5% | 3.8% |
| -14.1% | -1.8% |
| | |
| 10.7% | 3.8% |
| 10.4% | 3.5% |
| 12.1% | 2.4% |

Source: Dealogic, Bats Chi-X, FESE, World Federation of Exchanges, LSEG, ECB, NASDAQ Nordic and Baltic, Bucharest Stock Exchange and CEESEG-Prague

Detailed findings and commentary

Detailed findings

Issuance: equity underwriting and IPOs

Equity underwriting on European exchanges totalled €56.9bn in proceeds in 1Q 2017, an increase of 41% QoQ and an increase of 98.4% compared to 1Q 2016.

The increase was largely driven by an 84% QoQ growth in secondary (follow-on) offerings and an increase of 16% QoQ in proceeds from the issuance of convertible securities. However, proceeds from Initial Public Offerings (IPOs) declined 50.2% QoQ, although grew 31.9% against the same quarter of last year.

By exchanges, Borsa Italiana led by total issuance activity with \in 14.6bn in equity raised during the quarter, followed by Euronext (\in 11.7bn) and the LSE main market (\in 11.1bn). The LSE main market led by equity raised through IPOs (\in 2bn), followed by Spanish exchanges BME (\in 1.5bn).

Of the €56.9bn in equity raised during the quarter, 5% was originated on junior markets accumulating a total €3.0bn in proceeds. Junior markets are equity markets directed towards small and mid-caps with less onerous requirements and fees. The amount of equity capital raised on junior markets represented a growth of 14.5% from €2.6bn in 4Q16 and 37.8% from €2.1bn in 1Q16.

By exchanges, NASDAQ First North led by amount of equity raised on junior exchanges with a total of \in 1.2bn, followed by the LSE AIM (\in 1.2bn) and Alternext (\in 0.4bn).

Junior exchanges represented 14.5% of the total capital raised through IPOs during the quarter with a total of €705mn, 37.8% above the volume of 4Q16. The proportion of IPOs on junior exchange to total IPOs compares with a ratio of 8% in 2016 and 3% in 2015. See middle chart on left panel.

The annual increase in IPO issuance on junior markets, although encouraging, continues below the volumes observed in pre-crisis of, for example, €3.1bn raised in 1006. See bottom chart on left panel.

By type of companies, $\[\in \]$ 299mn or 42% of the issued amount through IPOs on junior exchanges was raised by healthcare companies, followed by finance companies ($\[\in \]$ 148mn) and Auto/Truck companies ($\[\in \]$ 69mn). See further details on section 1 of the report.

European equity trading

A total of €2.93tn in equity shares were traded on European venues in 1Q 2017, an increase of 3.8% from €12.1tn in 4Q 2016 and an increase of 10.7% from €11.4tn in 1Q16.

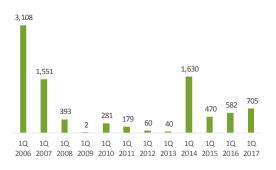
Trading by type of order book: Dark trading represented 9.1% of total equity turnover on main markets and MTFs in

"Equity underwriting on European exchanges totalled €56.9bn in proceeds in 1Q 2017, an increase of 41% QoQ and an increase of 98.4% compared to 1Q 2016"

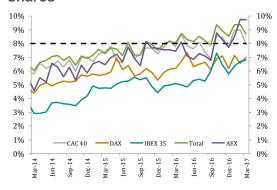
IPO issuance on Jr exchanges relative to total IPO issuance on European exchanges



IPO proceeds on Jr exchanges: EURmn



% of dark trading of selected indexed shares



Source: BATS Global Markets

"The quarterly decrease in M&A was driven by a decline in the total value of intra-European transactions"

Cross-border and intra-European M&A transactions (Quarter-onquarter % increase in deal value)



Source: Dealogic

1Q17. This proportion has continued to grow from c8% of total equity turnover in 1016 and c7.2% in 1016.

By markets, the proportion of dark trading of FTSE 250 and FTSE 100 indexed companies has stabilised at c15% and c10% respectively since 2014 (see section 3 of the report). In other markets such as for companies indexed on AEX, DAX, CAC40 or IBEX35, the proportion of dark trading relative to total turnover has continued to grow over the last years, including during the most recent quarter for AEX and CAC40 indexed companies. See graph on top left panel.

Mergers and Acquisitions (M&A) in Europe

In 1Q 2017, a total of 2970 M&A deals were completed where either the target or the acquiring company were located in Europe. The volume represented a total of €193.2bn in deal value³, a decrease of 37% from 4016 (€305.7 bn) and a decrease of 32.6% from 1Q16 (€286.6bn).

The quarterly decrease in M&A was driven by a decline in the total value of intra-European (between European **countries) transactions**, accumulating a total of €92.1bn in completed deals in the quarter. The volume is substantially below the amount completed in 4Q16 (€211.9bn) and in 1Q16 (€169.3bn). The decrease in total deal value was notwithstanding an increase of 6.2%QoQ in the number of completed deals.

Growing participation of Private Equity (PE) firms in **M&A activity.** "Sponsor" deals, i.e. where the acquisition or sale is carried out directly by a PE company, increased by 22%0o0 and 106% YoY, representing 37% of the total deal value in 1017. This contrasts with a participation of 20% in 1Q16 and 11.4% in 4Q16 when M&A "strategic" deals (between two non-PE firms) contributed to a larger proportion of total M&A activity. The value of completed strategic deals decreased by 54%QoQ and 47%YoY during the quarter.

The volume of withdrawn M&A deals increased to €312bn during the quarter, representing 58% of the total withdrawn volume of 2016. The increase, however, was largely driven by the withdrawal of Kraft Heinz's bid for Unilever in a mega-deal of a total estimated value of \$143bn.

Subdued announced volume in 2016. The volume of announced transactions during the quarter decreased by 61% against the volume announced in the same quarter of 2016. This continues the decline of 44% in announced M&A transactions in 2016FY, which, with an estimated of c99 days to complete a deal after the date of announcement (see section 2 of the report), would indicate a subdued M&A activity for the upcoming quarters.

³ Including debt.

Major upcoming regulatory, legislative and policy initiatives

There are several regulatory changes that are currently being considered or implemented at the European and national level with expected impact on the equities trading and capital markets performance. Key developments include:

- MiFID II/R
- Market Abuse Directive/Regulation (MAD/MAR)
- FCA's Wholesale competition review
- Basel III
- CSDR
- Prospectus Regulation
- Brexit

AFME and its members are actively contributing on all of these and other regulatory changes.

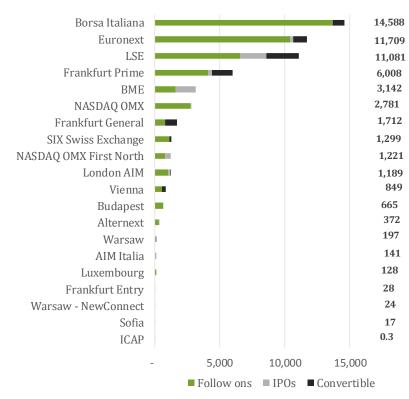
1 Issuance

1.1 Equity issuance on European exchanges (EUR bn)



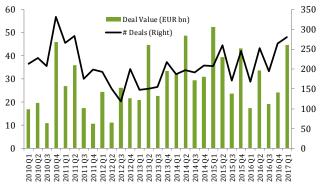
The increase of 98.4% YoY in equity issuance was largely driven by an increase of 157.4% YoY in follow on offerings

1.2 Equity issuance by listing market: 1Q 2017 (EUR mn)

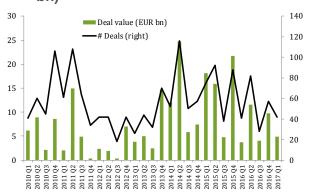




1.3 Follow on proceeds and number of deals (EUR bn)



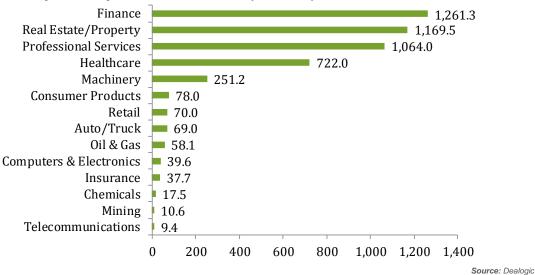
1.4 IPOs proceeds and number of deals (EUR bn)



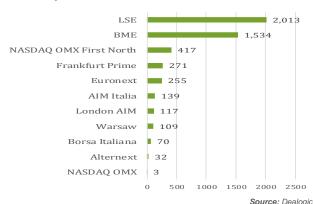
Source: Dealogic Source: Dealogic

The LSE main market led by IPO proceeds in 1Q17 with a total of €2.0bn in raised capital

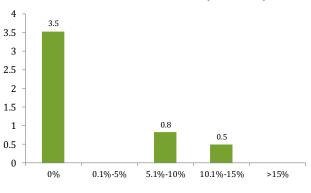
1.5 IPO proceeds by industry of issuer: 1Q 2017 (EUR mn)



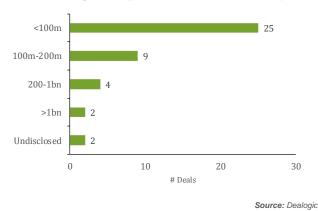
1.6 IPO proceeds by listing market (EUR mn): 1Q 2017



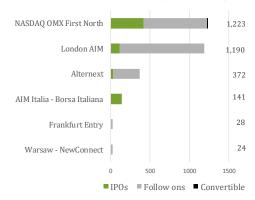
1.7 IPO proceeds by proportion of exercised overallotment (EUR bn)



1.8 Number of IPOs by market value of issuing firm (pre-deal market value)



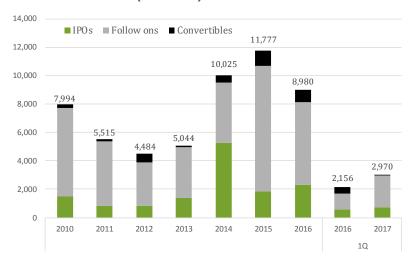
1.9 Equity issuance on European Jr markets: 1Q 2017 (EUR mn)



Source: Dealogic

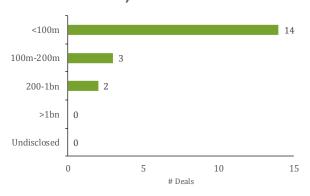
Equity raised on junior markets totalled €2.97bn in 1Q17, an increase of 37.8% from the volume issued in 1Q16

1.10 Equity issuance on Jr markets (EUR mn)



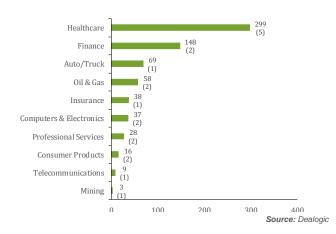
Source: Dealogic

1.11 Number of IPOs on Jr markets by market value of issuing firm (pre-deal market value)



Source: Dealogic

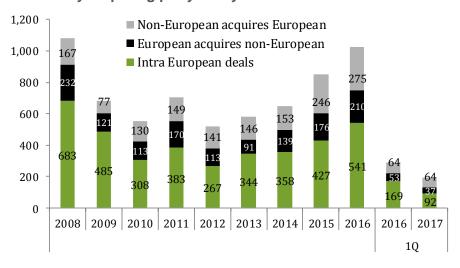
1.12 IPOs on Jr markets by industry of issuer (EUR mn): 1Q17



2 Mergers and Acquisitions

Deals where the target or the acquiring company is located in Europe € BILLIONS

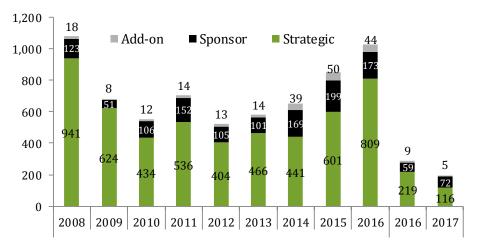
2.1 Completed M&A by acquiring party: full-year and YtD



Source: Dealogic

M&A decreased 32.6% YoY, driven by a 45.6%YoY decrease in intra-European deals and -47%YoY in strategic deals

2.2 Completed M&A by type of deal: full-year and YtD



Source: Dealogic

2.3 Deal value of completed European M&A deals (€ bn)

| | | | | | | | , | | | |
|---|---------|---------|---------|---------|-------|---------|---------|---------|---------|---------|
| | Q1 2017 | Q2 2017 | Q3 2017 | Q4 2017 | 2017 | Q1 2016 | Q2 2016 | Q3 2016 | Q4 2016 | 2016 |
| Strategic | 116.2 | | | | 116.2 | 219.3 | 184.9 | 152.6 | 252.4 | 809.2 |
| Sponsor | 71.6 | | | | 71.6 | 58.7 | 41.5 | 38.3 | 34.8 | 173.3 |
| Add-on | 5.4 | | | | 5.4 | 8.5 | 7.1 | 10.3 | 18.5 | 44.3 |
| TOTAL | 193.2 | | | | 193.2 | 286.6 | 233.5 | 201.1 | 305.7 | 1,026.8 |
| European firms acquiring non-European firms | 37.4 | | | | 37.4 | 52.9 | 94.5 | 31.2 | 31.7 | 210.3 |
| Non-European firms acquiring European firms | 63.7 | | | | 63.7 | 64.4 | 69.2 | 79.6 | 62.1 | 275.2 |
| Intra Europe deals | 92.1 | | | | 92.1 | 169.3 | 69.7 | 90.3 | 211.9 | 541.2 |
| TOTAL | 193.2 | | | | 193.2 | 286.6 | 233.5 | 201.1 | 305.7 | 1,026.8 |

| QoQ growth (%) | YtD growth (%) |
|----------------|----------------|
| -54% | -47% |
| 106% | 22% |
| -71% | -37% |
| -37% | -33% |
| 18% | -29% |
| 3% | -1% |
| -57% | -46% |
| -37% | -33% |

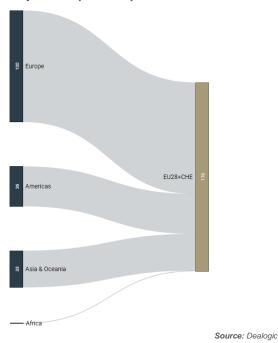
€ BILLIONS



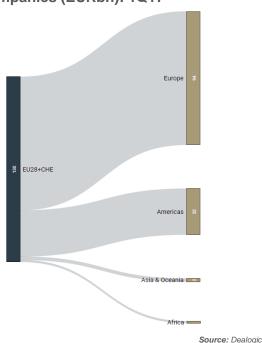


21% of the acquisitions of European firms were done by American firms, 19% by Asia and Oceania companies and 59% by European firms.

2.6 Location of firms acquiring European companies (EURbn): 1Q17



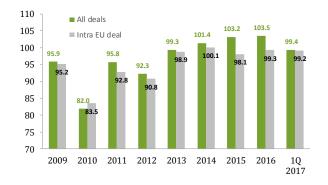
2.7 Location of firms acquired by European companies (EURbn): 1Q17



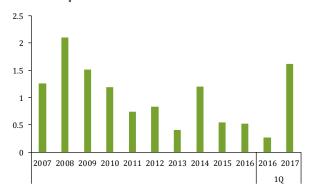
⁴ Announced deals include completed, pending completion or partially completed transactions. Values are presented at date of announcement.

⁵ Bids which were officially announced and subsequently withdrawn, not pursued, rejected or expired.

2.8 Average days to complete M&A



2.9 Index: Volume of withdrawn relative to completed M&A



Source: Dealogic Source: Dealogic

For the M&A deals completed in 1Q17, it took an average of 99 days to complete since the date of announcement

2.10 Completed M&A by industry of target firm (EUR bn): 1Q 2017



2.11 Completed intra-European M&A transactions by location of acquiring and target company (1Q 2017, EUR mn)

| | | | | | | | | | | | | | | T | arget | Natio | onali | ty | | | | | | | | | | | | | |
|----|---------------------------|-----|-------|-----|----|-----|--------|-----|----|-----|--------|--------|----|-------|-------|-------|-------|----|-----|-----|-------|--------------|-------|-----|----|----|--------|-------|-------|--------|--------------|
| | | AT | BE | BG | HR | CY | cz | DK | EE | FI | FR | DE | HE | HU | | п | | | LU | MT | NL | PL | PT | RO | SK | SI | ES | SE | CHE | UK | Total |
| Α | ustria | 241 | | | | | | 0 | | 0 | 0 | 0 | | 26 | | | | | | | | | | | | 0 | | | | | 267 |
| В | elgium | 0 | 1,083 | 112 | | | | | | | 0 | 20 | | | | 515 | | | | | 12 | | | | | | 0 | | | 258 | 2,000 |
| В | ulgaria | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 0 | 2 |
| С | roatia | | | | | | | | | | | | | | | | | | | | | | | | | 0 | | | | | 0 |
| С | yprus | | | | | 0 | | | | | | | | | | | | | | | | | | | | | 0 | | | | 0 |
| С | zech Republic | 0 | | | | | 4,387 | | | | | | | | | | | | | | | 0 | | | 0 | | | | | | 4,387 |
| D | enmark | | | | | | | 215 | | | | 0 | | | | 0 | | | | | | | | | | | | 0 | 836 | 0 | 1,051 |
| _ | stonia | | | | | | | | 6 | | | | | | | | | | | | | | | | | | | | | | 6 |
| F | inland | | | | | | | | | 147 | | 0 | | | | 0 | | | | | | | | | | | | 0 | | 0 | 147 |
| | rance | | 0 | | | | 0 | 0 | | 15 | 10,878 | 985 | | | 0 | 0 | | | 0 | | 64 | | | | | | 713 | | 213 | 0 | 12,867 |
| | ermany | 331 | 0 | | 7 | | - | 3 | - | 0 | 6 | 12,059 | | 650 | 0 | 0 | 0 | - | 0 | | 0 | 0 | 0 | 250 | | | 5,860 | 121 | 10 | 549 | 19,845 |
| G | reece | | - | | | 10 | | | - | - | | 0 | 20 | _ | | | | - | - | | | | | | | | | | - | - | 30 |
| Н | ungary | | | | | | | | | | | | | 602 | | | | | | | | | | | | | | | | - | 602 |
| Ir | eland | _ | | | | _ | - | 0 | | | | | | - | 115 | 4.00= | | | | | 0 | | 0 | | | | | | 0 | 34 | 149 |
| lt | aly | | | | | 0 | | 0 | | - | 0 | 1 | | | | 4,307 | | | | | 5 | 3 | 16 | | | | 116 | | | 84 | 4,532 |
| ᅡ | atvia | | | | | | | | - | 0 | | | | | | | 0 | | | | | | | | | | | | | | 0 |
| Ŀ | ithuania | _ | | | | | - | | 0 | 0 | - | 2 | | | | - | | | 400 | | - | | | | | | | | | | 2 |
| | uxembourg | _ | | | | | 0 | | | | 0 | 125 | | | | 0 | | | 133 | | 0 | | | | | | 0 | | | 0 | 258 |
| N | lalta | | | | | | | | | 75 | 0 | 0 | | | | - | | | | | 1,750 | 167 | 0 | - | | | 0 | 0 | | 0 | 0 |
| _ | etherlands | _ | 0 | | | | | | | 75 | | 23 | | | | 0 | | | | | 1,/50 | 167 3,844 | 0 | 0 | | | 0 | 0 | | 206 | 2,221 |
| _ | oland | _ | | | | | | | | | 0 | 0 | | | | | | | | | | 3,844 | 346 | | | | 69 | | | - | 3,844 415 |
| | ortugal | | | 0 | | | | | | | 0 | | | | | | | | | | | | 340 | 565 | | | 69 | | | - | 565 |
| | omania | | | 0 | 8 | | | | | | 0 | | | 11 | | | | | | | | | | 303 | 0 | | | | | - | 19 |
| | lovak Republic Iovenia | | | | 0 | | 1 | | | | | | | 11 | | | | | | | | | | | U | | 0 | | | - | 0 |
| _ | pain | | | | 0 | | | | | | 1,132 | 788 | 0 | | | 5 | | | | | 0 | | 668 | | | | 2,717 | | 0 | 96 | 5,406 |
| | weden | 0 | 12 | | | | 65 | 42 | 0 | 712 | 0 | 120 | - | | 0 | 57 | | | | 200 | 2 | | 0 | | | | 3 | 1,724 | 0 | 283 | 3,221 |
| _ | witzerland | 0 | 1 | | | | - 55 | 12 | 0 | 0 | 103 | 13 | | | - | 0 | | | | 200 | 30 | | 0 | | | | 34 | 1,721 | 164 | 41 | 385 |
| _ | nited Kingdom | 0 | 78 | | | 301 | | 8 | | | 103 | 126 | | 15 | 138 | 9 | | | | 0 | 569 | | " | 9 | | | 556 | 234 | 211 | 27,541 | 29,898 |
| | otal | 572 | 1,174 | 114 | 15 | 311 | 4,452 | 268 | 6 | 949 | 12,223 | 14,263 | 20 | 1,305 | 254 | 4,893 | 0 | | 133 | 200 | 2,431 | 4,013 | 1,030 | 824 | 0 | 0 | 10,068 | 2,079 | 1,433 | 29,093 | 92,120 |
| | otai - | 3/2 | 1,1/4 | 114 | 13 | 511 | 1, 132 | 200 | J | 717 | 12,223 | 11,203 | 20 | 1,303 | 234 | 1,073 | J | | 133 | 200 | 2,131 | 1,013 | 1,030 | OLT | U | 0 | 10,000 | 2,079 | 1,133 | 27,073 | 72,120 |

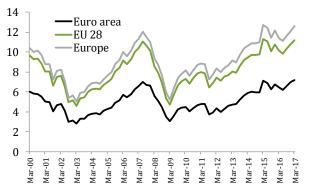
Source: Dealogic

2.12 Value of completed M&A transactions by size of deal (EUR bn)

| | Q1 2017 | Q2 2017 | Q3 2017 | Q4 2017 | 2017 | Q1 2016 | Q2 2016 | Q3 2016 | Q4 2016 | 2016 | QoQ change | YoY change |
|----------------|---------|---------|---------|---------|-------|---------|---------|---------|---------|---------|------------|------------|
| Over | 24.9 | | | | 24.9 | 90.7 | 92.0 | 40.9 | 140.7 | 364.4 | -82% | -73% |
| 1bn to 10bn | 89.6 | | | | 89.6 | 117.0 | 61.5 | 86.1 | 85.3 | 349.8 | 5% | -23% |
| 500m to 1bn | 29.3 | | | | 29.3 | 31.9 | 24.2 | 26.3 | 24.5 | 107.0 | 19% | -8% |
| 100m to 500m | 37.2 | | | | 37.2 | 35.4 | 41.8 | 36.0 | 42.7 | 156.0 | -13% | 5% |
| Less than 100m | 12.1 | | | | 12.1 | 11.5 | 13.9 | 11.9 | 12.5 | 49.7 | -3% | 5% |
| Total | 193.2 | | | | 193.2 | 286.6 | 233.5 | 201.1 | 305.7 | 1,026.8 | -37% | -33% |

3 Market capitalisation and trading

3.1 Domestic market capitalisation of listed shares (EUR Tn)



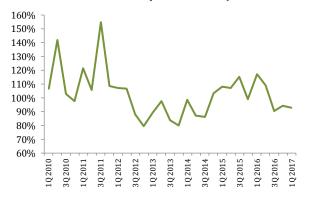
Source: ECB, Datastream, FESE, NASDAQ Nordic, LSEG, World Federation of Exchanges, Bucharest Stock Exchange and CEESEG – Prague

3.3 Number of companies listed on European exchanges⁶



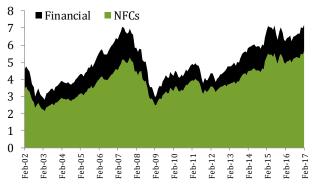
Source: ECB, Datastream, FESE, NASDAQ Nordic, LSEG, WFE, Bucharest Stock Exchange and CEESEG – Prague, Zagreb Stock Exchange

3.5 Turnover ratio of European shares: Dark and Lit (Annualised turnover value/Market capitalisation)



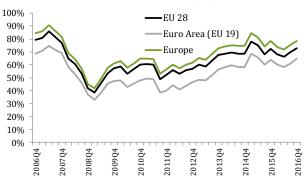
Source: BATS Global Markets, ECB, Datastream, FESE, NASDAQ Nordic, LSEG, WFE, Bucharest Stock Exchange and CEESEG - Prague

3.2 Market cap Euro area (EUR Tn)



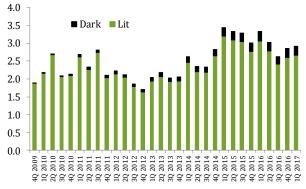
Source: ECB

3.4 Domestic market capitalisation of listed shares relative to GDP (%)⁷



Source: ECB, Datastream, FESE, NASDAQ Nordic, LSEG, WFE, Bucharest Stock Exchange, CEESEG – Prague, Swiss Federal Statistical Office and Eurostat

3.6 Quarterly turnover on European Exchanges and MTFs (EUR tn)



Source: Bats Global Markets

Continued decline in the number of listed companies

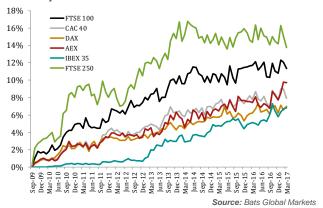
⁶ Excludes ES Collective Investment Instruments (SIVACS)

⁷ GDP available only as of 4Q16. Europe refers to EU28 member states and Switzerland.

Dark trading relative to total turnover 3.7 on Exchanges and MTFs (%)

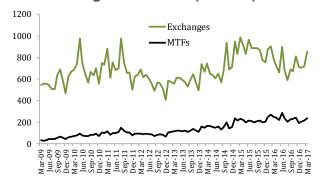


Dark trading of indexed shares as 3.8 proportion of total turnover (dark and lit)- selected indices



The proportion of dark trading of European listed companies has stabilised since 2014 for FTSE-indexed companies

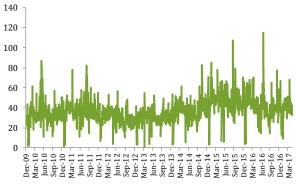
Monthly turnover value on European 3.9 exchanges and MTFs (EUR bn)8



Source: Bats Global Markets

Source: Bats Global Markets

3.10 Daily turnover value on European exchanges and MTFs (EUR bn)9



Source: Bats Global Markets

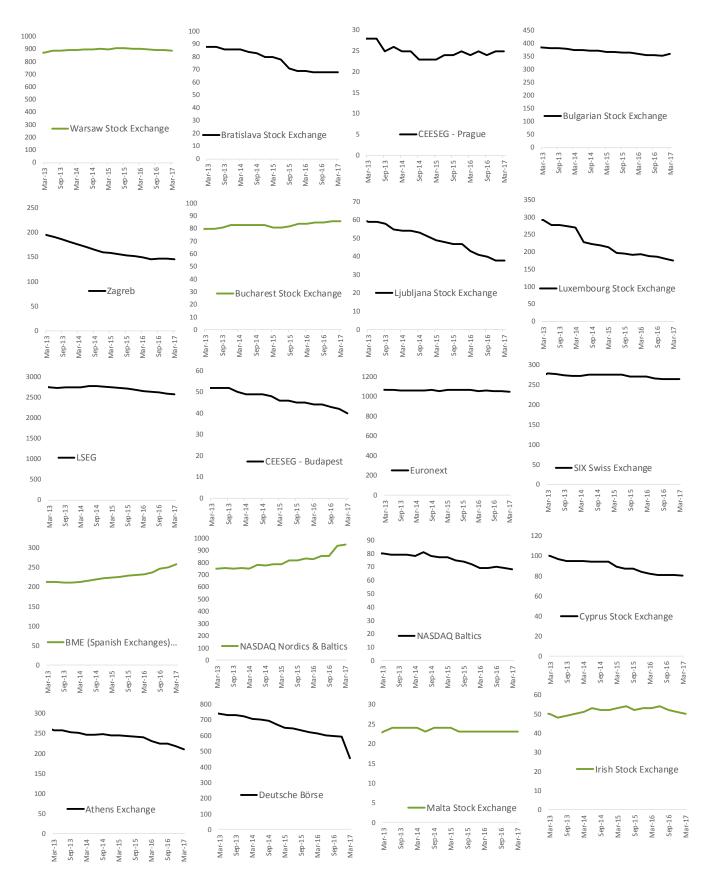
NX, NYSE Arca, Pipeline, Quote MTF, SIGMA X MTF, SLS, Smartpool, TOM MTF, Turquoise and UBS MTF.



⁸ Under MTFs, the following are aggregated: Aquis, BLINK MTF, Burgundy, Equiduct, ICAP BlockCross, Instinet Blockmatch, ITG Posit, Liquidnet, NEURO, Nomura NX, NYSE Arca, Pipeline, Quote MTF, SIGMA X MTF, SLS, Smartpool, TOM MTF, Turquoise and UBS MTF.

9 Under MTFs, the following are aggregated: Aquis, BLINK MTF, Burgundy, Equiduct, ICAP BlockCross, Instinet Blockmatch, ITG Posit, Liquidnet, NEURO, Nomura

3.11 Number of companies listed on European exchanges¹⁰

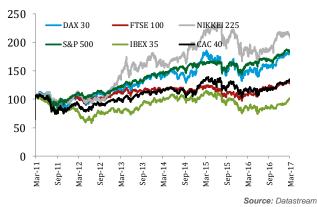


Source: FESE, NASDAQ Nordic, Nasdaq Baltic, LSEG, WFE, Bucharest Stock Exchange and CEESEG – Prague, Zagreb Stock Exchange, BME

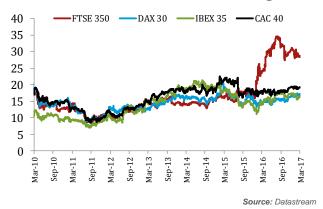
¹⁰ In Spain, includes open-end investment companies (3,298). As of Dec 2016, there were 130 listed companies in the Electronic Order Book (SIBE) and 39 on MAB.

4 Valuation indices and ratios

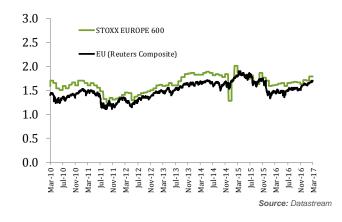
4.1 Price indices of selected stock exchanges (Mar 2011 = 100)



4.2 Price per earnings ratio (PE ratio) of shares listed on selected exchanges



4.3 Price-to-book ratio of Stoxx 600 constituent shares and EU average



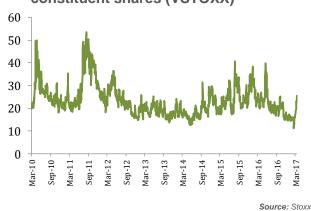
4.4 Dividend payout ratio of shares listed on selected exchanges (Dividends/Earnings per share)



4.5 Dividend yield ratio of shares listed on selected exchanges (Dividend/Price)



4.6 Implied volatility of Euro Stoxx 50 constituent shares (VSTOXX)



Summary of the Methodologies Adopted for this Report

1. Issuance

1.1. – 1.4. Equity underwriting

The graphs covering historical issuance in Europe are denominated in EUR billions.

Historical equity underwriting volumes are calculated by adding the proceeds from Initial Public Offerings (IPOs), Follow-On offerings and Convertible securities issued in exchanges located in the European Union (EU 28) + Switzerland.

The member countries of the European Union + Switzerland are maintained during the sample period. The group of countries include: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden the UK and Switzerland.

IPOs proceeds include overallotment proceeds (greenshoe), although the value of proceeds is disaggregated in the supporting data file.

IPOs exclude "introductions" (listings unaccompanied by a sale of securities) and readmissions.

Value and volume data are sourced from Dealogic. All figures comply with Dealogic's standards of rank eligibility.

1.5. -1.6, IPOs by exchange, nationality of the issuing company and industry of issuing company

Issuance values are denominated in nominal EUR billion. The figures illustrate the value of proceeds and number of deals of IPOs issued in European exchanges, aggregating by exchange, and industry of the issuing company.

The aggregated values include overallotment proceeds (greenshoe).

Data are sourced from Dealogic comply with Dealogic's standards of rank eligibility.

1.7 Overallotment proceeds

The graph shows the value of greenshoe investment in IPOs as proportion of aggregate proceeds in a given quarter. The proportion is aggregated on a weighted average basis.

All IPOs are taken into consideration for purposes of the chart, even the value of overallotment was not disclosed or if it was nil in a given deal.

Deals with undisclosed or nil overallotment are aggregated under 0% category.

1.8 IPO by market value of issuing firm

The graph shows the number of IPO deals by the pre-deal market value of the issuing firm. In few instances the market value was not disclosed or was not available; these cases were classified as "undisclosed".

1.9-1.12 Equity raised on junior markets

Number and total proceeds (including overallotment) of equity raised, including IPOs, on European junior markets. The exchanges aggregated include all where capital has been raised during the year (according to Dealogic data).

2. Mergers and Acquisitions (M&A) and Private Equity

2.1-2.3 Deals where the target or acquiring companies are located in Europe

The charts aggregate deal values of M&A transactions where European companies are either target or acquiring parties in the transaction.

Chart 2.1, 2.6-2.7. aggregates deal values by the location of the acquiring and target parties. Intra-European deals refer to completed deals where both the acquiring and target companies are located in Europe. "Non-European acquires European" aggregates M&A completed transactions where a company located outside Europe acquires a company located in Europe. "European acquires non-European firm" are M&A completed transactions where the acquiring party is European and the target company is located outside Europe.

Europe is defined as in section 1 (EU 28 + Switzerland).

Chart 2.2. aggregates deal values by type of deal: Sponsor, strategic and add-ons.

Sponsor deals represent M&A transactions where the acquisition or sale is carried out by a Private Equity (PE), but not by a portfolio company of a PE firm. Strategic mergers are deals where both the target and the acquired company are not PE firms. Add-on deals are transactions where either the acquirer or seller companies are portfolio companies of a PE firm. M&A include both financial and trade sales.

2.4. Announced M&A

This graph shows announced deal values (including debt) of completed, pending completion or partially completed deals, where the target

company is located in Europe (EU 28 + Switzerland).

The announced values are aggregated by sponsor, add-on and strategic deals, as described in previous section.

Announced values are aggregated on the basis of the announcement date of deals.

2.5. Withdrawn M&A

This graph shows withdrawn volumes of M&A deals, defined as bids which were officially announced and subsequently withdraw, not pursued, rejected or expired.

Withdrawn volumes are aggregated on the basis of the withdrawn date.

2.8. Average days to complete

Average days between date of announcement and completion date of intra-European deals.

Completed deals with zero days between dates are excluded.

2.9. Index: completed relative to withdrawn

Index calculated as the total amount of completed M&A deals in a year calendar and year-to-date, relative to withdrawn volumes during the same period.

2.10. - 2.11. Completed M&A by nationality and industry

The figures represent the most recent quarter's value of completed M&A deals of European target firms, aggregating by nationality of target firm (chart 2.10.).

Deal values are denominated in nominal EUR billion. Data are sourced from Dealogic and comply with rank eligibility criteria.

3. Outstanding

3.1. and 3.4. Market capitalisation

Graph 3.1 shows the EUR trillion amount of domestic market capitalisation of European (EU 28+ Switzerland), EU 28 and Euro zone (EU 19) exchanges. The composition of EU 28 and EU 19 countries remains constant throughout the sample period.

The domestic market capitalisation of euro zone exchanges is sourced from the ECB ("Listed shares issued by euro area residents"). The following non-eurozone exchanges were also aggregated: Zagreb Stock Exchange, Bucharest Stock Exchange, Bulgarian Stock Exchange, CEESEG – Budapest, CEESEG – Prague, NASDAQ Nordic – Copenhagen,

NASDAQ Nordic – Stockholm, Warsaw Stock Exchange, London Stock Exchange and SIX Swiss Exchange.

Market capitalisation figures for non-eurozone countries are sourced from FESE, except for LSE, and NASDAQ OMX which were sourced directly from the exchanges' websites, and for the Zagreb Stock Exchange which was sourced from Reuters Datastream.

Graph 3.4 shows the market capitalisation of listed shares on European, EU 28 and EU 19 exchanges as proportion of nominal GDP. GDP is sourced from Eurostat in its quarterly form. For purposes of this chart, the denominator is calculated as the sum of the past four quarters nominal seasonal adjusted GDP values.

3.2 Euro-denominated listed shares

This graph illustrates the outstanding amounts of euro-denominated quoted shares issued by euro area residents, by sector of issuer. The figures are denominated in EUR nominal trillions.

Quoted shares include all shares with prices quoted on a recognised stock exchange or other form of regulated market. Quoted shares comprise all financial assets which represent property rights in corporations or quasi-corporations. These financial assets generally entitle the holder to a share in the profits of the corporations or quasi-corporations and to a share in their net assets in the event of liquidation. Quoted shares are valued and reported at market values.

The data are sourced from the ECB.

3.3. and 3.11 Number of listed companies

This chart aggregates the number of listed companies on European exchanges (Domestic and Foreign). The data is sourced from FESE, the World Federation of Exchanges, and LSEG and other European exchanges.

3.5. Turnover ratio

The chart illustrates the quarterly turnover ratio of EU 28 stock exchanges and selected MTFs calculated as the ratio of four times the quarterly turnover value as proportion of the market capitalisation at the end of the quarter.

The following MTFs were selected as representative of the off-exchange market: Aquis, BLINK MTF, Burgundy, BXE Book, CXE Book, Equiduct, ICAP BlockCross, Instinet, Blockmatch, ITG Posit, Liquidnet, NEURO, Nomura NX, NYSE Arca, Pipeline, Quote MTF, SIGMA X MTF, SLS, Smartpool, TOM MTF, Turquoise, UBS MTF, Xetra, and Xetra International.

OTC transactions are not included due to potential double counting between TRFs.

3.6., 3.9 and 3.10 Quarterly, monthly and daily turnover on European Exchanges and MTFs

Average value of equity turnover by type of order book (3.6) and by type of venue (3.9). Data are sourced from BATS Chi-X for the following exchanges and MTFS:

Aquis, BLINK MTF, Burgundy, BXE Book, CXE Book, Equiduct, ICAP BlockCross, Instinet, Blockmatch, ITG Posit, Liquidnet, NEURO, Nomura NX, NYSE Arca, Pipeline, Quote MTF, SIGMA X MTF, SLS, Smartpool, TOM MTF, Turquoise, UBS MTF, Xetra, Xetra International, Euronext Amsterdam, Bolsa de Madrid, Euronext Brussels, NASDAQ OMX Copenhagen, NASDAQ OMX Helsinki, Euronext Lisbon, LSE, Borsa Italiana (Milan), Oslo Bors, Euronext Paris, SIX Swiss Exchange, NASDAQ OMX Stockholm and Wiener Borse.

3.6. - 3.8. Equity turnover by type of book

Chart 3.6 shows the quarterly turnover value on european main markets and MTFs by type of order book.

Chart 3.7 shows the monthly value traded in dark pools as proportion of turnover in Exchanges and MTFs (Dark and Lit). For dark pool trading, the same MTFs selected for chart 3.5 were taken into consideration.

Chart 3.8 illustrates the aggregate proportion of dark pool trading of the constituent shares of the selected indices.

Data are sourced from BATS Chi-X.

3.9. Equity turnover by type of venue (main market and MTF)

The chart illustrates the quarterly turnover in EUR value in selected MTFs where data was available: Aquis, BLINK MTF, Burgundy, BXE Book, CXE Book, Equiduct, ICAP BlockCross, Instinet, Blockmatch, ITG Posit, Liquidnet, NEURO, Nomura NX, NYSE Arca, Pipeline, Quote MTF, SIGMA X MTF, SLS, Smartpool, TOM MTF, Turquoise and UBS MTF.

3.10. Daily Equity turnover

The chart shows daily turnover in EUR value in selected main markets and MTFs where data was available. The list of MTFs is the same as in previous charts. Datya are sourced from Bats Chi-X.

4. Valuation

4.1. Price indices of listed shares

This graph represents price data for selected European exchanges selected as benchmarks in the respective jurisdictions. The price calculations are provided by Datastream, which for purposes of comparability are converted into a price index with January 2008 as base (Jan-08 = 100).

4.2. - 4.6. Valuation ratios

These graphs illustrate several valuation ratios of selected price indices of European shares.

PE ratios are calculated as the ratio of market prices as proportion of market-expected annual earnings. The ratios are sourced from Datastream.

Price-to-book ratio represents the average ratio of share market prices as proportion of book prices of Stoxx 600 listed companies and a PanEuropean index of European shares compiled by Thomson Reuters Datastream.

VSTOXX 50 index is the market-implied volatility of STOXX 50 listed shares, sourced from Stoxx.

Summary of the Methodologies Adopted for this Report

Annex

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London Office

39th Floor 25 Canada Square London E14 5LQ United Kingdom

Switchboard:

+44 (0)20 3828 2700

Brussels Office

Rue de la Loi, 82 1040 Brussels Belgium

Switchboard:

+32 (0) 2 788 3971

Frankfurt Office

Skyper Villa Taunusanlage 1 60329 Frankfurt am Main Germany

Switchboard:

+49 (0) 69 5050 60 590

AFME

Julio Suarez – Manager, Research April Day – Managing Director, Equities Trading Andrew Brooke – Director, ECM and Corporate Finance Sean Barwick – Manager, Equities

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