

IMPACT OF TICK SIZE REGIME PROVIDED BY MiFID II ON THE LIQUIDITY AND SPREADS OF SHARES

In response to the consultation launched by the European Commission aiming at “Building a proportionate regulatory environment to support SME listing”, AMAFI and one of its members conducted a study with regard to “the impact that the minimum tick size regime provided by MiFID II would have on the liquidity and spreads of shares”.

The limited time which has elapsed since the implementation of MiFID II / MiFIR, makes it difficult to draw definitive conclusions. Still, it can be considered that (i) the impact of the implementation of the new tick size regime can be reasonably measured by comparing similar situations during short periods just before and after the implementation date and that (ii) the depth of the sample considered hereinafter is sufficient to provide a good level of comfort with regards to the conclusions of the study.

Executive summary

The implementation of MiFID II / MiFIR tick regime led to significant changes for European shares, with only 24% of unchanged tick sizes on the 3rd of January, and a trend clearly orientated towards the increase of tick sizes (55% of shares).

Within that global context, shares with a market capitalisation below EUR 1bn have been significantly more subject to (i) change in the tick size (84%), (ii) decreases of tick sizes (26%) and (iii) extreme changes in tick sizes (25%) than shares with a capitalisation above EUR 1bn (64%, 15% and 9% respectively).

From a bid-offer spread perspective, the new tick size regime seems to have had a globally positive impact for small capitalisation shares:

- The bid-offer spread decreased for a majority of small capitalisation shares,
- The decrease in tick size did effectively remove a constraint on the bid-offer spread for the targeted small capitalisation shares,
- Conversely, the increase in tick size appears not to have created a significant new constraint on the bid-offer spread for the targeted small caps.

With regards to available liquidity, the implementation of the new tick size regime confirmed the “classic” strong correlation between the liquidity available at the best bid / offer and the level of tick sizes. It also appears that small capitalisation shares have experienced an increase in available liquidity at the beginning of 2018, on the back of factors unrelated to the change in tick sizes. The combination of both factors led to a general increase in the available liquidity for small caps, with two thirds of shares with a market capitalisation below EUR 200m experiencing an increase in the liquidity available at the best bid / offer.

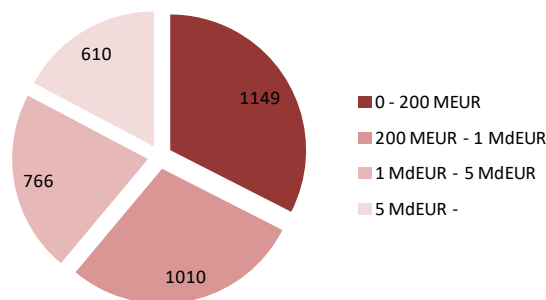
Finally, it appears that the implementation of the new tick size regime was overall neutral with regard to the trading volume for shares with a market capitalisation below EUR 1bn.

I. Data and sample

The study has been based on data related to a universe of 3,535 listed company shares (excluding ETFs, ETCs, funds, etc.) with a primary listing in the European Union.

Each share was then associated to one of the following capitalisation buckets: (i) below EUR 200m, between EUR 200m and EUR 1bn, (iii) between EUR 1bn and EUR 5bn and (iv) above EUR 5bn. In terms of market capitalisation range, the sample had the following composition:

Split of the initial sample of 3,535 shares
by market capitalisation range



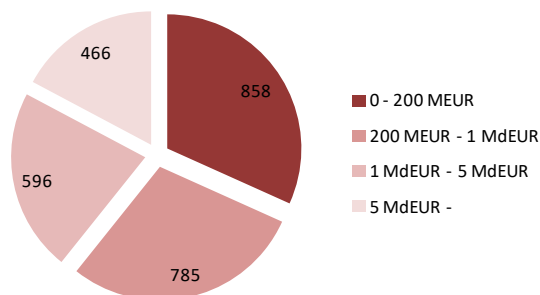
For each share, the following daily data has been retrieved for the period running from the 1st of November 2017 to the 6th of February 2018:

- The tick size,
- The average bid-offer spread for the day, eg the average relative spread between the best bid and the best offer,
- The average first limit size, eg the average size of the cumulated orders at the best bid and at the best offer,
- The traded volume (on lit markets) for the day, eg the amount of executed transactions over the day.

In order to isolate the impact of the new tick size regime, the study has been focused on those shares for which the tick size remained stable over November and December 2017, and then remained stable from the 3rd of January 2018 (eg MiFID II / MiFIR implementation date) till the beginning of February 2018.

This led to a reduced sample of 2,705 shares, with a split by capitalisation bucket quite similar to the initial one:

Split of the final sample of 2,705 shares
by market capitalisation range



II. The evolution of tick sizes

For the shares in the 2,705 shares sample, and for each capitalisation bucket, the charts below provide the proportion of shares for a given change of tick size due to the implementation of MiFID II / MiFIR regime.

- Shares for which the tick size remained stable over the 3rd of January are indicated in grey.
- Shares for which the tick size increased are in red, shares for which it decreased are in blue. The brighter the color, the more significant the change.



Several conclusions can be drawn from this simple counting:

- The proportion of shares for which the tick size remained unchanged is significantly lower for market capitalisations below EUR 1bn (16%) than for shares with a higher market capitalisation (36%).
- The proportion of shares for which the tick size decreased is materially higher for market capitalisations below EUR 1bn (26%) than for shares with a higher market capitalisation (15%).
- The proportion of shares with an extreme change in the tick size (eg multiplied or divided by a 10 factor or more) is significantly higher for market capitalisations below EUR 1bn (25%) than for shares with a higher market capitalisation (9%).

As a summary, amongst market capitalisations below EUR 1bn, a significantly higher proportion of shares has been subject to (i) changes in their tick size, (ii) decreases of tick sizes and (iii) extreme changes in tick sizes than amongst shares with a market capitalisation above EUR 1bn.

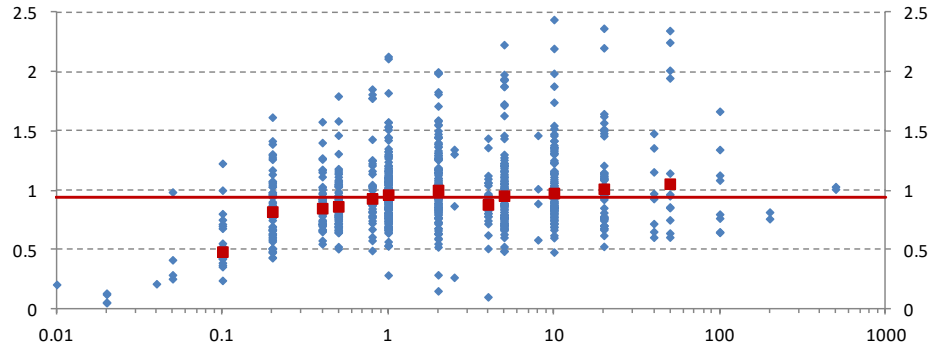
III. The evolution of bid-offer spreads

In each of the charts below:

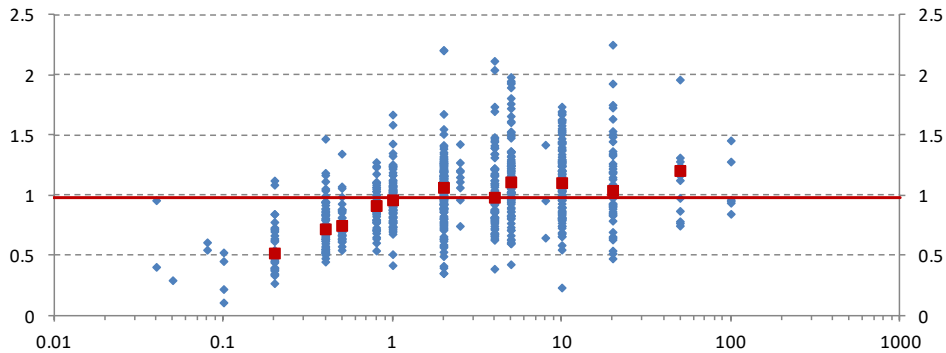
- The X axis represents the ratio between the tick size in January-February 2018 and the tick size in November-December 2017 (the “tick size ratio”),
- The Y axis represents to the ratio between the average bid-offer spread in January-February 2018 and the average bid-offer spread in November-December 2017 (the “bid-offer spread ratio”),
- Each blue dot provides the position of a given share,
- Each red dot provides the median value for the given level of tick size ratio. Median values have been computed only when at least 10 stocks share the same 2018 / 2017 tick ratio,
- The red line provides the median value for the whole sample.

The below charts provide the distribution of the evolution of bid-offer spreads depending on the evolution of the tick size, and on the market capitalisation of the share.

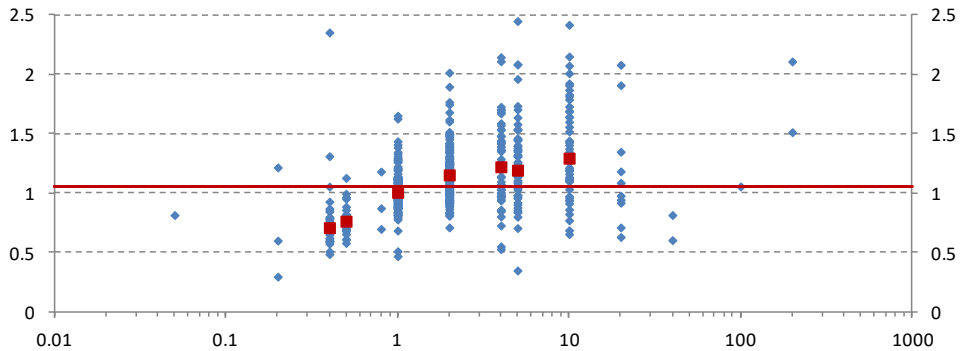
Average bid-offer - spread Jan-Feb 2018 / average bid-offer spread Nov-Dec 2017
 Market capitalisation below EUR 200m



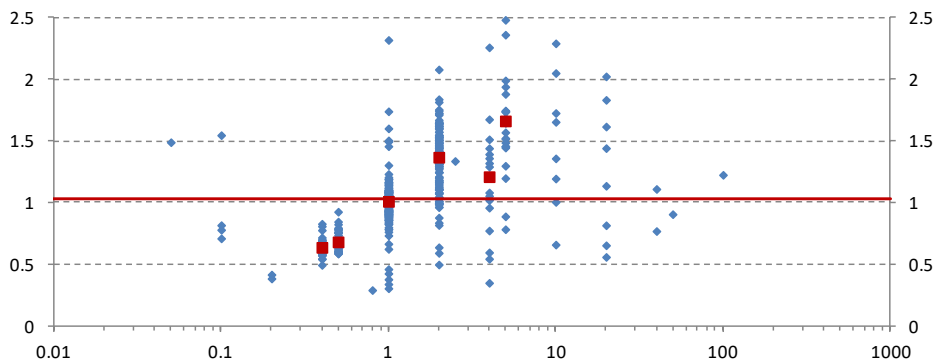
Market capitalisation between EUR 200m and EUR 1bn



Market capitalisation between EUR EUR 1bn and EUR 5bn



Market capitalisation above EUR 5bn



Tick Jan-Feb 2018 / Tick Nov-Dec 2018 (logarithmic scale)

Several features can be noticed on these charts:

- For all capitalisation buckets, when the tick size was left unchanged by MiFID II / MiFIR, the median bid-offer spread ratio stands at 1. In other terms, half of the shares have their bid-offer spread increasing and half have their bid-offer spread decreasing. This confirms that there was no external factor, apart from the change in tick size, driving changes in the bid-offer spread.
- For all capitalisation buckets, the bid-offer spread ratio stands below 1 for the majority of shares that had their tick size reduced. This tends to indicate that for these shares, the tick size was effectively constraining the bid-offer spread, so its reduction under the MiFID II / MiFIR regime permitted the reduction of the spread.
- It can be noticed that, for a given reduction in the tick size ratio (0.5 ratio for instance), the decrease in the bid-offer spread ratio is more pronounced for shares with a higher capitalisation. This indicates that the tick was more effectively constraining the spread for these shares than for shares with a lower capitalisation.
- For shares with a market capitalisation below 1bn, and even more clearly for market capitalisations below EUR 200m, the increase of bid-offer spreads had no obvious impact on the evolution of the bid-offer spread. Conversely, for stocks with a higher market capitalisation, and even more clearly for market capitalisations above EUR 5bn, the increase in the tick size led to a marked increase in the bid-offer spreads. This indicates that for shares with a market capitalisation above EUR 1bn, the increased tick size has created a new constraint on the market micro-structure, while it hasn't for shares with a lower market capitalisation.
- The global median bid-offer spread ratio stands around 1 for all market capitalisation buckets. This tends to indicate that the change in tick size had a balanced effect on bid-offer spreads, with virtually as many shares having their bid-offer spread increasing as those having their bid-offer spread decreasing in each bucket.
- It can be noticed that the global median stands below 1 (at 0.94) for shares with a capitalisation below EUR 200m, and that it increases with the market capitalisation, to stand at 1.03 for capitalisations above EUR 5bn. This is mostly linked to the lower proportion of tick size increases for higher capitalisations (see above).

As a conclusion, the new tick size regime seems to have had a globally positive impact on the bid-offer spread for small companies' shares:

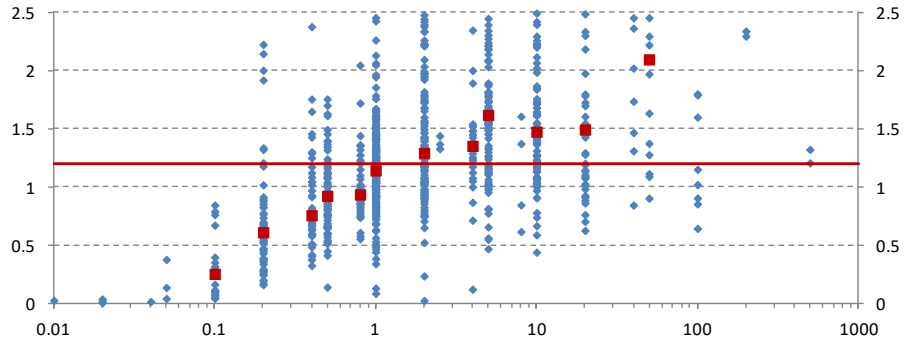
- **The bid-offer spread decreased for 60% of the shares** with a market capitalisation below EUR 200m (53% for shares in the EUR 200m - EUR 1bn bucket).
- **The decrease in tick size did effectively waive a constraint on the bid-offer spread for the targeted small capitalisations:** the spread decreased for 74% of the shares with a capitalisation below EUR 200m that benefited from a tick reduction (86% in the EUR 200m – EUR 1bn bucket).
- Conversely, **the increase in tick size appear not to have created a significant new constraint on the bid-offer spread for the targeted small capitalisation shares:** the spread increased for less than half (47%) of the shares with a capitalisation below EUR 200m targeted by a tick increase (61% in the EUR 200m – EUR 1bn bucket).

IV. The evolution of first limit size

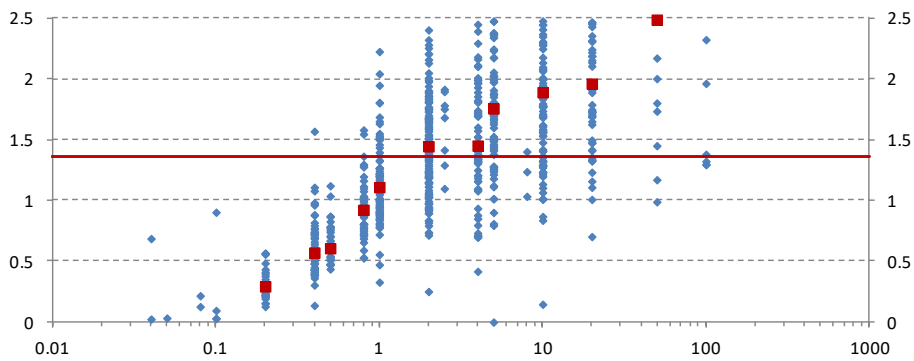
The first limit size used in this study is the average cumulated value of orders at the best bid / best offer. It provides a view at the available liquidity that an investor's order could absorb at once without mechanically moving the current bid-offer spread.

Based on the same conventions as above, and for each market capitalisation bucket, the charts below provide the distribution of the evolution of first limit sizes as a function of the evolution of the tick size.

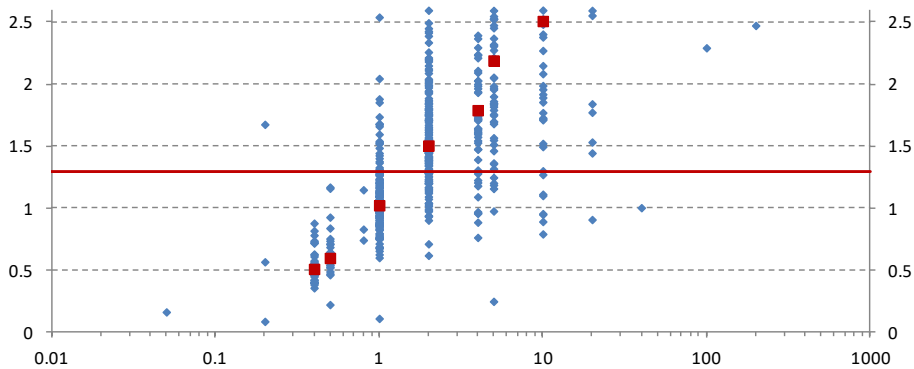
Average 1st Limit Jan-Feb 2018 / average 1st Limit Nov-Dec 2017
 Market capitalisation below EUR 200m



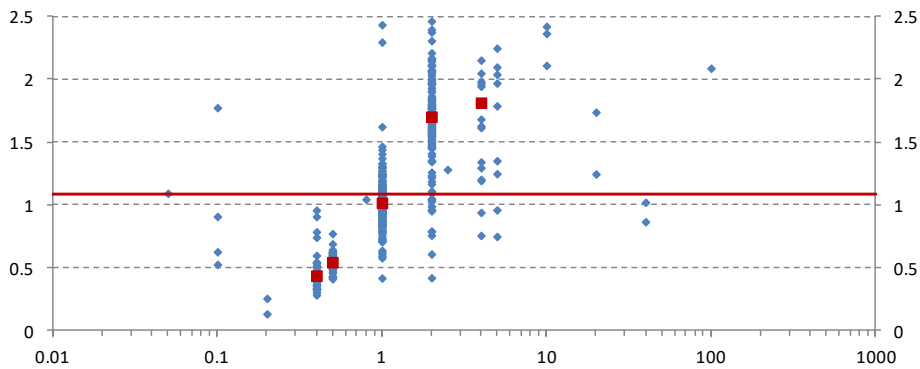
Market capitalisation between EUR 200m and EUR 1bn



Market capitalisation between EUR EUR 1bn and EUR 5bn



Market capitalisation above EUR 5bn



Tick Jan-Feb 2018 / Tick Nov-Dec 2018 (logarithmic scale)

Several features can be noticed on these charts:

- When the tick size was left unchanged by MiFID II / MiFIR, the median first limit size ratio stands close to 1 for capitalisations above EUR 1bn, but is above for capitalisations below EUR 1bn. Indeed, two thirds of the shares in the lower capitalisation buckets for which the tick size was left unchanged saw their first limit size increasing. This tends to indicate that, everything being equal, shares with a market capitalisation below EUR 1bn benefited from a slightly increased interest at the beginning of 2018 compared with end of 2017.
- For all market capitalisations, unsurprisingly, the median evolution of the first limit size shows a strong correlation to the evolution of the tick size. When the tick sizes increase, there are fewer points on which passive orders can be positioned, hence liquidity “clusters” in less numerous, but bigger “points”.
- For a given change in tick size, the magnitude of the evolution of the first limit size is lower for small capitalisations, and increases with the capitalisation. For instance, for a doubling of the tick size, the median first limit size is multiplied by 1.30 for capitalisations below EUR 200m, by 1.45 for capitalisations between EUR 200m and EUR 1bn, by 1.50 for capitalisations between EUR 1bn and EUR 5bn, and by 1.70 for capitalisations above EUR 5bn.

As a conclusion, the implementation of the new tick size regime had a “classic” effect on the amount of liquidity available at the best bid / offer, the evolution of the latter being strongly correlated to the evolution of tick sizes.

It can also be noted that small capitalisation shares have experimented an increase in available liquidity at the beginning of 2018, on the back of factors unrelated to the change in tick sizes.

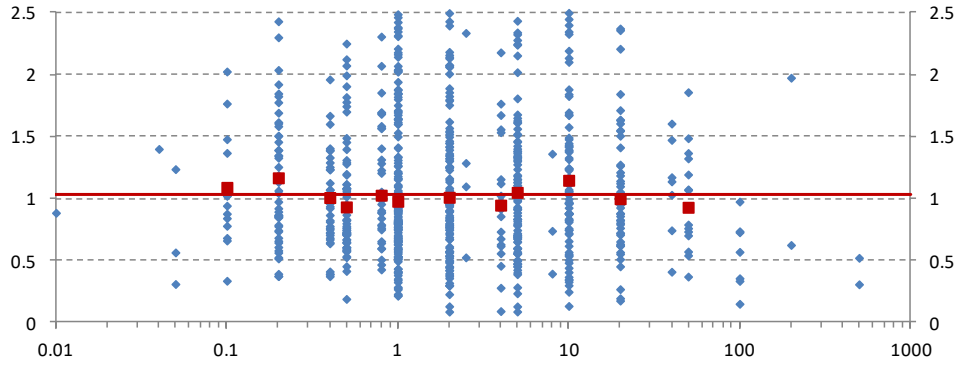
Since most shares had their tick size increased, the combination of both factors led to a general increase in the available liquidity for small caps, with two thirds of shares with a market capitalisation below EUR 200m experimenting an increase in the liquidity available at the best bid / offer.

V. The evolution of traded volumes

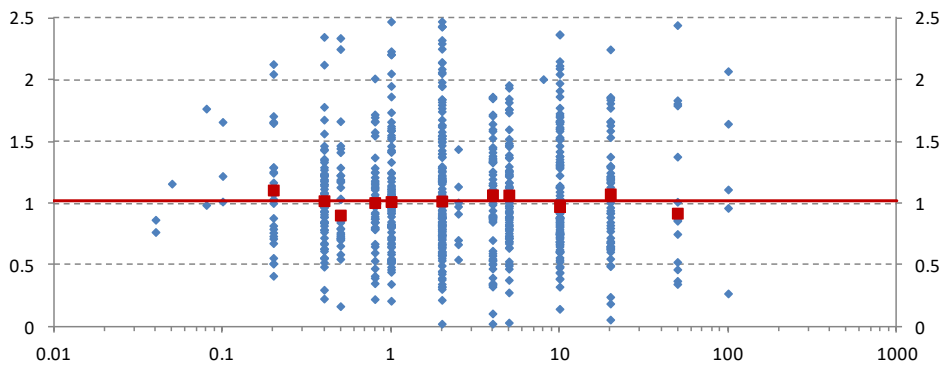
Last, the study focused on the average volume traded on lit order books (eg order books providing pre-trade transparency).

Based on the same conventions as above, and for each market capitalisation bucket, the charts below provide the distribution of the evolution of traded volumes as a function of the evolution of the tick size.

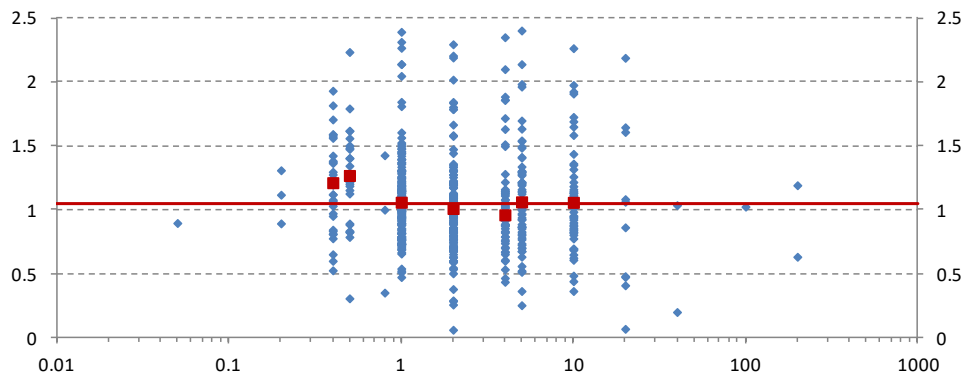
Average daily volume Jan-Feb 2018 / average daily volume Nov-Dec 2017
 Market capitalisation below EUR 200m



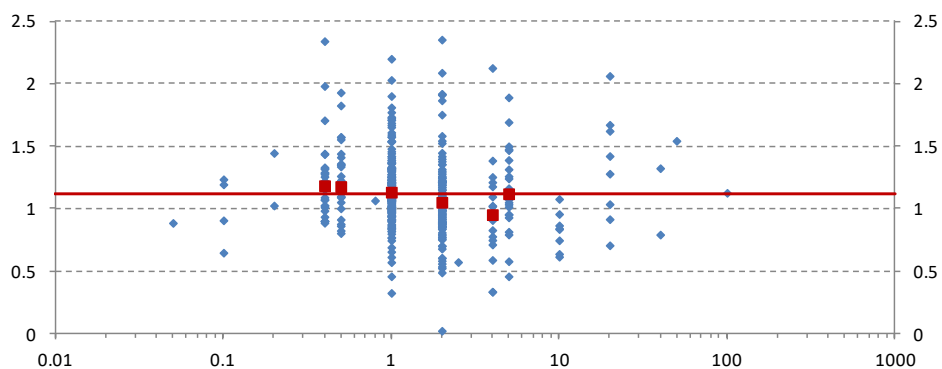
Market capitalisation between EUR 200m and EUR 1bn



Market capitalisation between EUR EUR 1bn and EUR 5bn



Market cap above EUR 5bn



Tick Jan-Feb 2018 / Tick Nov-Dec 2018 (logarithmic scale)

Several features can be noticed on these charts:

- For market capitalisations below EUR 1bn, the median average daily traded volume has remained unchanged when the tick size has remained unchanged: exactly as many shares had their trading volume increasing as those having their trading volume decreasing. This tends to indicate that there was no external factor, apart from the change in tick size, driving changes in the average trading volume.
- Conversely, for market capitalisations above EUR 1bn and unchanged tick size, the median average daily traded volume has increased, and 69% of shares with an unchanged tick size have had their average trading volume increased. This tends to indicate that, everything being equal for tick sizes, shares with a market capitalisation above EUR 1bn benefited from an increased trading activity at the beginning of 2018 compared with end 2017.
- For market capitalisations below EUR 1bn, there doesn't seem to be any clear relation between the evolution of the trading activity and the change in tick sizes.
- For capitalisations above EUR 1bn, it seems that decreases in tick sizes induced increases in trading volumes, and increases in tick sizes induced decreases in trading volumes.
- For instance, for market capitalisations above EUR 5bn:
 - ✓ 67% of shares with a tick size decrease saw their trading volume increase above the level linked to external factors (eg the median factor for unchanged tick size),
 - ✓ 65% of shares with a tick size increase saw their trading volume decrease, or increase below the level linked to external factors.
- This could be linked to the impact of tick sizes on the activity of High Frequency Traders: the activity of some of these players is quite sensitive to the level of tick sizes. It can be noted that this explanation would be consistent with the absence of effect for market capitalisations below EUR 1bn, as these shares attract only marginally high frequency traders.

As a conclusion, the implementation of the new tick size regime was overall neutral with regards to the trading volume for shares with a capitalisation below EUR 1bn.

For shares with a capitalisation above EUR 1bn, the new tick size regime was neutral across the board, even though the activity slightly increased for shares with a reduced tick size, and slightly decreased for shares with a increased tick size.



Appendix: the French case

Executive summary

The implementation of MiFID II / MiFIR tick regime led to significant changes for European shares, with only 18% of unchanged tick sizes on the 3rd of January, and a trend clearly orientated towards the increase of tick sizes (66% of shares, eg 80% of the shares with a tick size change).

Within that global context, it can be noted that (i) only a marginal proportion (4%) of shares with a market capitalisation above EUR 200m have experienced a decrease in tick size, and (ii) amongst market capitalisations below EUR 5bn, a significantly higher proportion of shares has been subject to changes (84%) and especially to extreme changes in tick sizes (36%) than amongst shares with a market capitalisation above EUR 5bn (70% and 11% respectively).

From a bid-offer spread perspective, the new tick size regime seems to have had a mixed impact on the bid-offer spread for French companies' shares:

- the decrease in tick size did effectively waive a constraint on the bid-offer spread for the targeted small capitalisations. The spread decreased for 90% of the shares with a capitalisation below EUR 200m that benefited from a tick reduction,
- symmetrically, the increase in tick size appears to have created a new constraint on the bid-offer spread for the targeted shares. The impact is less pronounced for stock with a market capitalisation below EUR 200m (66% of shares with a tick increase saw their bid-offer spread increase), but it increases with the market capitalisation (72% for capitalisations between EUR 200m and EUR 1bn, 92% for capitalisations above 1bn).

With regards to available liquidity, the implementation of the new tick size regime had a "classic" effect on the amount of liquidity available at the best bid / offer, the evolution of the latter being strongly correlated to the evolution of tick sizes. It can also be noted that French small capitalisation shares have experienced an increase in available liquidity at the beginning of 2018, on the back of factors unrelated to the change in tick sizes. Since most shares had their tick size increased, the combination of both factors led to a general increase in the available liquidity for small caps, with 75% of shares with a market capitalisation below EUR 1bn experimenting an increase in the liquidity available at the best bid / offer.

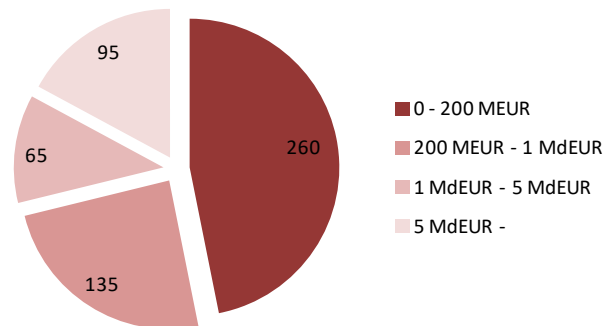
Finally, it appears that the implementation of the new tick size regime was overall neutral with regard to the trading volume for French shares.

I. Data and sample

The “French” subset of the initial sample consists of a universe of 555 listed company shares (excluding ETFs, ETCs, funds, etc.) with a primary listing in France.

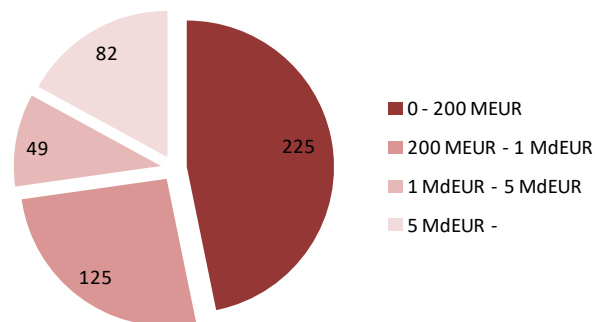
In terms of market capitalisation range, the initial “French” sample had the following composition:

Split of the initial sample of 555 French shares by market capitalisation range



Considering only those shares for which the tick size remained stable over November and December 2017, and then remained stable from the 3rd of January 2018 (eg MiFID II / MiFIR implementation date) till the beginning of February 2018 led to a reduced sample of 481 French shares, with a split by capitalisation bucket quite similar to the initial one:

Split of the final sample of 481 French shares by market capitalisation range



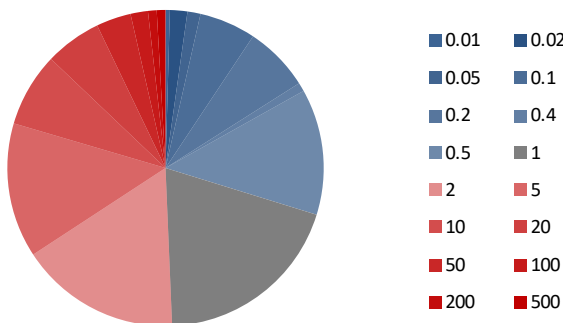
It can be noted that the “French sample” has a significantly higher proportion of shares with a market cap below EUR 200m than the EU sample.

II. The evolution of tick sizes

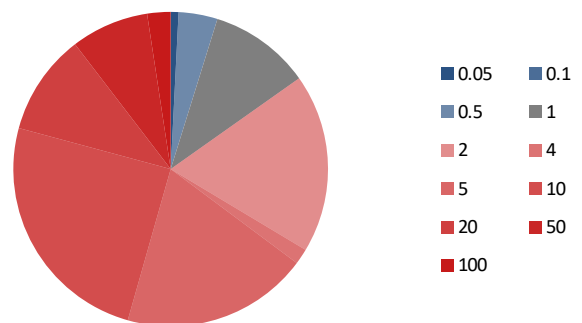
For the shares in the 481 shares sample, and for each capitalisation bucket, the charts below provide the proportion of shares for a given change of tick size due to the implementation of MiFID II / MiFIR regime.

The color code is the same as for the EU sample.

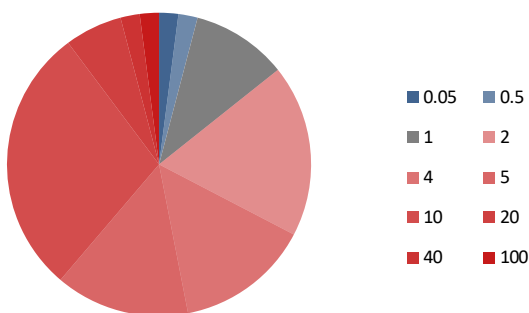
Ratio Tick Jan-Feb 2018 to Tick Nov-Dec 2017
for French stocks with a market capitalisation below EUR 200m



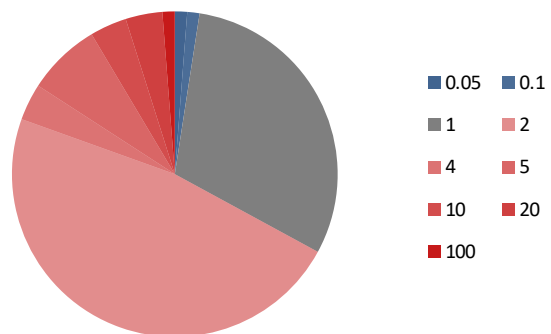
Ratio Tick Jan-Feb 2018 to Tick Nov-Dec 2017
for French stocks with a market capitalisation between EUR 200m and EUR 1bn



Ratio Tick Jan-Feb 2018 to Tick Nov-Dec 2017
for French stocks with a market capitalisation between EUR 1bn and EUR 5bn



Ratio Tick Jan-Feb 2018 to Tick Nov-Dec 2017
for French stocks with a market capitalisation above EUR 5bn



It appears that, **except for market capitalisations below EUR 200m, the proportion of French stocks that have experienced a decrease in tick size is negligible (4%)**, which is a striking difference with the average EU sample.

Apart from this, the main conclusions are similar to the ones for the EU sample:

- The proportion of shares for which the tick size remained unchanged is significantly lower for market capitalisations below EUR 5bn (16%) than for shares with a higher market capitalisation (30%).
- The proportion of shares with an extreme change in the tick size (eg multiplied or divided by a 10 factor or more) is significantly higher for market capitalisations below EUR 5bn (36%) than for shares with a higher market capitalisation (11%).

As a summary, most French stocks (66%) have experimented an increase in tick size, with a marginal proportion (4%) of decrease for capitalisations above EUR 200m. Amongst market capitalisations below EUR 5bn, a significantly higher proportion of shares has been subject to (i) changes in their tick size and (ii) extreme changes in tick sizes than amongst shares with a market capitalisation above EUR 5bn.

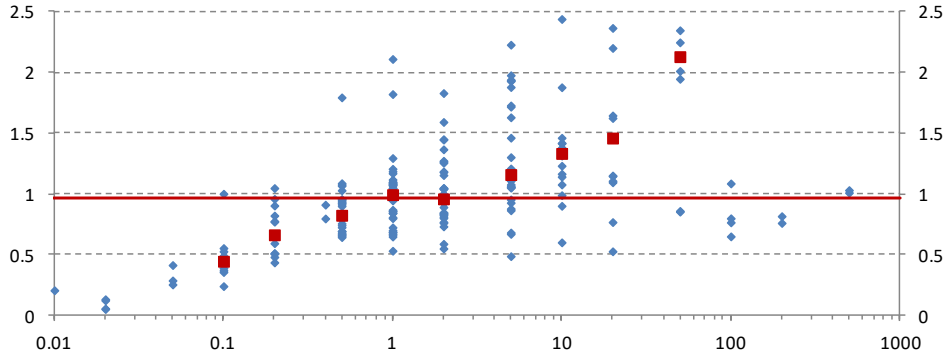
III. The evolution of bid-offer spreads

The charts have the same codes as for the EU sample:

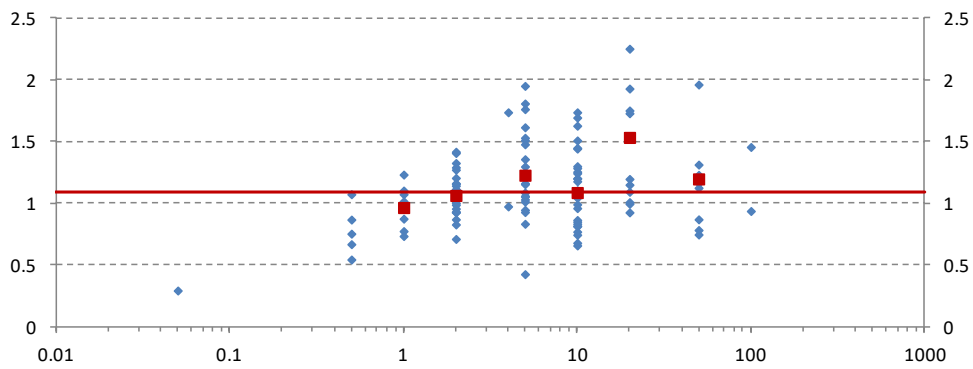
- the X axis represents the ratio between the tick size in January-February 2018 and the tick size in November-December 2017 (the “tick size ratio”),
- the Y axis represents to the ratio between the average bid-offer spread in January-February 2018 and the average bid-offer spread in November-December 2017 (the “bid-offer spread ratio”),
- each blue dot provides the position of a given share,
- each red dot provides the median value for the given level of tick size ratio. Given the lower size of the sample, median values have been computed when at least 8 stocks share the same 2018 / 2017 tick ratio,
- the red line provides the median value for the whole sample.

The below charts provide the distribution of the evolution of bid-offer spreads depending on the evolution of the tick size, and on the market capitalisation of the share.

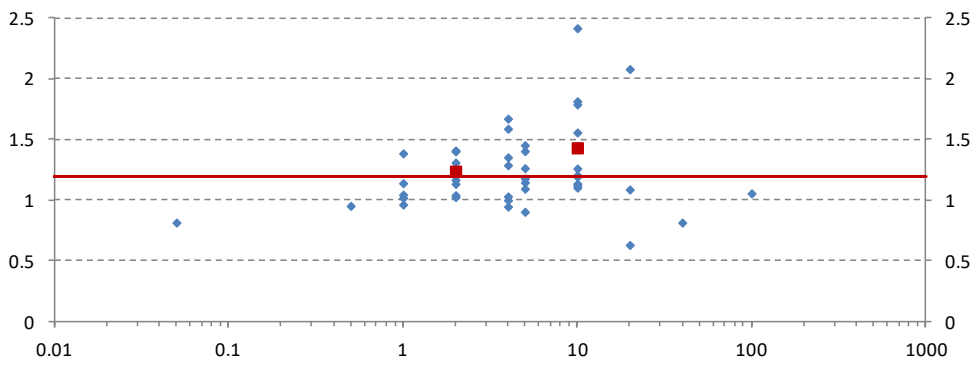
Average bid-offer - spread Jan-Feb 2018 / average bid-offer spread Nov-Dec 2017
 French stocks, market capitalisation below EUR 200m



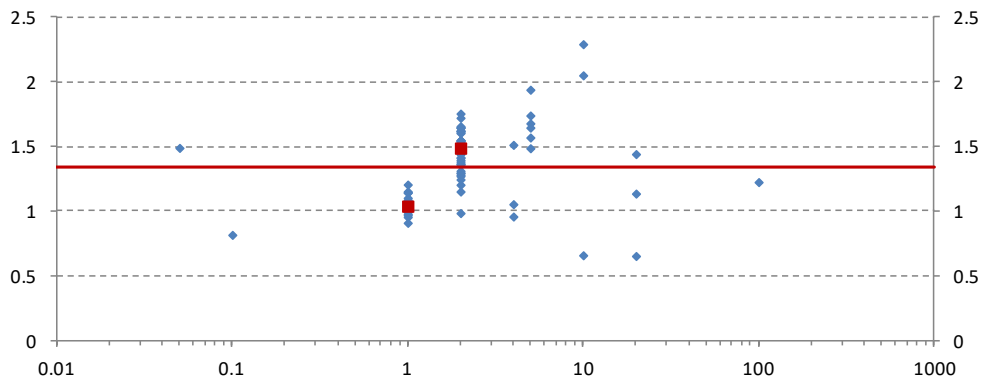
French stocks, market capitalisation between EUR 200m and EUR 1bn



French stocks, market capitalisation between EUR 1bn and EUR 5bn



French stocks, market capitalisation above EUR 5bn



Tick Jan-Feb 2018 / Tick Nov-Dec 2018 (logarithmic scale)

Despite the relatively limited depth of the sample, several features can be noticed on these charts:

- For all capitalisation buckets, when the tick size was left unchanged by MiFID II / MiFIR, the median bid-offer spread ratio stands at 1. In other terms, half of the shares have their bid-offer spread increasing and half have their bid-offer spread decreasing. This confirms that there was no external factor, apart from the change in tick size, driving changes in the bid-offer spread.
- For market capitalisations below EUR 200m, the bid-offer spread ratio stands below 1 for the majority of shares that had their tick size reduced. This tends to indicate that for these shares, the tick size was effectively constraining the bid-offer spread, so its reduction under the MiFID II / MiFIR regime permitted the reduction of the spread.
- Except for market capitalisations below EUR 200m, the median bid-offer spread ratio stands above 1 for all market capitalisation buckets. This is linked to the fact that the vast majority of stocks above EUR 200m have experienced a tick size increase.

It can also be observed that the increase in the bid-offer spread gets more pronounced for higher market capitalisations (1.09 for capitalisations between EUR 200m and EUR 1bn, 1.19 between EUR 1bn and EUR 5bn, 1.33 above EUR 5bn). This means that for stocks with a higher market capitalisation, the increase in the tick size has created a new constraint on the bid-offer spread.

As a conclusion, the new tick size regime seems to have had a mixed impact on the bid-offer spread for French companies' shares:

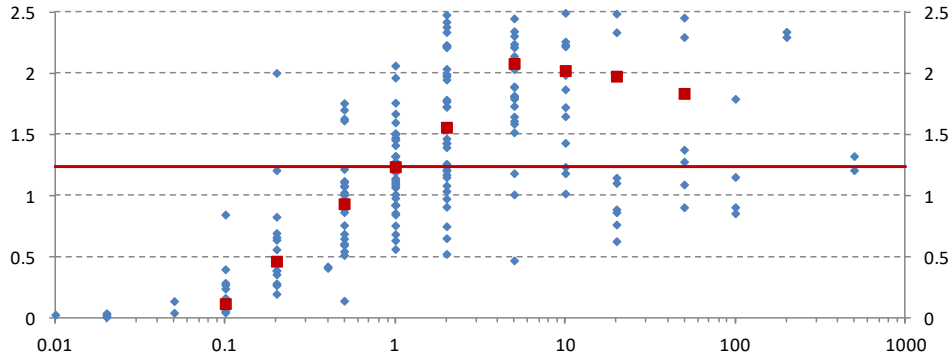
- **The decrease in tick size did effectively waive a constraint on the bid-offer spread for the targeted small capitalisations:** the spread decreased for 90% of the shares with a capitalisation below EUR 200m that benefited from a tick reduction.
- **The increase in tick size appears to have created a new constraint on the bid-offer spread for the targeted shares. The impact is less pronounced for stock with a market capitalisation below EUR 200m** (66% of shares with a tick increase see their bid-offer spread increase), and increases with the market capitalisation (72% for capitalisations between EUR 200m and EUR 1bn, 92% for capitalisations above 1bn).

IV. The evolution of first limit size

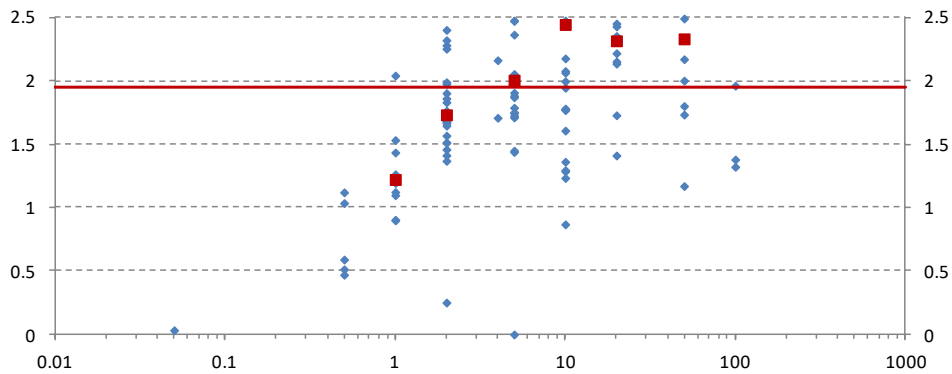
The first limit size used in this study is the average cumulated value of orders at the best bid / best offer. It provides a view at the available liquidity that an investor's order could absorb at once without mechanically moving the current bid-offer spread.

Based the same conventions as above, and for each market capitalisation bucket, the charts below provide the distribution of the evolution of first limit sizes as a function of the evolution of the tick size.

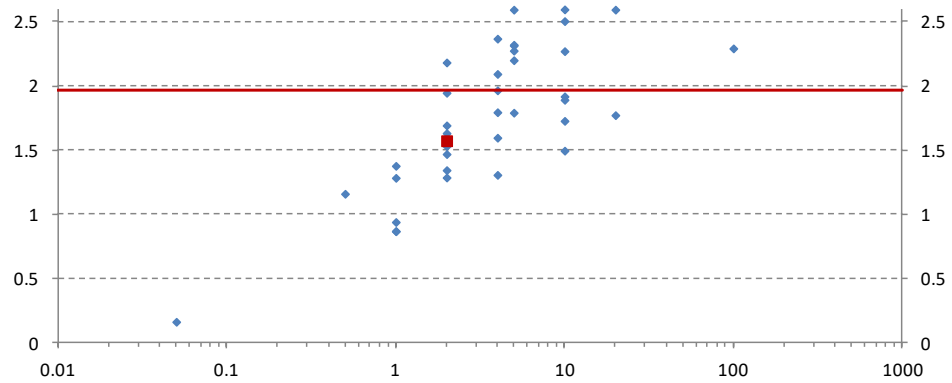
Average 1st Limit Jan-Feb 2018 / average 1st Limit Nov-Dec 2017
French stocks, market capitalisation below EUR 200m



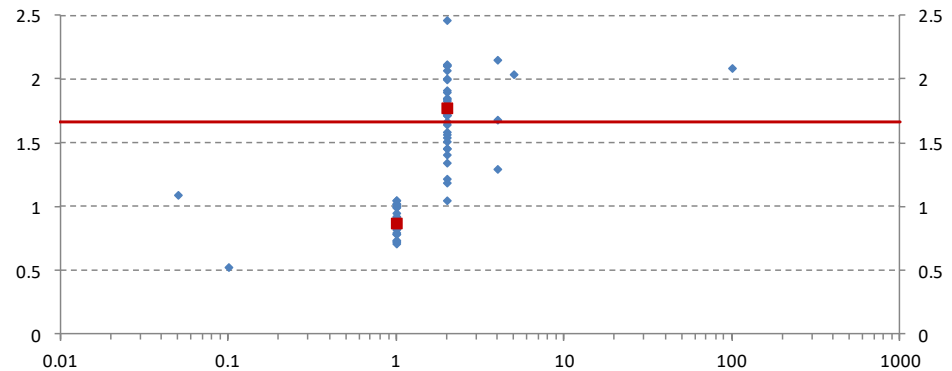
French stocks, market capitalisation between EUR200m and EUR 1bn



French stocks, market capitalisation between EUR 1bn and EUR 5bn



French stocks, market capitalisation above EUR 5bn



Tick Jan-Feb 2018 / Tick Nov-Dec 2018 (logarithmic scale)

Several features can be noticed on these charts:

- A striking element is that, for French shares with a market capitalisation below EUR 1bn, when the tick size was left unchanged by MiFID II / MiFIR, the median first limit size ratio stands above 1.2, which tends to indicate that, beyond tick size effects, there was an increased interest for these shares at the beginning of 2018 compared with end of 2017.
- For all market capitalisations, unsurprisingly, the median evolution of the first limit size shows a strong correlation to the evolution of the tick size. When the tick sizes increase, there are fewer points on which passive orders can be positioned, hence liquidity “clusters” in less numerous, but bigger “points”.
- For a given change in tick size, the magnitude of the evolution of the first limit size appears to be more pronounced when the market capitalisation increases.

As a conclusion, the implementation of the new tick size regime had a “classic” effect on the amount of liquidity available at the best bid / offer, the evolution of the latter being strongly correlated to the evolution of tick sizes.

It can also be noted that French small capitalisation shares have experienced an increase in available liquidity at the beginning of 2018, on the back of factors unrelated to the change in tick sizes.

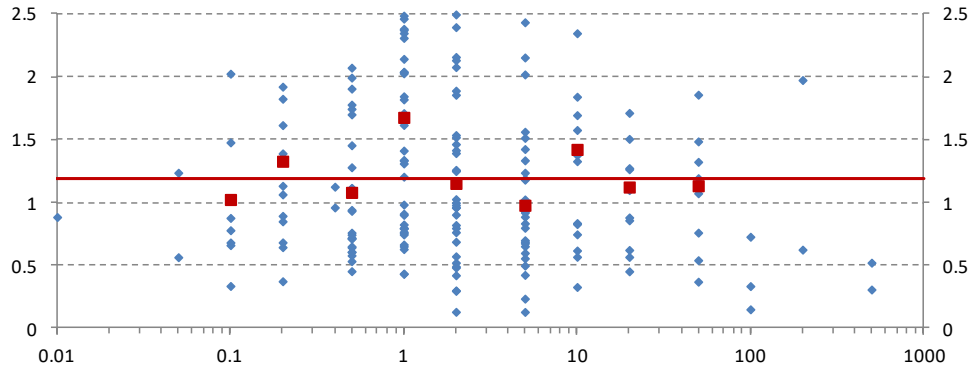
Since most shares had their tick size increased, the combination of both factors led to a general increase in the available liquidity for small caps, with 75% of shares with a market capitalisation below EUR 1bn experimenting an increase in the liquidity available at the best bid / offer.

V. The evolution of traded volumes

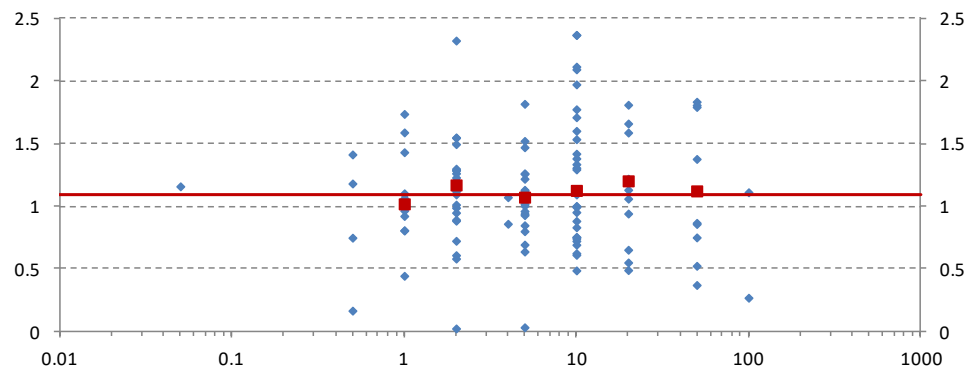
Last, the study focused on the average volume traded on lit order books (eg order books providing pre-trade transparency).

Based the same conventions as above, and for each market capitalisation bucket, the charts below provide the distribution of the evolution of traded volumes as a function of the evolution of the tick size.

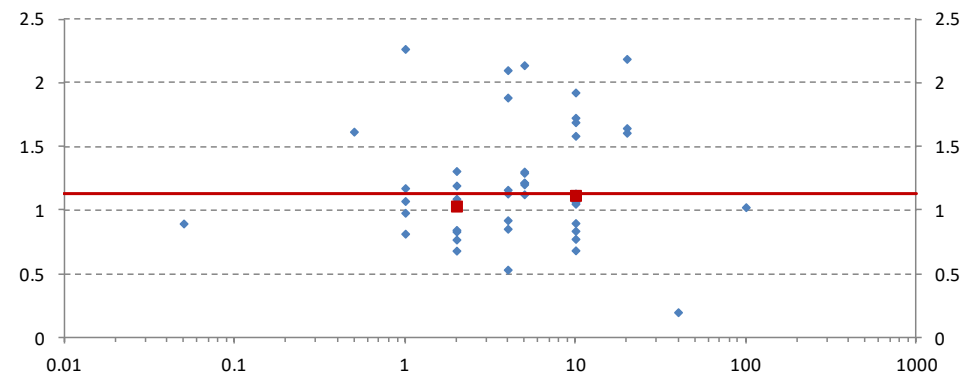
Average daily volume Jan-Feb 2018 / average daily volume Nov-Dec 2017
 French stocks, market capitalisation below EUR 200m



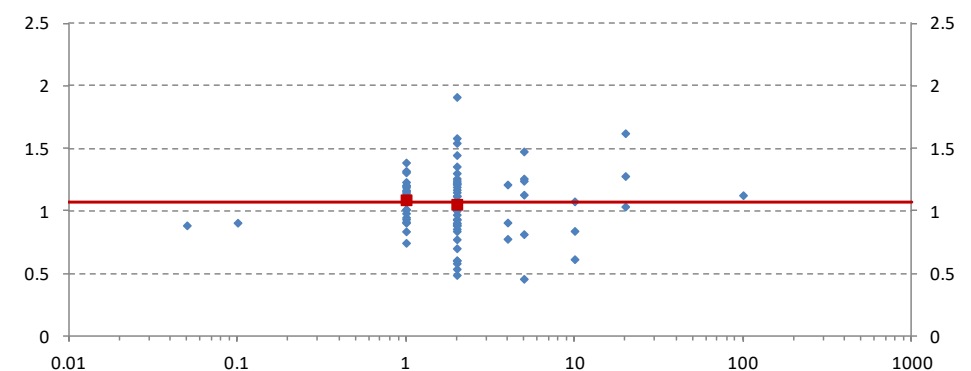
French stocks, market capitalisation between EUR 200m and EUR 1bn



French stocks, market capitalisation between EUR 1bn and EUR 5bn



French stocks, market cap above EUR 5bn



Tick Jan-Feb 2018 / Tick Nov-Dec 2018 (logarithmic scale)

Several features can be noticed on these charts:

- Generally speaking, volumes on French shares have increased between end 2017 and the beginning of 2018, with 61% of French shares experiencing an increasing in traded volumes.
- For shares with a market capitalisation below EUR 200m, there is a strong dispersion in the evolution of volumes, which tends to indicate that external factors have influenced on the volumes.
- There doesn't seem to be any clear relation between the evolution of the trading activity and the change in tick sizes.

As a conclusion, the implementation of the new tick size regime appears to have been overall neutral with regards to the trading volume for French shares.

