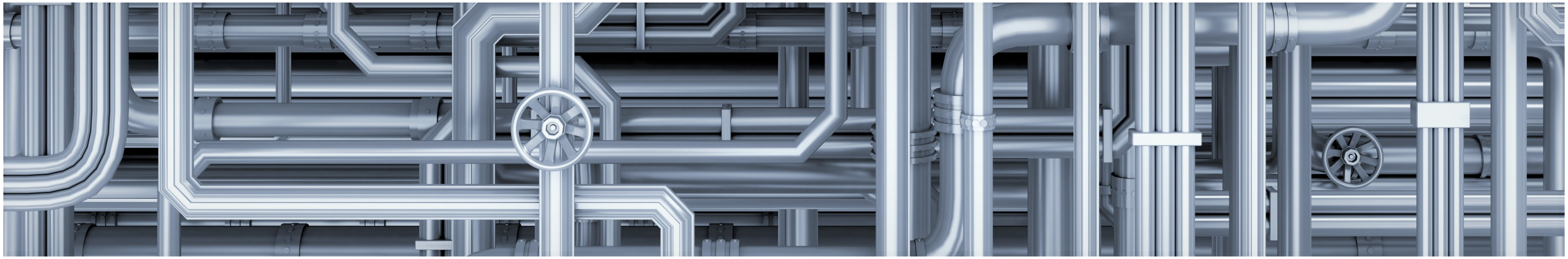
NEWFINANCIAL
Rethinking capital markets



THE PROBLEM WITH EUROPEAN STOCK MARKETS

Analysis of the fragmented stock exchange landscape in Europe, how it is holding back growth in capital markets – and what we can do about it

March 2021

by William Wright & Eivind Friis Hamre

SUMMARY

It is not new news that Europe has a complex patchwork of equity markets, stock exchanges and post-trade infrastructure, but this short paper paints this problem in particularly stark terms. The genesis of this paper came from two simple thought experiments: first, can we draw a diagram of the structure of European equity markets on one page? And second, what would the US stock market look like if every state has its own stock exchange? If you read nothing else in this report, please look at the map of the US market on page three and the diagram of European equity markets on page six. Here is a quick summary of this paper:

> The elephant in the room

The complex patchwork of European equity markets is a huge obstacle to building bigger and better capital markets at a time when the European economy needs them more than ever. We can tinker at the edges with the detail of regulation, but so as long as Europe has 22 different stock exchange groups operating 35 different exchange for listings, 41 exchanges for trading, and nearly 40 different CCPs and CSDs, not much will change.

> Punching below its weight

The European equity market is less than half the size of the US but has three times as many exchange groups; more than 10 times as many exchanges for listings; more than twice as many exchanges for trading; and roughly 20 times as many post-trade infrastructure providers. This complexity may help explain why Europe has smaller and less developed stock markets than its global peers; why the number of listed companies is falling (down 17% over the past decade); and why Europe and the EU's share of global stock market and IPO activity is well below their share of GDP.

> Why should we care?

Large and efficient stock markets can be a virtuous circle, generating more IPO activity and more liquidity. Small stock markets – and 18 out of 33 stock markets in Europe have a combined value of less than €100bn – can descend into a vicious circle. Our research shows a clear correlation between the size of a market and its depth, level of IPO activity, and liquidity.

> Some sensible solutions

Europe should keep chipping away at making it easier for companies to go public, easier for investors to invest in them, and easier for intermediaries to trade them. Individual countries can make equity more attractive by addressing the tax differential with debt funding and rethinking capital gains tax. Stock exchanges could also be nudged and encouraged to consolidate – our research shows small exchanges that are part of wider groups perform better than standalone exchanges.

> Some more radical suggestions

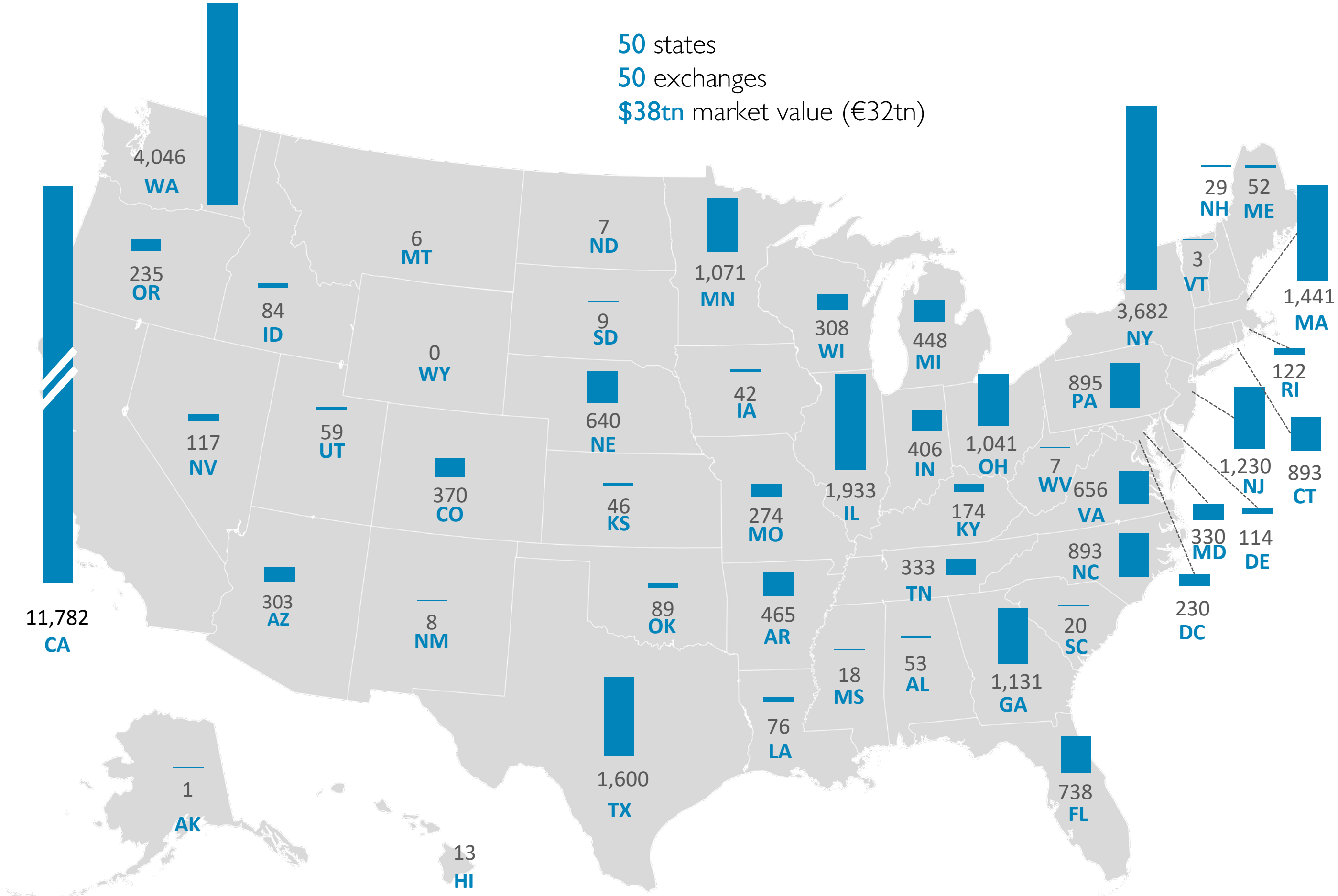
Consolidation needs to go a step further and filter down from merging exchange groups, to creating genuine single markets with the same rulebook within those groups. We need more competition between stock exchanges where it really matters and less competition where it doesn't: imagine a world with four or five large groups of exchanges in Europe operating four or five large, deep, competing single markets within those groups; in which every listed company made a free and active decision over which of these exchange groups to choose for its listing; every stock was tradeable on every market in every group; all feeding in to three or four open access CCPs and CSDs that supported any and all exchange groups on the same terms.

** Note: this paper does not include analysis of the additional complexity of more than 200 trading venues in Europe (MTFs) and more than 70 'systematic internalisers'. We have produced this report on a best efforts basis and apologise for any errors. Please contact william.wright@newfinancial.org with any comments.*

WHAT IF EVERY STATE IN THE US HAD ITS OWN STOCK EXCHANGE?

Fig.1 The Disunited States of America

Map showing the value of listed companies in the US based on the location of their corporate headquarters
(Combined market value at the end of 2019 in $bn)



50 states
50 exchanges
$38tn market value (€32tn)
4,046 WA
11,782 CA
235 OR
84 ID
6 MT
7 ND
9 SD
0 WY
1,071 MN
308 WI
448 MI
3,682 NY
29 NH
52 ME
3 VT
1,441 MA
122 RI
893 CT
1,230 NJ
895 PA
117 NV
59 UT
370 CO
640 NE
42 IA
46 KS
1,933 IL
406 IN
1,041 OH
7 WV
656 VA
174 KY
274 MO
330 MD
114 DE
230 DC
893 NC
333 TN
303 AZ
8 NM
89 OK
465 AR
20 SC
18 MS
53 AL
1,131 GA
76 LA
1,600 TX
738 FL
1 AK
13 HI

Source: New Financial analysis of data from FTSE Russell

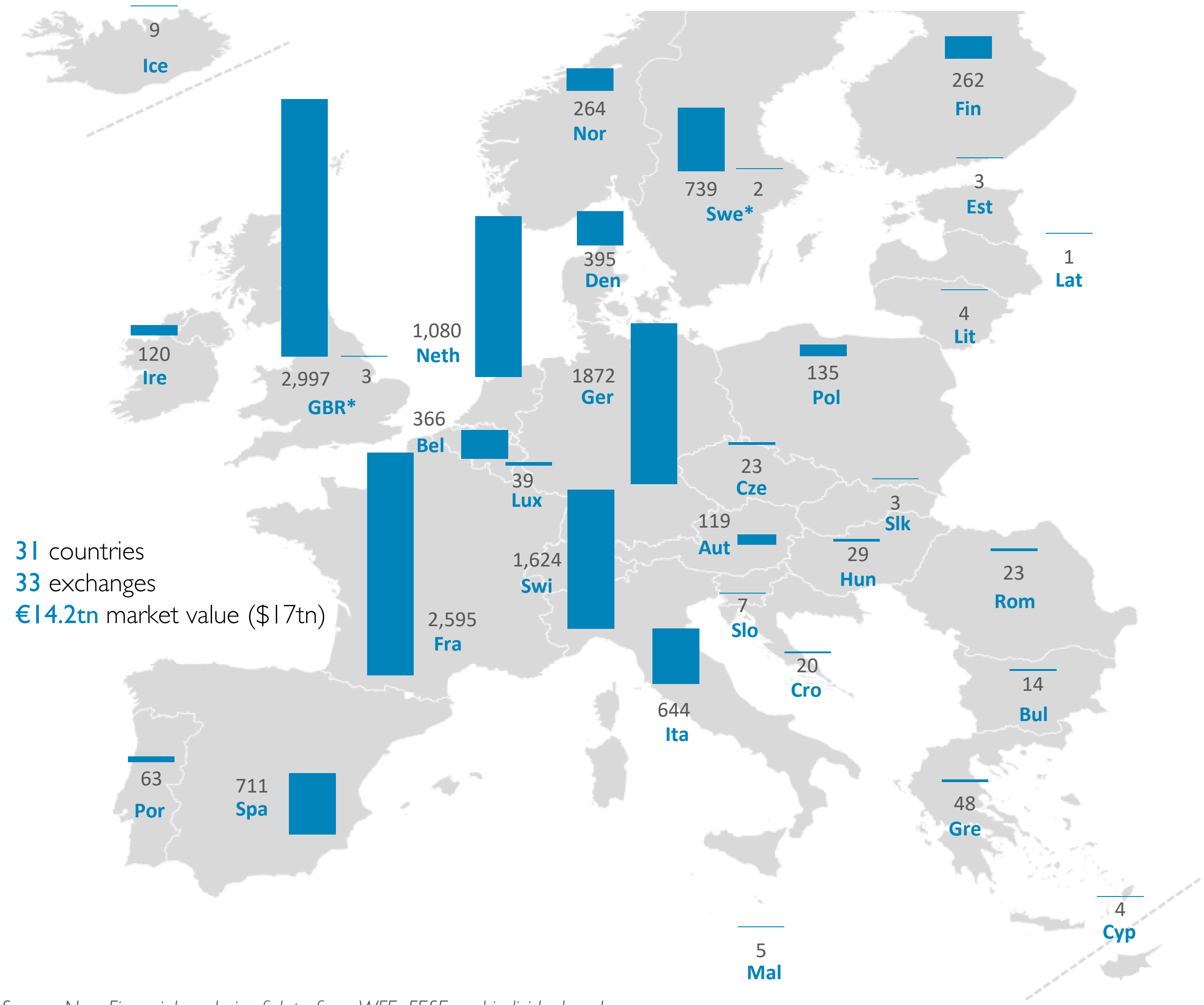
- Here's what the US stock market would look like if every state had its own stock exchange for listing and trading US stocks. This is of course an absurd idea, but it looks remarkably like the map of stock exchanges in Europe on the next page.
- We used data from the FTSE Russell 3000 index at the end of 2019, and allocated the market cap of each company to the state in which it has its operational headquarters.
- California is the dominant market with nearly $12 trillion of listed companies (or 31% of the US total), followed by Washington (11%) and New York (10%). A group of mid-tier states like Illinois, Georgia, Massachusetts and Texas have a share of about 4% or 5% each. And then there is a long tail of small exchanges.
- In the 19th century, there were regional exchanges in cities as diverse as Baltimore, Chicago, Cincinnati, Detroit, San Francisco and St Louis, but since then the US has sensibly converged on two dominant competing exchanges for listing in the form of Nasdaq and the NYSE.

WHAT EUROPEAN EXCHANGES LOOK LIKE TODAY

Fig.2 What capital markets union?

Map of Europe showing market value of listed companies by exchange in each country

(Combined market value at the end of 2019 in €bn)



9
Ice
264
Nor
739
2
Swe*
262
Fin
3
Est
1
Lat
4
Lit
395
Den
120
Ire
2,997
3
GBR*
1,080
Neth
1872
Ger
135
Pol
366
Bel
39
Lux
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Cze
3
Slk
119
Aut
1,624
Swi
29
Hun
23
Rom
7
Slo
2,595
Fra
20
Cro
644
Ita
14
Bul
63
Por
711
Spa
48
Gre
4
Cyp
5
Mal

31 countries
33 exchanges
€14.2tn market value ($17tn)

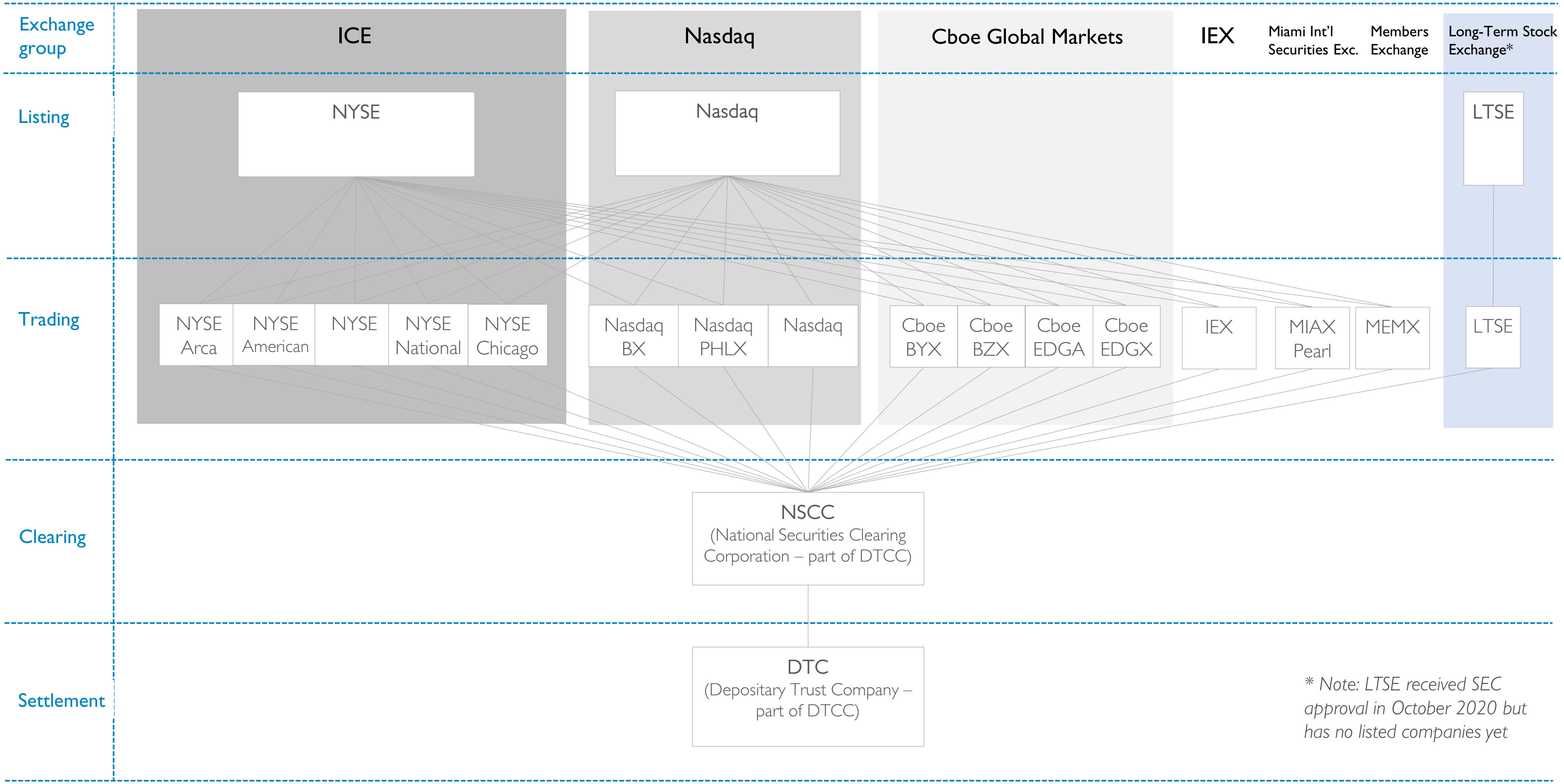
Source: New Financial analysis of data from WFE, FESE and individual exchanges

- Here's a map of European stock exchanges today that looks remarkably similar to the thought experiment on the previous page.
- Across 31 countries (the EU plus UK, Switzerland, Norway and Iceland) we counted 33 different stock exchanges for listing stocks (we'll come to trading them a little later) for market that is less than half the value of the US ($17 trillion vs $38 trillion). If you stretch your definition of Europe to include the 47 members of the Council of Europe plus Belarus and Moldova, you have 49 countries and 45 listings exchanges, which is similar to the US map.
- The UK has the largest market with €3 trillion in listed companies (21% of the European total), followed by France with €2.6tn or 18%. There is a mid-tier of sizeable markets in Germany, Switzerland and the Netherlands, but then a long tail of small exchanges (18 of the 33 exchanges have a combined market cap of less than €100bn).
- It may seem a little radical to collapse the 33 European exchanges for listing into two competing exchanges as in the US, but with exchange consolidation this is beginning to happen (both Euronext and Nasdaq own seven European exchanges each).

EQUITY MARKET STRUCTURE IN THE US

Fig.3 A model of simplicity

This is a simplified diagram of equity market structure in the US showing exchange groups, exchanges for listing and trading, clearing, and settlement. While the structure of US exchanges may look complicated – particularly for trading – it is a model of simplicity compared to Europe. It is worth noting that the US market is more than twice as big as Europe, with a combined market capitalisation of $38 trillion at the end of 2019, compared with $17 trillion for Europe.



Exchange group: ICE; Nasdaq; Cboe Global Markets; IEX; Miami Int'l Securities Exc.; Members Exchange; Long-Term Stock Exchange*

Listing: NYSE; Nasdaq; LTSE

Trading: NYSE Arca; NYSE American; NYSE; NYSE National; NYSE Chicago; Nasdaq BX; Nasdaq PHLX; Nasdaq; Cboe BYX; Cboe BZX; Cboe EDGA; Cboe EDGX; IEX; MIAX Pearl; MEMX; LTSE

Clearing: NSCC (National Securities Clearing Corporation – part of DTCC)

Settlement: DTC (Depositary Trust Company – part of DTCC)

** Note: LTSE received SEC approval in October 2020 but has no listed companies yet*

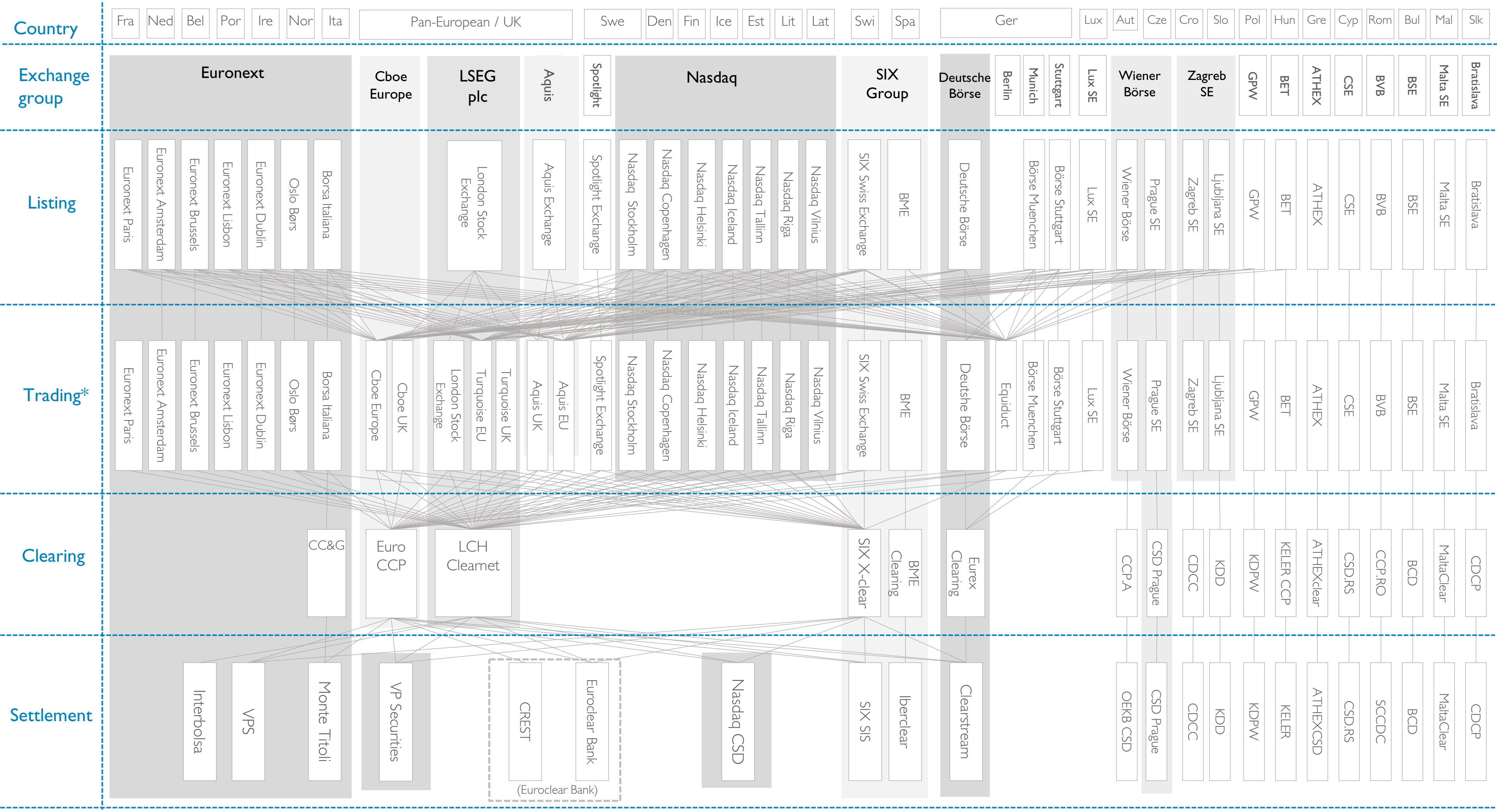
Source: New Financial

7x exchange groups, 3x listings exchanges, 16x trading exchanges, 1x CCP, 1x CSD

EQUITY MARKET STRUCTURE IN EUROPE

Fig.4 The European solution

This is a simplified (!) diagram of equity market structure in Europe (31 countries) showing countries, exchange groups, exchanges for listing and trading, clearing, and settlement. One thing is clear: if you were designing the European market from scratch it probably wouldn't look like this. If this chart looks complicated, it's because it is. Maybe the almost Kafka-esque complexity of the Europe market is one of the many reasons why it is only half as big as the US.



Country: Fra, Ned, Bel, Por, Ire, Nor, Ita, Pan-European / UK, Swe, Den, Fin, Ice, Est, Lit, Lat, Swi, Spa, Ger, Lux, Aut, Cze, Cro, Slo, Pol, Hun, Gre, Cyp, Rom, Bul, Mal, Slk

Exchange group: Euronext, Cboe Europe, LSEG plc, Aquis, Spotlight, Nasdaq, SIX Group, Deutsche Börse, Berlin, Munich, Stuttgart, Lux SE, Wiener Börse, Zagreb SE, GPW, BET, ATHEX, CSE, BVB, BSE, Malta SE, Bratislava

Listing: Euronext Paris, Euronext Amsterdam, Euronext Brussels, Euronext Lisbon, Euronext Dublin, Oslo Børs, Borsa Italiana, London Stock Exchange, Aquis Exchange, Spotlight Exchange, Nasdaq Stockholm, Nasdaq Copenhagen, Nasdaq Helsinki, Nasdaq Iceland, Nasdaq Tallinn, Nasdaq Riga, Nasdaq Vilnius, SIX Swiss Exchange, BME, Deutsche Börse, Börse Muenchen, Börse Stuttgart, Lux SE, Wiener Börse, Prague SE, Zagreb SE, Ljubljana SE, GPW, BET, ATHEX, CSE, BVB, BSE, Malta SE, Bratislava

Trading*: Euronext Paris, Euronext Amsterdam, Euronext Brussels, Euronext Lisbon, Euronext Dublin, Oslo Børs, Borsa Italiana, Cboe Europe, Cboe UK, London Stock Exchange, Turquoise EU, Turquoise UK, Aquis UK, Aquis EU, Spotlight Exchange, Nasdaq Stockholm, Nasdaq Copenhagen, Nasdaq Helsinki, Nasdaq Iceland, Nasdaq Tallinn, Nasdaq Riga, Nasdaq Vilnius, SIX Swiss Exchange, BME, Deutshe Börse, Equiduct, Börse Muenchen, Börse Stuttgart, Lux SE, Wiener Börse, Prague SE, Zagreb SE, Ljubljana SE, GPW, BET, ATHEX, CSE, BVB, BSE, Malta SE, Bratislava

Clearing: CC&G, Euro CCP, LCH Clearnet, SIX X-clear, BME Clearing, Eurex Clearing, CCP.A, CSD Prague, CDCC, KDD, KDPW, KELER CCP, ATHEXClear, CSD.RS, CCP.RO, BCD, MaltaClear, CDCP

Settlement: Interbolsa, VPS, Monte Titoli, VP Securities, CREST, Euroclear Bank, (Euroclear Bank), Nasdaq CSD, SIX SIS, Iberclear, Clearstream, OEKB CSD, CSD Prague, CDCC, KDD, KDPW, KELER, ATHEXCSD, CSD.RS, SCCDC, BCD, MaltaClear, CDCP

* *Note: this paper does not include analysis of the additional complexity of more than 200 trading venues in Europe (MTFs) and more than 70 'systematic internalisers'*

22x exchange groups, 35x listings exchanges, 41x trading exchanges, 18x CCPs, 22x CSDs

COMMENTARY ON EUROPEAN & US MARKET STRUCTURE

The diagrams on the previous two pages highlight the main differences between the structure of the US and European equity market (one is quite complex, the other is absurdly complex). We think it is the first time anyone has tried to summarise the structure in this way on one page. Even though we all know that market structure in Europe is hugely fragmented, we think this presentation makes that case in a particularly stark way. Here are some key takeaways:

a) Comparative summary*:

Metric	US	Europe
# Countries	1	31
Market value	$38 trillion	$17 trillion
# Listed companies	4,563	6,202
# Exchange groups	7	22
# Listings exchanges	3	35
# Trading exchanges	16	41
# CCPs	1	18
# CSDs	1	22

** Note: as of end of 2019*
Source: New Financial

b) Key conclusions:

Size matters: the US market is more than twice the size of the European markets ($38 trillion vs $17 trillion) and it is more than twice as deep relative to GDP (165% vs 79%). Maybe - just maybe - the complexity of the European market structure acts as a drag on growth and prevents economies of scale.

A model of complexity: despite its massive size disadvantage, the European market has three times as many exchange groups (22 vs 7); nearly 12 times as many exchanges for listings (35 vs 3); more than twice as many exchanges for trading; and roughly 20 times as many post-trade institutions. Perhaps one feeds the other.

Real vs episodic competition: there is much more competition in the US market between exchanges and that competition is (mainly) in the places where it matters:

> **Listings:** Nasdaq and the NYSE compete tooth and nail for virtually every IPO, but in Europe competition is episodic and more than 95% of European IPOs are on domestic exchanges which enjoy a virtual monopoly in their domestic markets.

> **Trading:** virtually all of the exchanges for trading in the US compete for trading volumes in stocks listed on all the exchanges. In Europe, the main competition in trading is between national / incumbent exchanges and relatively new international exchanges such as Aquis, Cboe, and Turquoise *not* between incumbents (say, Euronext Paris and Deutsche Boerse).

> **Post-trade:** in the US, there is no competition in post-trade for equity markets: all clearing and settlement goes through the mutually-owned utility-like DTCC. In Europe, many exchange groups own a CCP and a CSD, and despite some progress towards openness there is a long way to go.

Partial consolidation: there has been significant consolidation in Europe at the exchange group level over the past 20 years (see page 8): one third of the exchange groups in Europe (7 out of 22) own and operate more than one exchange, compared with 0 out of 31 groups in 2000. But this consolidation has so far not filtered down to the market level, where stocks within a particular exchange group list, trade, clear and settle in a single market with a single rulebook.

Exchange consolidation in Europe

Fig.5 Making progress…

Summary of the changes in exchange groups and operators in Europe 2000 to 2021 (listing exchanges only)

31x countries	31x exchange groups in 2000	16x exchange groups in 2021	31x stock exchanges in 2021
France	Paris Bourse	Euronext	Euronext Paris
Netherlands	Amsterdam Exchanges		Euronext Amsterdam
Belgium	Bourse de Bruxelles		Euronext Brussels
Portugal	Bolsa de Lisboa e Porto		Euronext Lisbon
Ireland	Irish Stock Exchange		Euronext Dublin
Norway	Oslo Stock Exchange		Oslo Bors
Italy	Borsa Italiana		Borsa Italiana
UK	London Stock Exchange	London Stock Exchange Group	London Stock Exchange
Switzerland	SWX Swiss Exchange	SIX Group	SIX Swiss Exchange
Spain	BME		BME
Germany	Deutsche Boerse	Deutsche Boerse	Deutsche Boerse
Sweden	OM Group	Nasdaq	Nasdaq Stockholm
Finland	Helsinki Exchanges Group		Nasdaq Helsinki
Denmark	Copenhagen Stock Exchange		Nasdaq Copenhagen
Iceland	Iceland Stock Exchange		Nasdaq Iceland
Estonia	Tallinn Stock Exchange		Nasdaq Tallinn
Latvia	Riga Stock Exchange		Nasdaq Riga
Lithuania	Vilnius Stock Exchange		Nasdaq Vilnius
Poland	Warsaw Stock Exchange	GPW	Warsaw Stock Exchange
Austria	Wiener Boerse	Wiener Boerse	Wiener Boerse
Czech Rep.	Prague Stock Exchange		Prague Stock Exchange
Croatia	Zagreb Stock Exchange	Zagreb Stock Exchange	Zagreb Stock Exchange
Slovenia	Ljubljana Stock Exchange		Ljubljana Stock Exchange
Luxembourg	Luxembourg Stock Exchange	Luxembourg Stock Exchange	Luxembourg Stock Exchange
Romania	Bucharest Stock Exchange	Bucharest Stock Exchange	Bucharest Stock Exchange
Hungary	Budapest Stock Exchange	Budapest Stock Exchange	Budapest Stock Exchange
Greece	Athens Stock Exchange	Athens Stock Exchange	Athens Stock Exchange
Bulgaria	Bulgarian Stock Exchange	Bulgarian Stock Exchange	Bulgarian Stock Exchange
Cyprus	Cyprus Stock Exchange	Cyprus Stock Exchange	Cyprus Stock Exchange
Malta	Malta Stock Exchange	Malta Stock Exchange	Malta Stock Exchange
Slovakia	Bratislava Stock Exchange	Bratislava Stock Exchange	Bratislava Stock Exchange

- Over the past few decades, European stock exchanges have made significant progress in terms of consolidation. Across 31 countries in Europe there were 31 stock exchange groups in 2000 operating 31 exchanges (this excludes regional exchanges in Germany and Spain). Today the number of exchange groups has halved to just 16, although the number of stock exchanges that they operate has stayed the same. The big challenge is that although the exchange operating companies have merged, the actual markets that they operate have not.
- This consolidation has been led by Euronext which started with France, Netherlands & Belgium in 2000 and has since expanded to seven markets (this analysis assumes Borsa Italiana will become part of Euronext this year). Nasdaq also operates seven markets (or eight if you include Armenia): having acquired OMX in 2007. Six and BME completed their merger last year.
- Deutsche Boerse, which operates the third biggest market in Europe, has been notable by its absence from this consolidation. However, it has tried on at least four occasions to consolidate (twice with the London Stock Exchange, once with Euronext and once with NYSE Euronext).

WHY SHOULD WE CARE?

There are a lot of reasons why we should care about the fragmented and complex structure of European equity markets. Ultimately, they boil down to one thing: the existing structure is a massive obstacle to building bigger and better capital markets in Europe when the European economy needs them more than ever. We can tinker at the edges with the detail of Mifid II or the prospectus directive, but for as long as Europe has 22 different stock exchange groups operating 35 different exchange for listings, 41 exchanges for trading, and nearly 40 different CCPs and CSDs, there is unlikely to be any substantive progress.

The next section highlights the relative state of European equity markets in a global context and highlights some of the evidence that size matters when it comes to stock markets. A complex patchwork of small exchanges raises costs for companies, investors and intermediaries; it reduces their interest and incentives in individual markets; reduces liquidity; and acts as a drag on growth in capital markets activity and the wider economy. In summary:

> Punching below its weight

On virtually every metric European equity markets (and in particular markets in the EU) are punching below their weight on the global stage. Europe and the EU's share of global stock market and IPO activity is significantly lower than their share of GDP.

> Playing in the shallow end

European equity markets are for the most part less developed relative to GDP than their global peers. Deeper stock markets can become a virtuous circle of higher levels of IPO activity and more liquidity, but the long tail of smaller exchanges in Europe acts as a drag on growth. Stock markets in the EU are less than half as deep as in markets like Canada, Japan and the US relative to GDP, and European IPO activity is significantly less developed than global peers.

> Going down

Stock markets in many developed economies are struggling with a decline in the number of listed companies but the problem seems particularly acute in Europe. The number of listed companies in Europe has fallen by 17% in the past decade (a loss of nearly 1,300 companies), while in US the number of companies has increased slightly. Smaller exchanges in Europe have been the hardest hit, with a decline in listed companies of around one third.

> Size matters

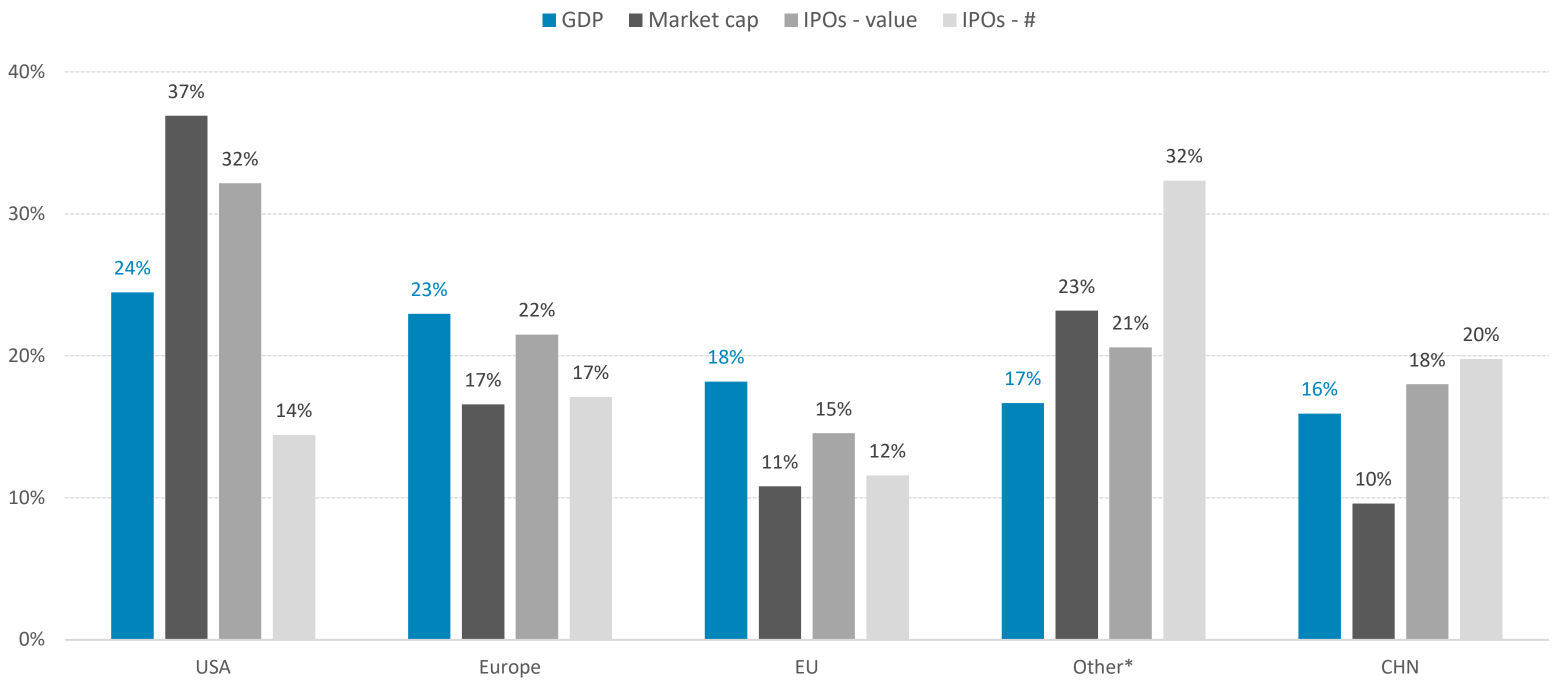
Our research suggests that size matters: there is a clear correlation between the size of a stock market and its depth, the level of IPO activity and – most strikingly – liquidity. Smaller exchanges are less deep relative to GDP, attract lower levels of IPOs, and less liquidity. This risks becoming a vicious circle for smaller markets.

> The benefits of consolidation

It's encouraging to see some evidence that stock markets that are part of wider groups perform better in terms of depth, IPO activity and liquidity. This group effect is particularly powerful for smaller exchanges: smaller markets that are part of a bigger groups generate three to four times as much IPO activity as small standalone markets and have more liquidity.

Fig.6 Punching below its weight

Global market share of GDP, market capitalisation, and the value and number of domestic IPOs (2015 to 2020)



** Other = Australia, Canada, Hong Kong, Japan, Singapore, South Korea, Switzerland & UK*

Source: New Financial analysis of data from the IMF, Dealogic, WFE, FESE and individual exchanges

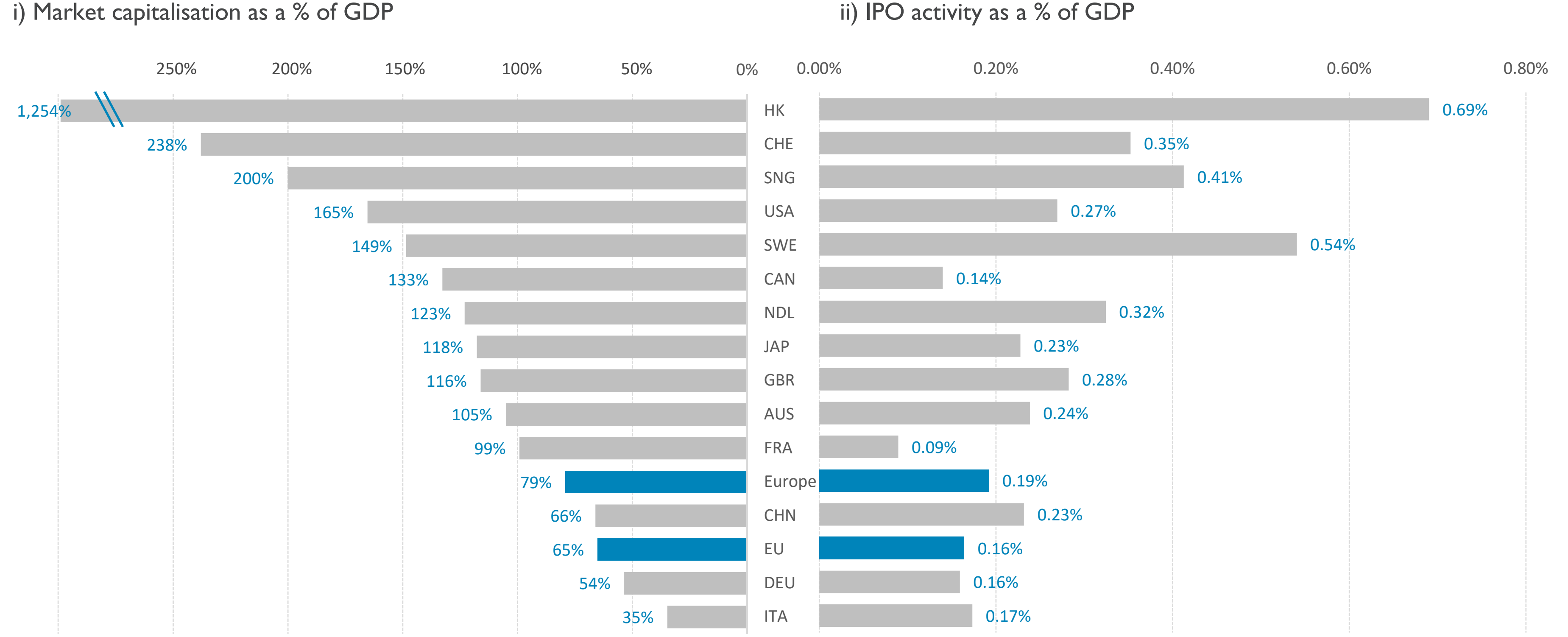
Key points

- On pretty much every measure, stock exchanges in Europe and the EU are punching below their weight. The blue columns in the chart above show the global share of GDP for each region and the shaded grey columns show the share of global market value, IPO value and number of IPOs.
- The US dominates the global market with a share of global market value of 38% and a third of all domestic IPOs by value. Europe has a similar share of GDP as the US but less than half the market value and only two thirds the value of IPOs.
- A better comparison for the EU might be to compare it with a group of other developed economies which have a similar combined share of global GDP – but more than double the share of market value, 50% more in terms of IPO activity, and three times as many IPOs.

WHY SHOULD WE CARE? - DEPTH OF MARKETS

Fig.7 The depth of European stock markets

Market capitalisation and domestic IPO activity as a % of GDP for selected countries (average from 2015 to 2020)



Source: New Financial analysis of data from Dealogic, WFE, FESE and individual exchanges

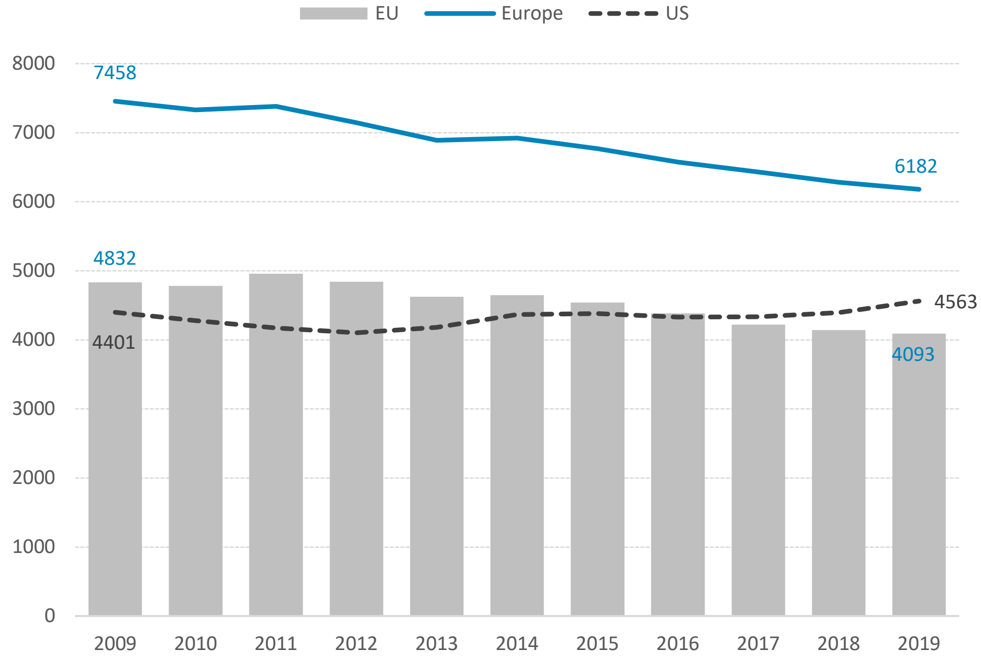
- One way of thinking about the state of European equity markets is to measure them relative to GDP and compare them with the rest of the world. The left hand chart above shows the combined market capitalisation of listed companies as a % of GDP in a selection of countries over the period 2015 to 2020, with Europe and the EU highlighted in blue. The chart on the right shows the value of domestic IPO activity as a % of GDP over the same period.

- If you half close your eyes, the shape of each chart is roughly the same: in other words, countries with bigger stock markets relative to the size of their economy also generate more IPO activity relative to GDP. It's also striking to see that Europe and the EU feature towards the bottom of both charts. The combined market value of listed companies in Europe is just 79% of GDP, less than half the level of the US and significantly lower than markets like Canada, Japan and Australia (the EU is at just 65% of GDP). On the IPO side, European IPOs add up to just under 0.2% of GDP a year, less than half the rate of Hong Kong or Singapore and significantly lower than countries like the US, Japan and Australia. Note that big economies like France, Germany and Italy are towards the bottom of the table.

WHY SHOULD WE CARE? – THE DECLINE IN LISTED COMPANIES

Fig.8 Shrinking ambition

The number domestic listed companies in the EU, Europe and the US 2009 to 2019



	Change in # of listed companies	% Change
Europe	-1,276	-17%
EU	-739	-15%
UK	-511	-23%
Small European markets*	-530	-34%
US	+162	+4%
Other**	+1,160	+13%

** Smaller markets = 15 smallest European stock markets by market value*
*** Other = Australia, Canada, Hong Kong, Singapore and South Korea*

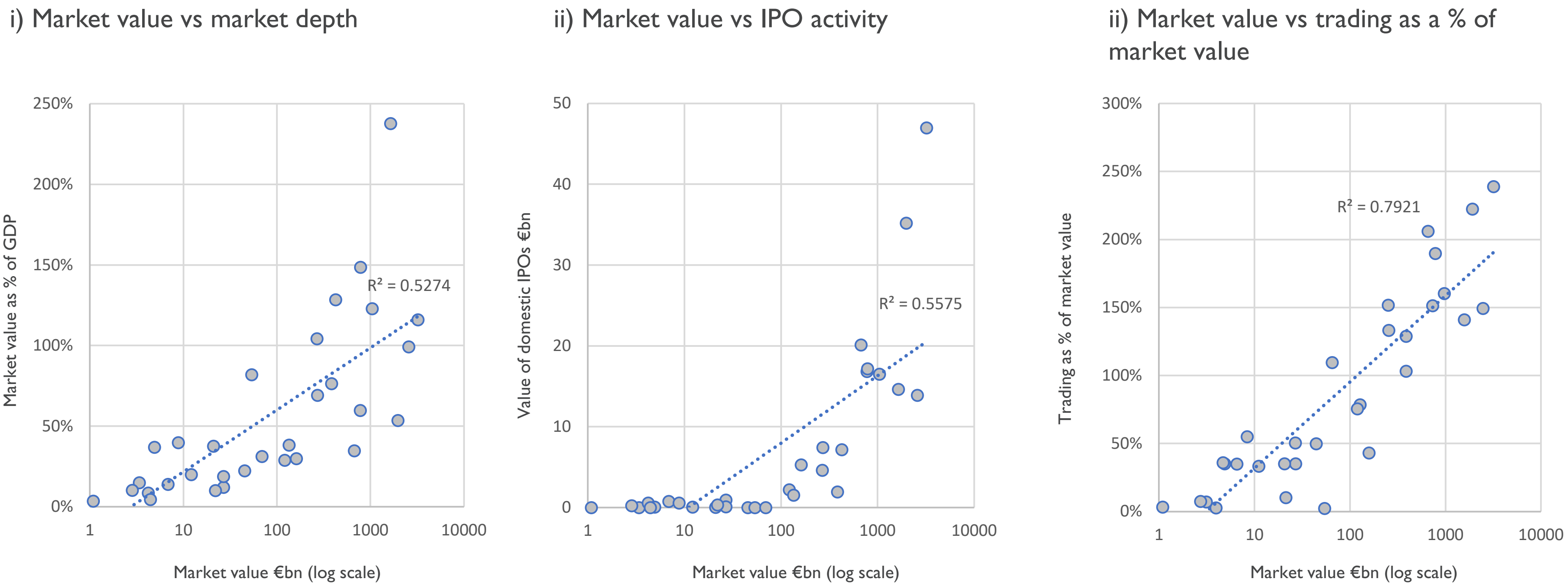
Source: New Financial analysis of date from WFE, FESE and individual exchanges

- One reason for a sense of urgency in European equity markets is that at a time when the European economy needs them more than ever, they are actually shrinking. The chart on the left above shows number of domestic listed companies in Europe, the EU and the US from 2009 to 2019, and the table on the right summarises the changes over the past decade in a selection of regions and countries.
- The number of listed companies across our sample of 31 European countries has shrunk by 17% since 2009, which translates into a decline of nearly 1,300 listed companies. In the EU, the number of listed companies has fallen by 15% since 2009, a decline of more than 700 companies. The smallest 15 stock markets in Europe have shrunk by a third (34%), losing more than 500 listed companies – and they can't really afford to keep shrinking.
- The US appears to have stemmed the decline in listed companies of the previous decade, with a 4% increase in listed companies over the period. Meanwhile a composite group of Australia, Canada, Hong Kong, Singapore, and South Korea has seen an increase of 13% in the number of listed companies.

WHY SHOULD WE CARE? - SIZE MATTERS

Fig.9 Bigger and better

A selection of metrics comparing the size of stock markets in European countries with the depth of the market relative to GDP, IPO activity & trading volumes *(Averages from 2015 to 2020)*



i) Market value vs market depth

ii) Market value vs IPO activity

ii) Market value vs trading as a % of market value

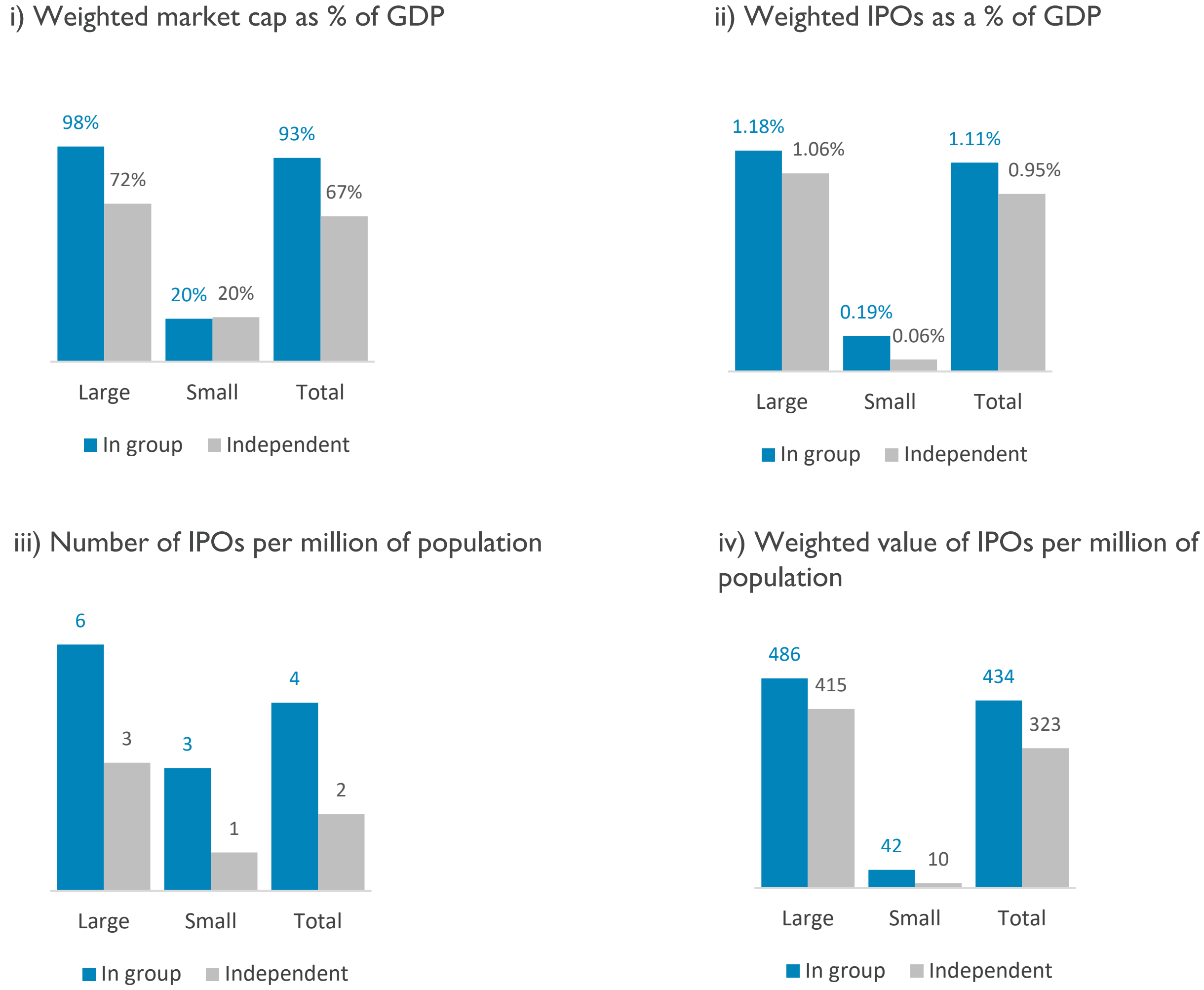
Source: New Financial analysis of data from Dealogic, WFE, FESE and individual exchanges

- When it comes to stock markets, size really does matter: bigger stock markets are deeper relative to the size of the local economy; generate a disproportionate amount of IPO activity; and have significantly higher trading volumes than smaller exchanges. This is quite a strong warning sign for European markets where nearly two thirds of them (18 out of 33) have a combined value of less than €100bn.
- The correlation on the left between the value and depth of the stock market is clear, although it is the weakest of the three. The link between market value and IPO value is slightly stronger, with a clear bias towards the largest six or seven markets. And the correlation on the right between market value and trading volumes is particularly striking: lower trading volumes suggest less efficient / higher cost markets and less interest from investors. This tends to translate into a higher cost of capital for listed companies, which makes becoming or staying listed less attractive.

WHY SHOULD WE CARE? - THE BENEFITS OF CONSOLIDATION

Fig.10 **Stronger together?**

A selection of metrics showing the depth of activity for standalone exchanges and exchanges in larger groups



i) Weighted market cap as % of GDP

ii) Weighted IPOs as a % of GDP

iii) Number of IPOs per million of population

iv) Weighted value of IPOs per million of population

** Note: data from 2019 only; small exchanges = the smallest 16 market by market value in Europe*

*** This analysis treats SIX Swiss Exchange and BME as independent exchanges as they did not complete their merger until 2020*

Source: New Financial analysis

- The consolidation at the exchange group / operator level in Europe over the past 20 years points to a potential solution to address the patchwork of European stock markets. The charts on the left divide markets into large and small markets (the top 15 by market value versus the bottom 16) and whether they are part of a wider exchange group (eg. Euronext or Nasdaq) or a standalone independent exchange.
- On virtually every measure, exchanges that are part of an umbrella group that operates more than one stock market (the blue columns) are deeper and perform better in terms of IPO activity than standalone exchanges (the grey columns).
- While large exchanges in groups perform better on every metric compared with large independent exchanges, this group effect is most pronounced for smaller exchanges: small exchanges that are part of a larger group generate three times the value of IPOs relative to GDP as small independent exchanges (chart ii), three times the number of IPOs per million of population (chart iii) and four times the value of IPOs relative to population (chart iv). They are also significantly more liquid (with trading of 70% of market cap vs 27%). This suggests that folding smaller exchanges into larger groups could be a significant step to accelerate growth in European markets.

WHAT CAN WE DO ABOUT IT? – SOME SENSIBLE PROPOSALS

There is a lot of very positive work being conducted by EU regulators and national authorities to accelerate the growth of European equity markets as part of and alongside the capital markets union initiative. Here are some of the areas which we think should be a particular focus for the foreseeable future. Many of these themes are likely to meet more resistance in national capitals than in Brussels: ultimately national governments need to make a clear political decision as to whether they want bigger and better capital markets or not.

> Oiling the wheels

When it comes to equity markets in Europe, the ultimate aim should be to make it easier for companies to go public and to stay public; easier for investors across Europe to invest in them; and easier for intermediaries to trade in them. Improving and simplifying the prospectus and listing regime; reviewing the impact of Mifid II and perhaps applying a more proportionate regime for smaller markets; focusing disclosure and governance regimes on high standards not high volumes of rules; and consolidating corporate information into a 'EuroEdgar' will all help. Particular focus could be placed in on removing he many hidden (and not so hidden) national barriers for investors, intermediaries and exchanges.

> Towards centralised supervision

The aspiration of a single rulebook across the EU is noble but the only good news about Brexit is that there are now only 27 different countries implementing their version of the single rulebook instead of 28. Efforts to improve supervisory convergence are welcome but the tiniest national differences in implementation effectively create 27 different markets. Over time the EU could move towards a single markets supervisor for large / international firms: a single supervisor would not create a capital markets union on its own, but you cannot have a genuine capital markets union without one.

> Tax and incentives

Most people respond rationally to incentives: if you want more companies using equity funding and more people investing in it, it would help to incentivise them to do so. While tax is a national prerogative, addressing the tax differential between equity and debt funding through equity tax credits, a notional interest deduction (as in Belgium), or limiting the tax deductibility of debt funding, would provide a big boost to equity markets. Simplifying capital gains tax and withholding taxes would incentivise more long-term and more cross-border investment.

> The C in CMU

You cannot have deep capital markets without deep pools of long-term capital in the form of pensions, insurance and direct retail investments. It is encouraging to see that the latest version of the CMU action plan includes a system for monitoring the real level of sustainability in pensions systems across the EU. The single biggest catalyst for CMU would be the wider adoption of funded pensions systems across the EU, ideally through mandatory workplace schemes or auto-enrolment.

> More consolidation

This report has (we hope) painted a stark picture of the basic problem: that there are too many (small) stock exchanges and post-trade infrastructure providers in Europe and not enough genuine competition between them. Over the past 20 years, a lot of progress has been made in terms of consolidation at the exchange group level, but more attempts at consolidation have been blocked than approved. The benefits of larger exchange groups are clear: regulators and politicians at a national and EU-wide level should work closely together to encourage more of it.

WHAT CAN WE DO ABOUT IT? – SOME MORE RADICAL SUGGESTIONS…

We have long argued that capital markets union is a long-term game and that the first five to 10 years of the initiative are all about laying the foundations for the next few decades. That is not the same as sitting back and waiting for the current set of initiatives to gradually take effect. We think there is a strong case for more radical thinking and more radical solutions that address the root cause of the problem (too many small exchanges and not enough competition between them) instead of adjusting the detail of the regulatory framework around them. Here is an outline of some more radical suggestions:

> A vision for the future?

It may help to start with a clear vision of where we want to get to. If Europe wants to compete on the global stage and maximise the role that capital markets can play in supporting the wider economy, an appropriate vision might be a world with three, four or five large groups of competing exchanges in Europe. Each of these groups would not only merge the exchanges within them but also the markets they operate, creating a series of genuine single markets. Each country in these groups would have an exchange access point that reflected the needs of the local markets but which fed directly into the bigger market within each group (in much the same way as big technology firms have local access points). These big single markets would compete with each other for listings and trading on service, technology and price rather than accident of geography: every listed company would make a free and active decision over which of these exchange groups to choose for its listing; every stock in each group would tradeable on every market in every group; and this trading would feed in to three or four open access CCPs and CSDs that supported any and all exchange groups on the same terms.

> Consolidation, consolidation, consolidation

That may sound far-fetched but we are heading in that direction. Euronext and Nasdaq have made enormous progress in consolidating exchange operators. The real prize (that is beyond the remit of exchanges) is consolidation of the underlying markets whereby the constituent markets within any exchange group operate as a genuine single market, with a single rulebook, single disclosure and governance regime, and single tax treatment. The nationality of any listed company would effectively become irrelevant. In addition to more consolidation, exchanges should actively engage in alliances, share trading systems and infrastructure, and potentially move to an airline-style code-sharing system that would enable more seamless access for companies, investors and intermediaries in one market to other markets within the same alliance.

> Political commitment

When I first started writing about exchanges more than 25 years ago, it was a standard joke in exchange circles that every country wanted to have its own airline, its own currency and its own stock exchanges. Things have moved on a bit with airlines and currencies, but in many countries there is an understandable political attachment to having your own stock exchange. However, in a world where scale matters, it is hard to see how exchanges and stock markets can perform their basic function effectively for as long as countries retain this political attachment,

> More competition

Most competition today between exchanges in Europe is episodic and arguably in the wrong places. While Mifid introduced much-needed competition between exchanges in trading, most of that competition is between incumbent exchanges and more recent challengers like Aquis, Cboe Europe and Turquoise, and not between incumbent exchanges themselves. More than 95% of EU companies going public do so on their local exchange, and most exchanges a quasi monopoly in their local market, often reinforced by rules on listings and indices. Meanwhile, more than 20 years after the Giovannini Group first reported on post-trade infrastructure in Europe, genuine openness and limited competition.

About New Financial

New Financial is a think tank that believes Europe needs bigger and better capital markets to help drive growth and prosperity.

We think this presents a huge opportunity for the industry and its customers to embrace change and rethink how capital markets work. We work with market participants and policymakers to help make a more positive and constructive case for capital markets around four main themes: unlocking capital markets; rebuilding trust; driving diversity; and the impact of Brexit.

We are a social enterprise funded by institutional membership from different sectors of the capital markets industry. For more information on our work, please contact us:

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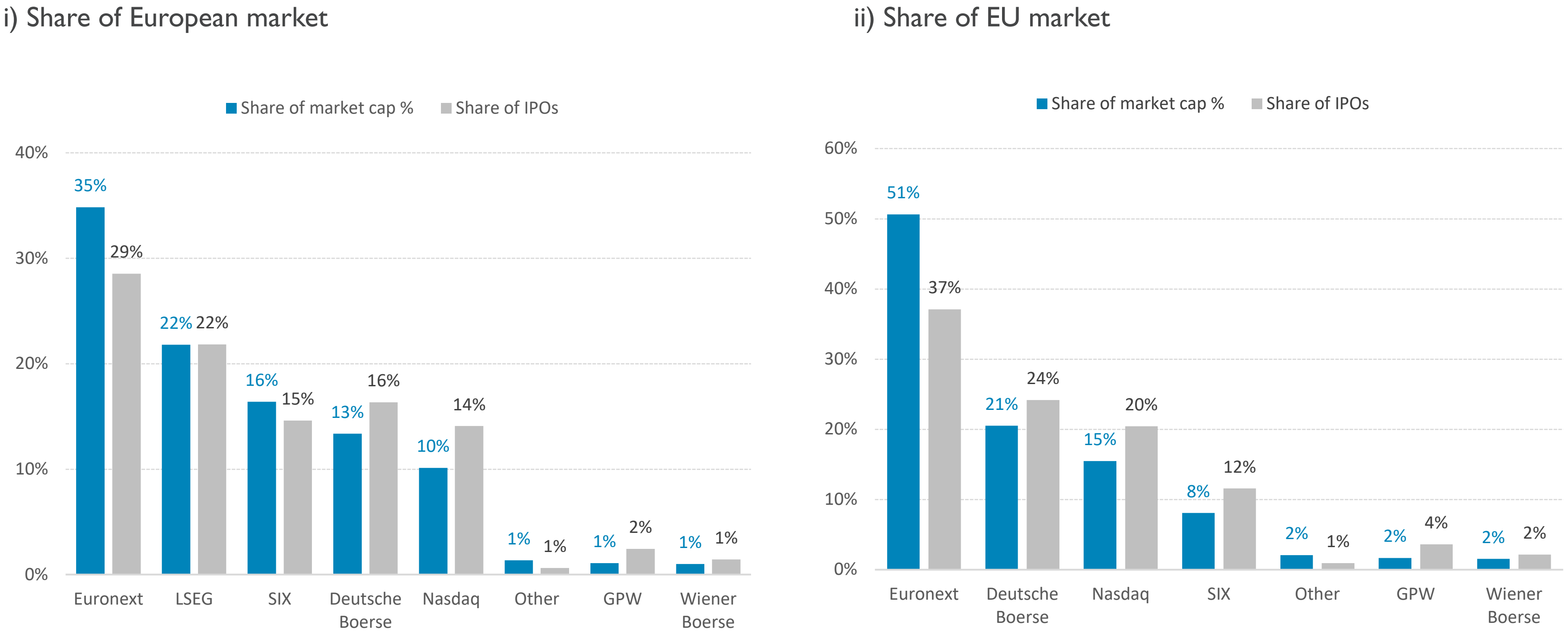
Fig.11 A platform for change?

European and EU market share by exchange group of market capitalisation and domestic IPO activity (2015 to 2020)



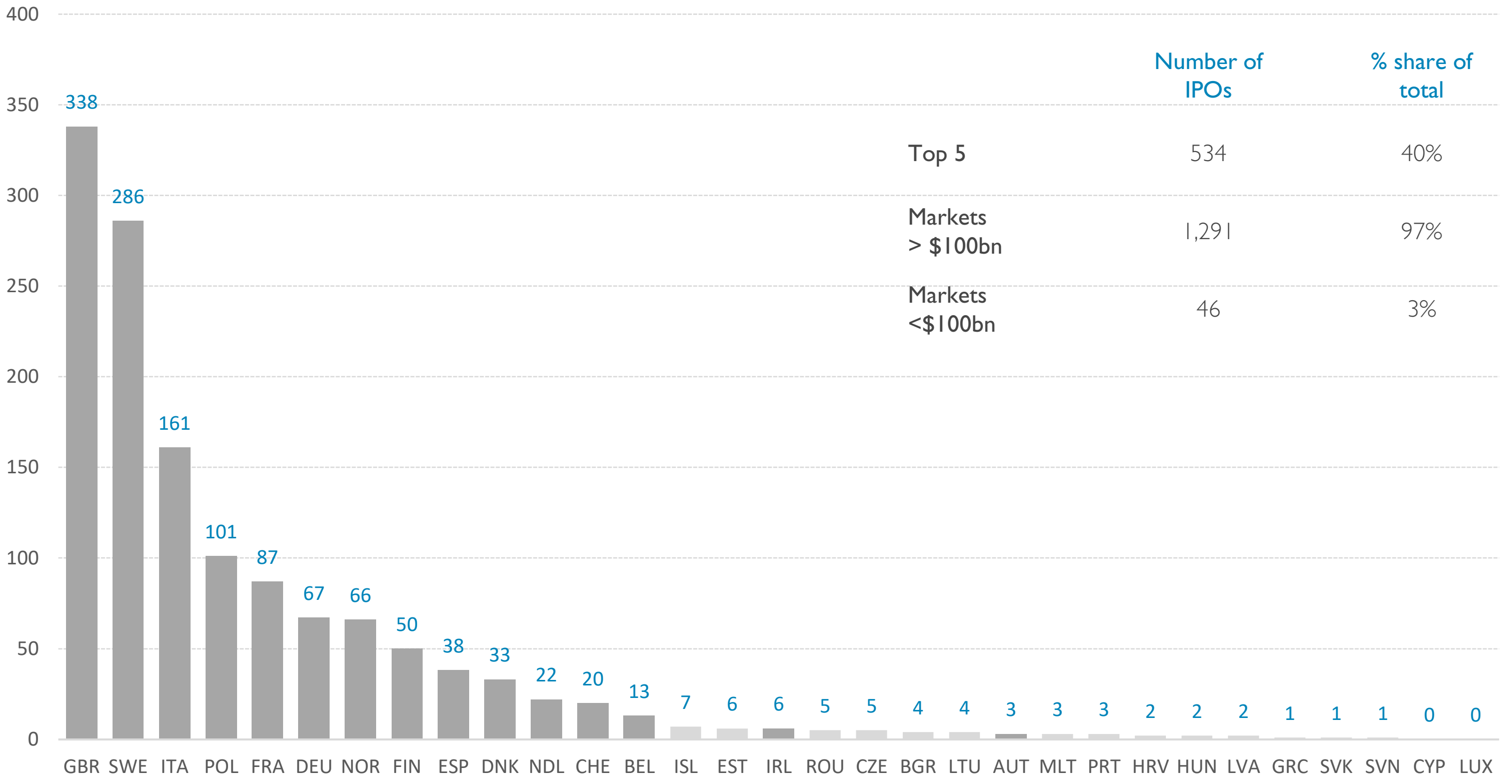
Source: New Financial analysis of data from Dealogic, WFE, FESE and individual exchanges

- The consolidation of stock exchange operators over the past 20 years has led to a significant concentration of European stock markets and IPO activity in the hands of a small number of groups. The chart on the left above shows the combined share of exchanges groups in Europe (across our sample of 31 countries), and the charts on the right shows their market share in the EU. Euronext, which operates seven exchanges, is the dominant force with a 51% share of EU market capitalisation and 37% share of IPOs. The top four groups between them control 95% of EU market value and 93% of IPOs.
- As a thought experiment, imagine if you consolidated the 11 smaller exchanges to the right of each chart (under Other, GPW and Wiener Boerse) into one large new group or into existing groups. They add up to 6% of EU market value and 7% of IPOs. Most of these exchanges are in Central, Eastern and Southern Europe, and could merge into regional groups, or potentially converge under GPW (the Polish exchange group), Wiener Boerse or Deutsche Boerse. Alternatively, a big group like Euronext or Nasdaq might absorb different exchanges. This would bring the benefits of being part of a larger group (see page 14), and would be a big step towards significantly reducing the fragmentation of European stock markets.

APPENDIX 2 – THE EUROPEAN IMPO MARKET

Fig.12 The concentration effect

The number of domestic IPOs in European countries 2015 to 2020



	Number of IPOs	% share of total
Top 5	534	40%
Markets > $100bn	1,291	97%
Markets <$100bn	46	3%

Source: New Financial analysis of Dealogic data

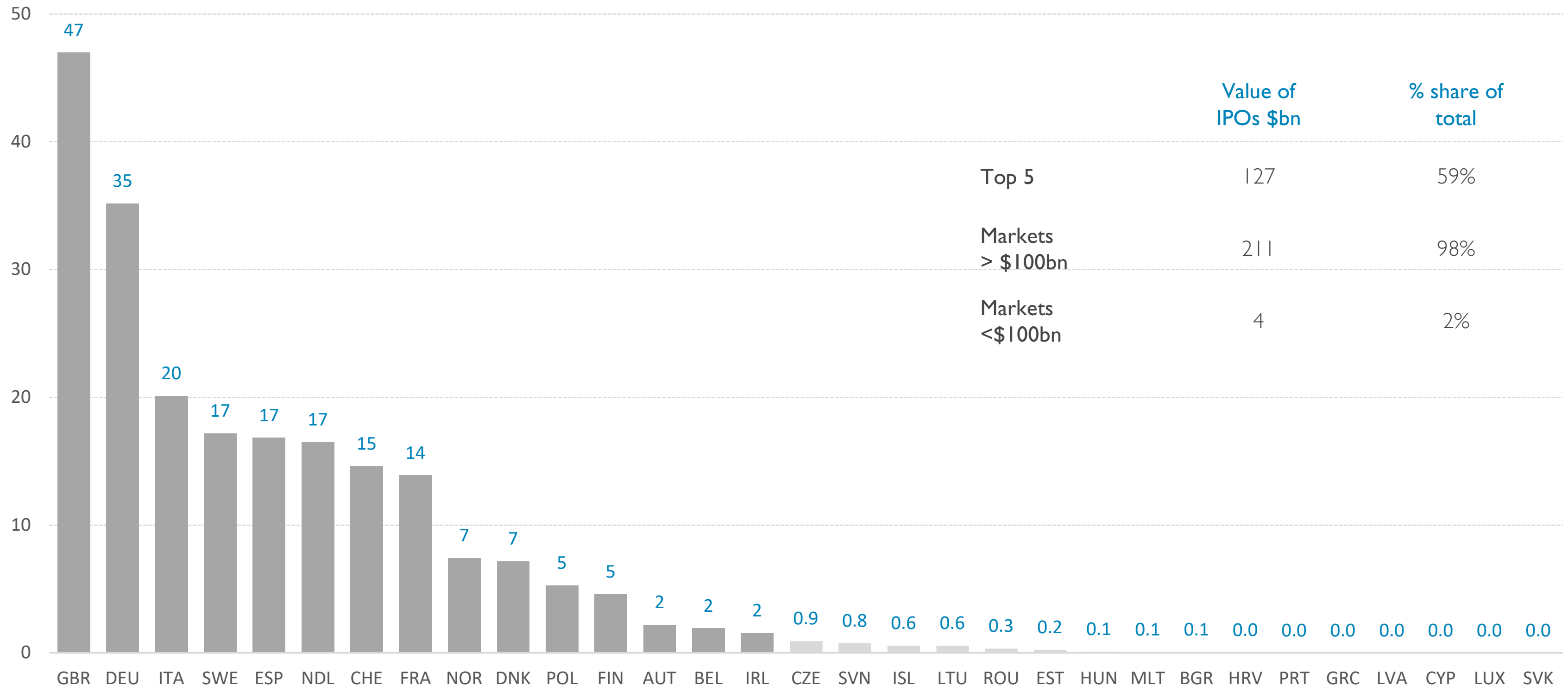
- This chart shows the high level of concentration in IPO activity in Europe in a relatively small number of markets. Countries with a market capitalisation of more than $100bn are shaded in dark grey, and those with a market value of less than $100bn are shaded light grey. From 2015 to 2020 there were just over 1,300 domestic IPOs in Europe (that is, a French company listing in France and so on) across our sample of 31 countries.

- The five largest stock markets by market capitalisation accounted for 40% of all of these IPOs; the 15 countries with a market value of more than $100bn accounted for 97% of these IPOs, while the smallest 16 countries by market value generated just 46 IPOs between them or just over 3% of the total.

- On the right hand side of the chart you can see the long tail of countries by the number of IPOs in this six year period. The 15 countries to the right of Ireland hosted an average of less than one domestic IPO a year.

Fig.13 The concentration effect

The value of domestic IPOs in European countries 2015 to 2020, $bn



	Value of IPOs $bn	% share of total
Top 5	127	59%
Markets > $100bn	211	98%
Markets <$100bn	4	2%

Source: New Financial analysis of Dealogic data

- This concentration effect is even more pronounced when it comes to the value of IPO activity. Again, countries with a market capitalisation of more than $100bn are shaded in dark grey, and those with a market value of less than $100bn are shaded light grey. From 2015 to 2020 domestic IPOs in Europe raised $215bn across our sample of 31 countries.

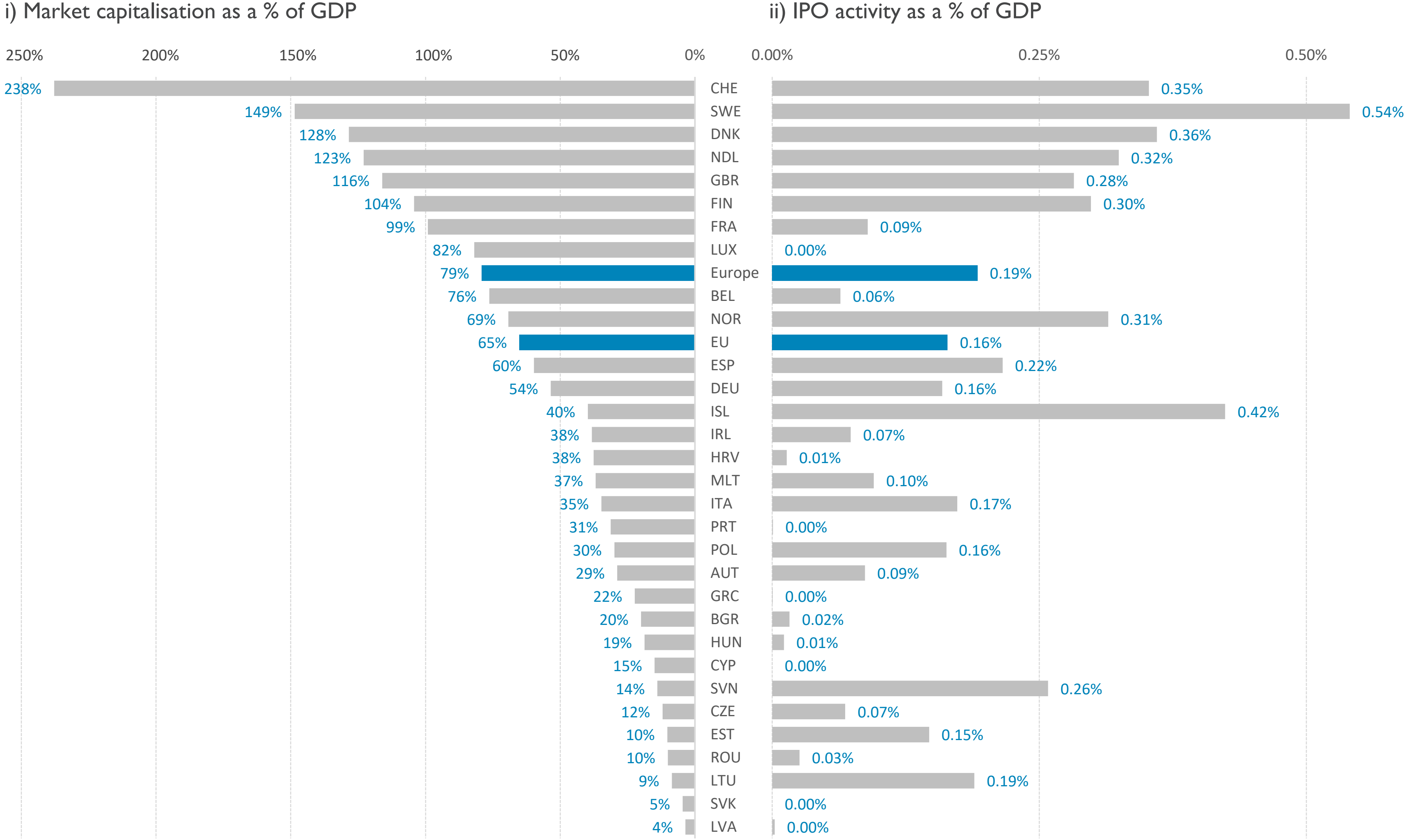
- The five biggest countries by stock market value accounted for nearly 60% of this activity; the 15 countries with a stock market larger than $100bn represented 98% of IPO activity – and the 16 countries with stock markets smaller than $100bn generated just $3.7bn in domestic IPOs between them over this six year period. That translates into an average of just $40m per country per year.

- On this metric alone, it seems pretty clear that small stock markets (with a value of less than $100bn by our definition) are struggling to perform their core role of helping companies raise capital from investors.

APPENDIX 4 – THE EUROPEAN EXCHANGE LANDSCAPE

Fig.14 The depth of European stock markets

Market capitalisation and domestic IPO activity as a % of GDP across Europe (average from 2015 to 2020)



Source: New Financial analysis of data from Dealogic, WFE, FESE and individual exchanges