EURONEXT EQUITIES: Liquidity Analysis

Demystifying the liquidity gap between European and US equities

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European volumes are closer to the US than they appear

A widely held belief in global finance is that the US equity market reigns supreme in terms of liquidity, surpassing other markets by a wide margin. By contrast, European markets are often viewed as secondary. However, upon closer examination of equity flows in both regions, and taking into account the complexity associated with the concept of liquidity, the presumed dominance of the US in equity liquidity is not as clearcut as it might seem.

Methodology

- Market capitalisation segments are categorised as follows:
  - Small-Caps: €250m ≤ market capitalisation < €1bn
  - Mid-Caps: €1bn ≤ market capitalisation < €5bn
  - Large-Caps: €5bn ≤ market capitalisation < €100bn
  - Mega-Caps: €100bn ≤ market capitalisation
- Market capitalisation data is sourced from independent data provider Bloomberg.
- Market capitalisation data is the average total market cap (not the free-float market cap) for the year 2023 from Bloomberg using the following formula: BDH (*Company Ticker*, "CUR_MKT_CAP", "1/1/2023", "12/31/2023", "Currency", "EUR", "Period", "CY").
- Turnover data is taken from 1 January 2023 to 31 December 2023.
- Turnover data is sourced from independent provider BMLL Technologies, and is aggregated to cover all value traded in 2023. This data includes On-Book, Off-book, On-exchange, OTC, SI, Dark and Auctions turnover.
- In this study, 'Europe' is understood to mean the companies listed on the following European markets: all Euronext Markets (Amsterdam, Brussels, Dublin, Lisbon, Milan, Oslo, Paris); Deutsche Börse; Bolsas y Mercados Españoles; Nasdaq Nordic (Stockholm, Helsinki, Copenhagen); London Stock Exchange. The 'US' is understood to mean the companies listed on the following US markets: Nasdaq; New York Stock Exchange.
- All data has been harmonised to € to provide a relevant comparison.

Executive summary

- At aggregate level, the Average Daily Value Traded (ADVT) in US looks **4.4x** higher than in Europe (€288bn vs €65bn in 2023) combining all companies above €250m market cap.
- However, the liquidity gap is driven mainly by the 79 Mega-Capitalisation stocks in the US which account for over 50% of US turnover, while Europe has only 20 Mega-Caps listed.
- When measuring the value traded relatively to the different market capitalisation segments, the ADVT per single company yields interesting results:
  - Average Large-Cap stock has ADVT of €146m in US vs €116m in Europe (only **1.3x gap**)
  - Average Mid-Cap stock has ADVT of €23m in US vs €12m in Europe (only **2.0x gap**)
- Turnover Velocity metrics (value traded divided by market capitalization) also confirm the robust liquidity in Europe compared to the US.

1. Context

The US equity markets have always been perceived as the largest globally, and the aggregate turnover numbers confirm it. Although liquidity appears to be straightforward, it remains a complex measure which benefits from being put in context.

To better understand the liquidity of the European and US markets, **we have selected companies matching the following criteria**:

- Companies with a market capitalisation above €250 million on average in 2023;
- Companies listed on the following marketplaces: Europe (Euronext [Amsterdam, Brussels, Dublin, Lisbon, Milan, Oslo, Paris], Deutsche Börse, Bolsas y Mercados Españoles, Nasdaq OMX [Stockholm, Helsinki, Copenhagen], London Stock Exchange) or the US (Nasdaq, New York Stock Exchange).

Looking at aggregate volumes, we can clearly see what is behind the assumption that liquidity is much greater in the US than in Europe:

	US	Europe
Number of listed companies above €250m market cap	2,879	1,599
Average Daily Value Traded (ADVT) in 2023	€288 bn	€65 bn

This table reflects the significant gap that exists between US and European equities trading. In fact, **the turnover in euros for the year 2023 was 4.4 times higher in the US than it was in Europe**. **However, drawing conclusions from these aggregate numbers might be misleading.** The inherent issue with these raw figures is that they lack the granularity to demonstrate how such liquidity is distributed.

A major difference between Europe and the US lies in the distribution of listed companies:

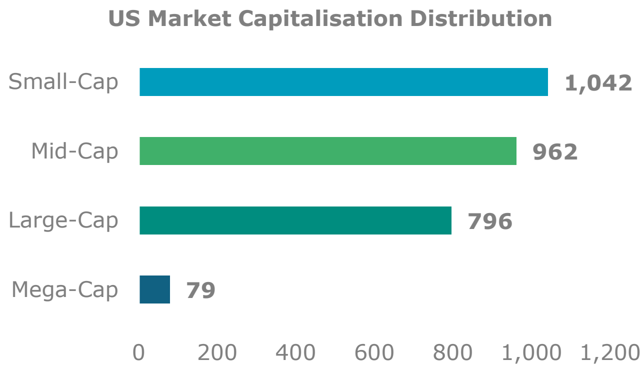
- The US, in our samples, encompasses almost twice the number of companies that are listed in Europe (2,879 vs 1,599).
- Another factor to take into account is the size of companies that qualify for this sample. We should be wary therefore of using aggregate value traded as a proxy to measure liquidity, as €1 billion value traded (on a company valued at €1 trillion market cap) is not necessarily an indicator of higher liquidity than €100 million value traded (on a smaller company valued at €250 million market cap).

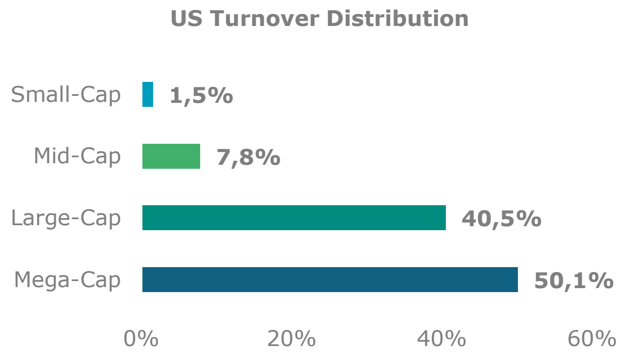
In the following sections, we dive into the dynamics of liquidity to depict a more representative picture of the gap between European and US liquidity.

2. Linking the equity landscape to the size of listed companies

To gain a comprehensive understanding of liquidity dynamics in Europe and the US, it is imperative to **categorise the companies according to their market capitalisation**.

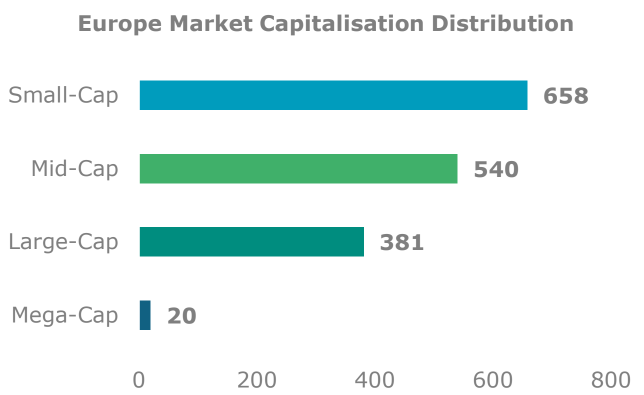
United States:

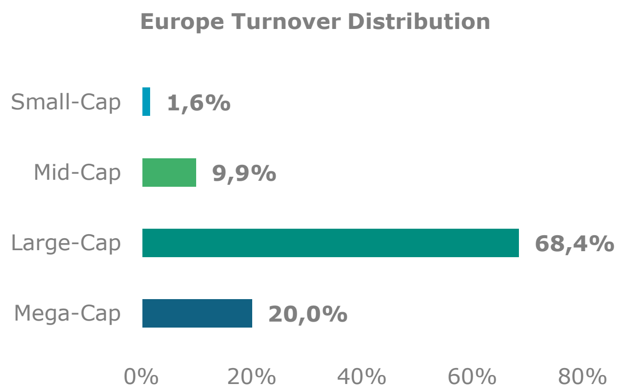




The data underscores the significant influence of Mega-Cap companies on the overall liquidity landscape in the US. Despite constituting just 3% of the sample, **79 Mega-Cap companies (market cap > €1bn) account for over 50% of the US turnover**. This highlights the disproportionate reliance of US liquidity on Mega-Caps, which creates an exaggerated impression of superiority within the liquidity spectrum.

Europe:





Conversely, the equity liquidity landscape in **Europe exhibits a greater emphasis on Large-Caps (market cap between €5bn and €100bn), with 381 companies accounting for over 68% of European turnover**.

These results align with the economic dynamics of the respective regions: the US fosters a series of big-tech companies and large household names with economic success worldwide, while Europe fosters Large-Cap and Mid-Cap companies across more diversified sectors.

Overall, the skew in the data validates the **need to assess liquidity by means of market capitalisation categories**, allowing us to compare two very different trading ecosystems and draw more meaningful comparisons.

3. Average Daily Value Traded across market capitalisation segments

To be able to assess the liquidity landscape effectively and compare geographies, we can analyse the Average Daily Value Traded (ADVT) using the two following measures:

$$Aggregated\ ADVT = \frac{annual\ value\ traded\ on\ a\ particular\ market\ capitalisation\ segment}{number\ of\ trading\ days}$$

$$ADVT\ per\ Company = \frac{Aggregated\ ADVT\ on\ a\ particular\ market\ capitalisation\ segment}{number\ of\ companies\ included\ in\ such\ market\ capitalisation\ segment}$$

$Aggregated\ ADVT$ combines the value traded across all companies in a specific market capitalisation segment, while $ADVT\ per\ Company$ normalizes the value traded computing the volumes of an average company in such market capitalisation segment.

$Aggregated\ ADVT$: **What is the average daily turnover aggregating <u>all the companies</u> included in a specific market capitalisation segment?**

	Mega-Cap (> €100bn)	Large-Cap (€5bn - €100bn)	Mid-Cap (€1bn - €5bn)	Small-Cap (€250m - €1bn)
United States	€144bn	€116bn	€23bn	€4bn
Europe	€13bn	€44bn	€6bn	€1bn
Ratio (or Liquidity Gap)	**x11.1**	**x2.6**	**x3.5**	**x4.2**

$ADVT\ per\ Company$: **What is the average daily turnover of <u>the average company</u> included in a specific market capitalisation segment?**

	Mega-Cap (> €100bn)	Large-Cap (€5bn - €100bn)	Mid-Cap (€1bn - €5bn)	Small-Cap (€250m - €1bn)
United States	€1,824m	€146m	€23m	€4m
Europe	€647m	€116m	€12m	€2m
Ratio (or Liquidity Gap)	**x2.8**	**x1.3**	**x2.0**	**x2.7**

The ratio (or liquidity gap) reflects the US value traded divided by the European value traded

There is a big disparity between the two tables. For instance, in the Large-Cap segment:

- $Aggregated\ ADVT$ in the US is 2.6 times larger than in Europe (€116bn vs €44bn), also because the US has more Large-Cap companies listed than Europe (796 vs 381).
- However, the $ADVT\ per\ Company$ for Large-Cap stocks in the US is only 1.3 times larger than in Europe.

The $ADVT\ per\ Company$ metric highlights that, while the US liquidity is still above the European one, **the liquidity gap between Europe and US at single-company level (ratio of x1.3 and x2.0 for Large-Caps and Mid-Caps respectively) is much narrower** than it appears to be at aggregate market level (x4.4 as displayed in the 'Context' section).

4. Turnover Velocity is similar across Europe and the US

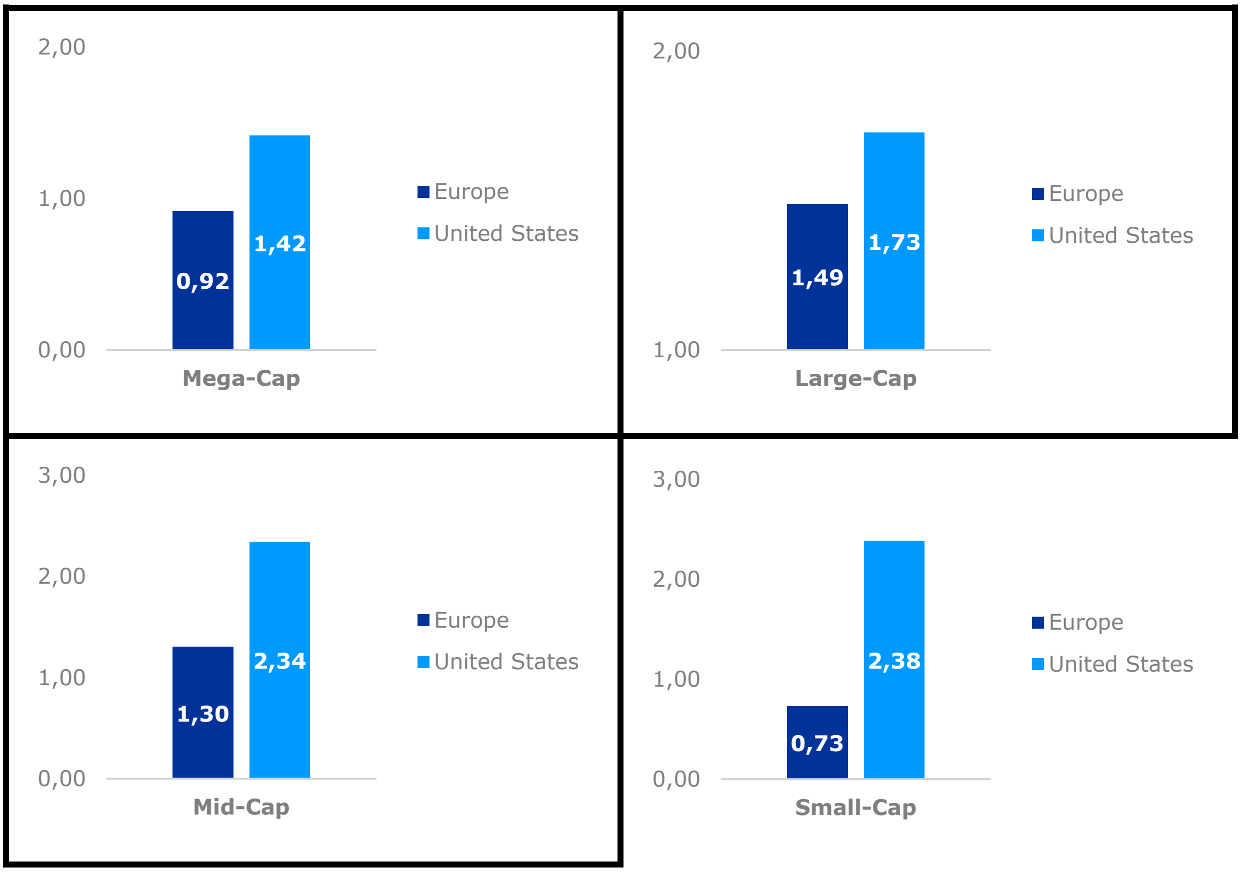
By adjusting the liquidity across market capitalisation segments, in the previous section we were able to depict a more meaningful comparison of volumes across Europe and US.

To take the relative size of companies into account, **we analyse turnover velocity across each market capitalizations category** as a good proxy to assess the liquidity of each group. The $Turnover\ Velocity$ per market capitalisation is defined as follows:

$$Turnover\ Velocity\ = \frac{(\sum value\ traded\ )\ of\ the\ securities\ in\ a\ market\ capitalisation\ segment}{(\sum total\ market\ capitalisation)\ of\ the\ securities\ in\ such\ segment}$$

This measure displays the daily value traded of a company for each € of market capitalisation. Measured this way, higher velocity suggests that the security is more liquid.

Computation of the $Turnover\ Velocity$ with 2023 data yields the following results:



It is noticeable that the results are in line with what was seen previously:

- European securities display high liquidity again in the Large-Cap segment, with **turnover velocity in Europe (1.49) being very close to the US (1.73)**
- Adjusting for the size of companies, also in the Mega-Cap segment there is a limited liquidity gap between Europe (turnover velocity of 0.92) and the US (1.42)
- The major discrepancy is among Small-Cap stocks (0.73 in Europe vs 2.38 in US) mainly because the Russell 2000 index is largely replicated by investors globally, inflating the relative turnover velocity for the US in this category.

5. Conclusion

Focusing on Large-Cap and Mid-Cap stocks (which represent nearly 80% of European equity turnover), US equity markets no longer look 5 times more liquid than Europe. Normalising by market cap, the liquidity gap between Europe and US is in a range between x1.2 and x2.0

		Mega-Cap (> €100bn)	Large-Cap (€5bn - €100bn)	Mid-Cap (€1bn - €5bn)	Small-Cap (€250m - €1bn)
Aggregated ADVT	**US**	€144bn	€116bn	€23bn	€4bn
	Europe	€13bn	€44bn	€6bn	€1bn
	Ratio US/EU	**x11.1**	**x2.6**	**x3.5**	**x4.2**
ADVT per Company	**US**	€1,824m	€146m	€23m	€4m
	Europe	€647m	€116m	€12m	€2m
	Ratio US/EU	**x2.8**	**x1.3**	**x2.0**	**x2.7**
Turnover Velocity	**US**	1.4	1.7	2.3	2.4
	Europe	0.9	1.5	1.3	0.7
	Ratio US/EU	**x1.5**	**x1.2**	**x1.8**	**x3.3**

In this study, we have interpreted the significance of the data by contextualising it within the characteristics of the relevant markets and metrics. Our observations suggest that **while European equity trading may seem distant from the US in terms of liquidity, it actually operates within a comparable range**.

This is an encouraging finding particularly considering the challenges that Europe faces in nurturing liquidity due to different currency, regulatory framework, and accounting standards.

Despite these disparities, European equity capital markets demonstrate resilience and efficacy in facilitating capital flows to support economic growth within the region. At Euronext, as we commemorate the 10-year milestone since Euronext's IPO in 2014, we take pride in our role as a catalyst for shaping the future of capital markets.

As we embark on 2024, a pivotal year that sees the launch of Euronext's dark pool through Euronext Mid-Point Match, we are poised to further enhance European liquidity. The new midpoint trading functionalities complement the existing infrastructure across the seven European markets served by Euronext.

With a decade of experience since our IPO, and 24 years since our creation, Euronext reaffirms its commitment to advancing capital markets and driving economic progress.