Risk publications

Institutional ETF trading

Liquidity improving, trade sizes growing

Risk.net Q4 2018

2nd annual global institutional ETF trading survey report

COMMISSIONED BY

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Jane Street

Introduction

This report presents the findings from *Risk.net*'s second annual global exchange-traded fund (ETF) trading survey, commissioned by Jane Street. It includes responses from 296 institutional investors, as well as qualitative interviews from 14 buy-side firms.

Key findings

Institutions are getting more comfortable with ETF liquidity and more sophisticated about measuring it. They are trading ETFs more often and in larger sizes – and not just for passive management but for active management, hedging and liquidity management. Traders are focusing on competitive pricing and execution capabilities when choosing counterparties:

1. **Institutional traders think ETFs are more liquid or just as liquid as they were three years ago,** across all asset classes, including emerging market ETFs, fixed-income ETFs and developed market ETFs.

2. **Competitive pricing is the most important criterion for selecting counterparties,** with 55% of institutions putting it in first place. Institutions value competitive pricing twice as much as any other criteria, including expertise in complex/illiquid markets (20%), ability to trade in large size (16%) and value-add services (9%).

3. **The size of the average ETF trade continues growing.** 24% of global institutions reported executing a trade over $100 million compared with 21% in the year prior; in the more mature US/Americas market, 4% of respondents had executed a trade in excess of $1 billion.

4. **Independent market-makers are gaining traction.** Market-makers are the top choice of counterparty among buy-side institutions, experiencing an increase of 6 percentage points since 2017. The increased popularity of risk pricing may help to explain this change.

5. **Use of request-for-quote (RFQ) platforms is on the rise.** More institutions are starting to use RFQ platforms, with adoption led by European traders.

Acknowledgements

We would like to thank the following interviewees for their valuable contribution to this report:

Adventist Health System
Scott Boone
Director of Investments

DWS
Kevin Lui
Vice-President Asia-Pacific Trading

Employees Retirement System of Texas
Leighton Shantz
Director of Fixed Income

Fondazione Enasarco
Riccardo Rasi
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Glovista
Darshan Bhatt
Co-founder and Deputy Chief Investment Officer

Harris Fraser Group
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Chief Investment Strategist

Invesco
Paul Squires
Head of EMEA Equities Trading

Nutmeg
James McManus
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Samsung Asset Management
Michael (Bumkeun) Cho
Portfolio Manager

Seven Investment Management
Peter Sleep
Investment Manager

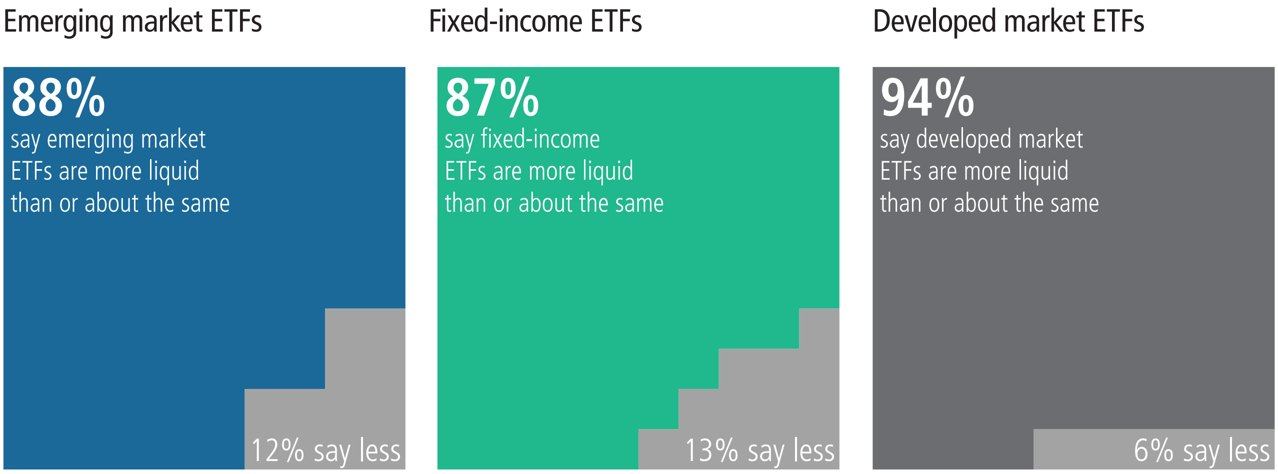
TD Ameritrade
Michael Gallagher
Director of Institutional Trading

Thai Life Insurance
Parinya Masertsri
Portfolio Manager

Union Investment
Christoph Hock
Head of Multi-Asset Trading

Institutions find increasing ETF liquidity across asset classes

1. Institutional perception of liquidity – Today versus three years ago



Survey respondents say ETF liquidity has improved over the past three years.

88% of firms reported that emerging market equity ETFs have about the same level of liquidity or are more liquid, while 87% suggest the same about fixed-income products. This is comparable with the figures for developed market equity ETFs, at 94%, which have an in-built liquidity advantage as their underlyings are heavily traded worldwide.

"If I look at enquiries versus the number of trades we've executed, we are running at an execution rate of around 90%. For me, that's the barometer of liquidity. Looking back from a year ago – albeit from a very low base in terms of notional traded – not only are we far more active, but feedback from the traders is very much that liquidity has improved," says Paul Squires, UK-based Head of EMEA Equities Trading at Invesco.

Others say this improving liquidity trend is reflected in tight pricing on such products: "We can trade in size, in illiquid fixed income, in illiquid emerging market debt without any problem, within the bid-offer spread on the screen [when trading over the counter]," says Peter Sleep, Investment Manager at Seven Investment Management in the UK.

ETFs versus underlying assets

Part of the appeal of ETFs is that they offer investors exposure to a series of assets in a single security. Another is the ease with which they can be traded. Buying or selling ETFs referencing bonds, commodities, or emerging markets assets can be as easy as trading a stock.

When asked what type of ETFs were more efficient to trade than the underlying asset, 106 US/Americas-based institutions ranked fixed-income ETFs first on the list. Emerging markets followed closely in second place, then developed markets, which were ranked third.

"If you were to build out a fixed-income exposure bond by bond, it would be much more expensive than buying an ETF that delivers the same desired exposure. It's the same if you were to wrap up those bonds and redeem for an ETF – that's much easier and less costly than selling those bonds in the fixed-income market"

Michael Gallagher, TD Ameritrade

"If I look at enquiries versus the number of trades we've executed, we are running at an execution rate of around 90%. For me, that's the barometer of liquidity. Looking back from a year ago, albeit from a very low base in terms of notional traded, not only are we far more active, but feedback from the traders is very much that liquidity has improved"

Paul Squires, Invesco

ETF OPTIONS

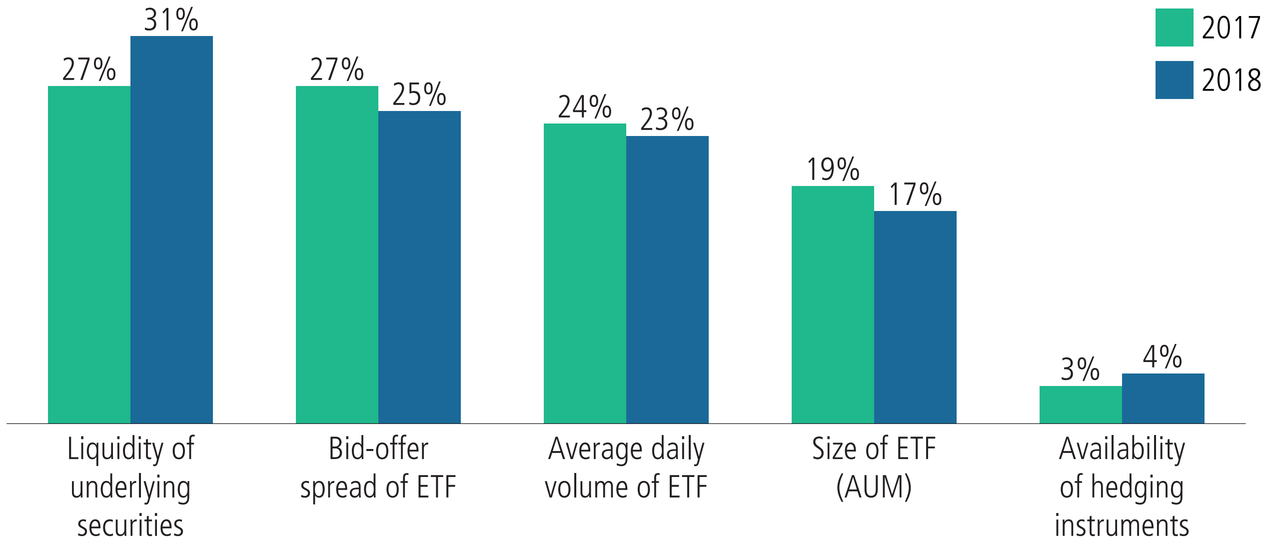
Buy-side firms are yet to embrace ETF options en masse, with survey respondents that trade derivatives typically favouring traditional single-stock options.

But existing users say that ETF options are gaining traction. "We are seeing the options market getting more liquid. I would argue that the ETF options market should be as – if not more – liquid than for single stocks because, if the underlying ETFs are liquid, hedging is that much easier," says Darshan Bhatt, Co-founder and Deputy Chief Investment Officer at Glovista.

Across ETF and equity options, the ease of trading and transparency of centrally cleared, exchange-listed contracts appears to be an attractive feature. Of the group surveyed, 65% prefer using listed options as opposed to over-the-counter derivatives.

Institutions are increasingly looking beyond ETFs to underlying securities to gauge liquidity

2. Criteria primarily used to evaluate the liquidity of an ETF



The efficient trading of ETFs starts with an understanding of a fund's liquidity. This informs pricing, tracking error and a firm's overall assessment of the risk of taking on a specific position.

Institutions have an array of metrics to gauge an ETF's liquidity. Top-level indicators include the fund's bid-offer spread, average daily volume and assets under management (AUM).

However, these only give firms a superficial view of a fund's liquidity. To gain a better understanding, it is prudent to consider the liquidity of the underlying securities, also known as 'implied liquidity'.

Buy-side firms are increasingly drilling down into this implied liquidity, the survey reveals.

Globally, 31% of respondents said they look at the underlying securities to evaluate the liquidity of an ETF, up from 27% in 2017 – the biggest gain on last year's results. US/Americas- and Europe-based firms propelled this growth, with 37% and 33% of respondents, respectively, saying they focus on implied liquidity, an increase from 33% and 26% in 2017.

"We go beyond 'first-stage' implied liquidity of an ETF to the dispersion of that liquidity across the underlying shares. We analyse the least liquid shares within an ETF that are driving that implied liquidity number. This analysis helps us determine how and when to trade a particular ETF"

Darshan Bhatt, Glovista

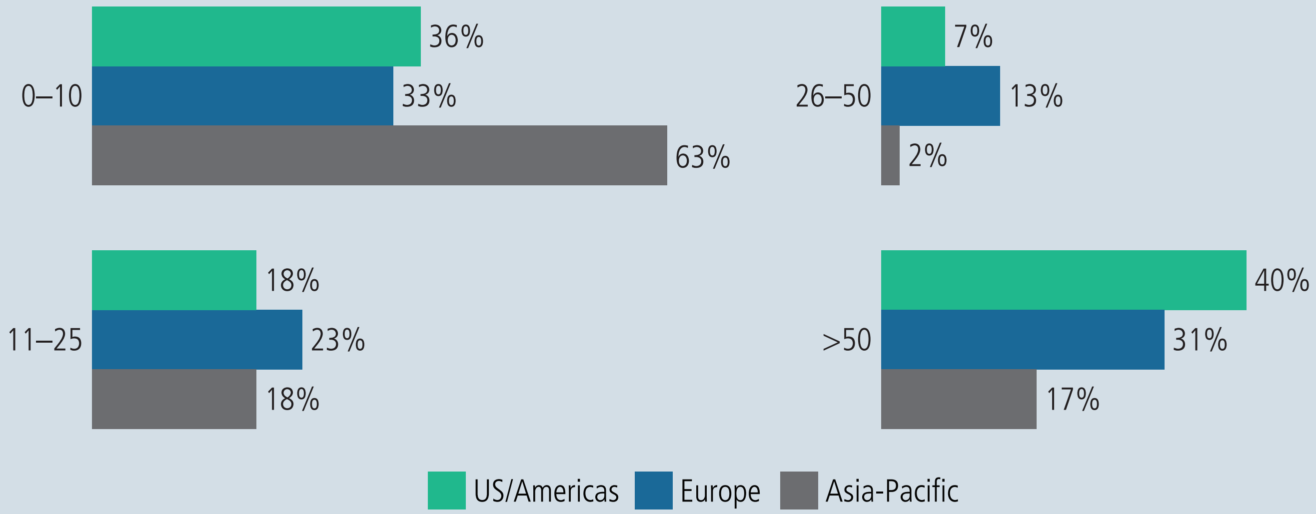
Frequency and size of trades

This year's survey respondents report varying levels of engagement with ETFs. Globally, 38% execute more than 25 ETF trades per month, with the same percentage reporting their largest trade as over $50 million in size. There are vast regional differences, however, with 47% of US/Americas-based but just 19% of Asia-Pacific institutions revealing they trade more than 25 times per month.

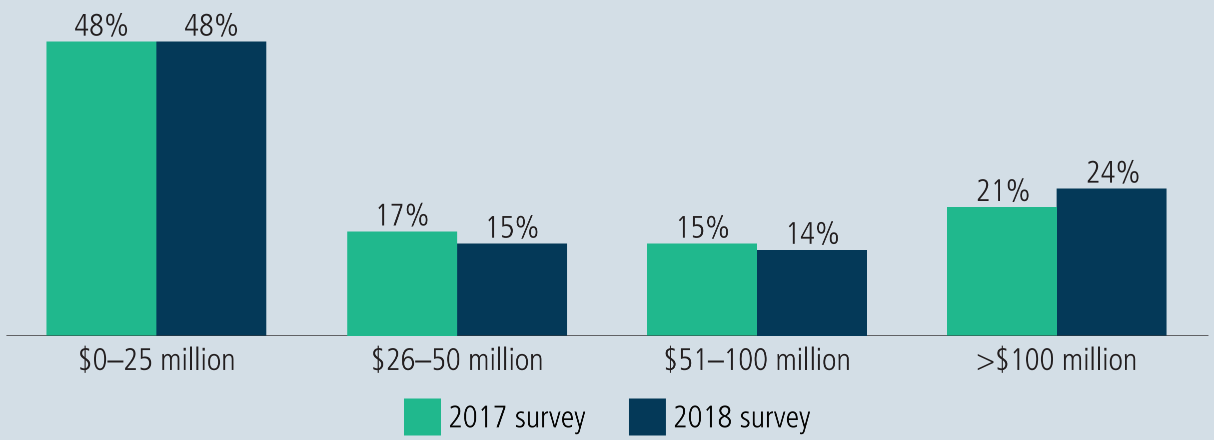
US/Americas-based firms also report the largest ETF trade tickets, with 43% reporting trades of greater than $50 million in the last year and 4% executing trades in excess of $1 billion. This may be a consequence of the maturity of the US/Americas ETF market and these investors' longer history of trading these products.

There was an increase in the percentage of European firms executing trades of over $50 million: from 30% to 42%. The corresponding figures for Asia-Pacific firms remained at 24%.

3. Number of ETF trades per month across all accounts

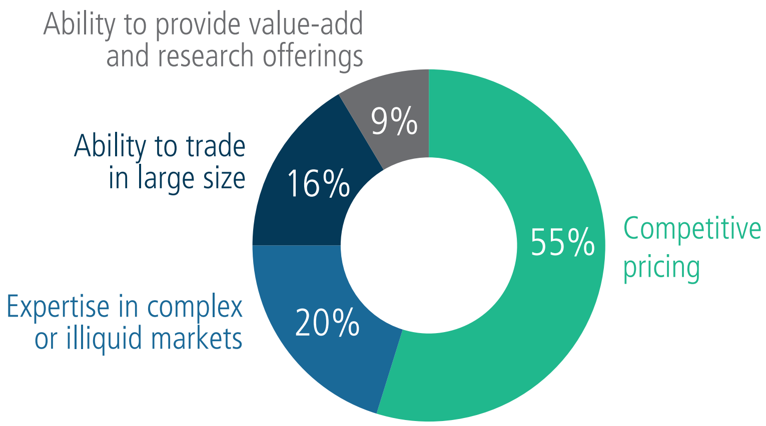


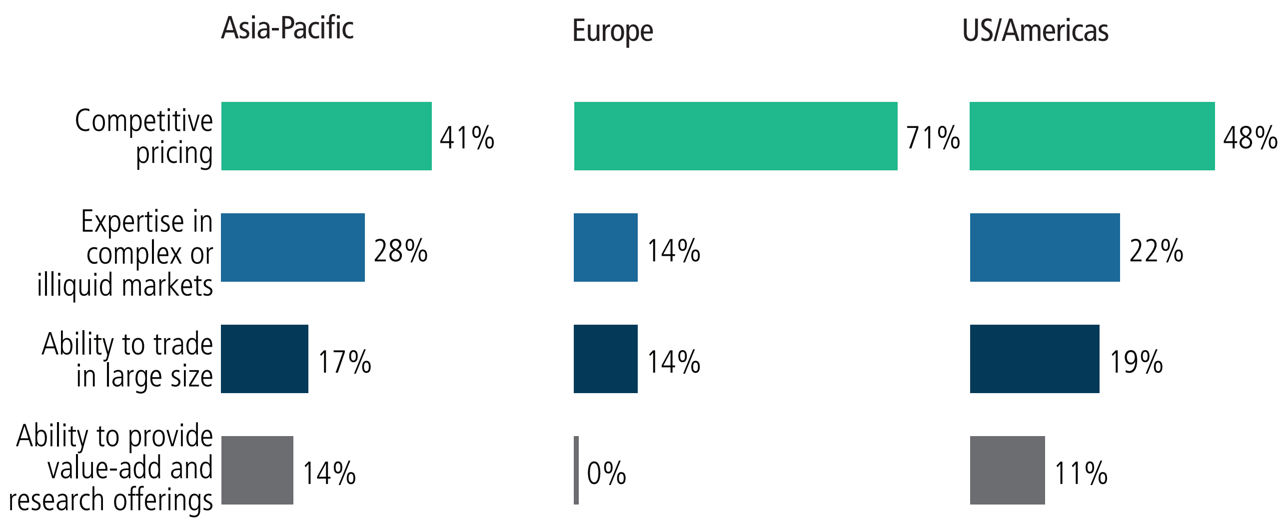
4. Size of largest ETF trade in the past year



What institutions want from a counterparty

5. Which criterion most influences your decision to select an ETF liquidity provider?





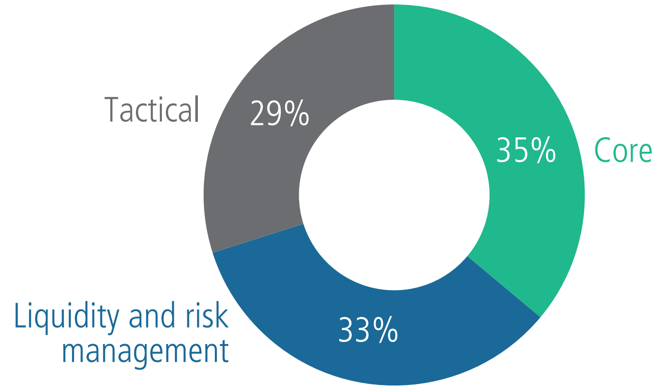
Counterparty selection

Institutions weigh a number of factors when selecting ETF trading counterparties. These considerations shift according to the type and size of the planned trade and also vary by geography. Overall, one criterion dominates: more than half of survey respondents cite price competitiveness as the quality that most influences their decision to choose an ETF liquidity provider.

Investors worldwide value cost efficiency, and in an environment of low and falling asset management fees – the product of heightened competition – trade pricing has an increased prominence in institutions' total cost of ownership calculations.

Counterparty selection

6. Institutions are using ETFs for the core, liquidity and risk management, and tactical purposes



This emphasis on pricing also coincides with a year-on-year increase in the percentage of institutions reporting the use of ETFs as part of their core asset allocations: from 25% to 35%. As ETFs have become more central to buy-side firms' investment strategies, and trade sizes have grown accordingly, it follows that pricing would come into sharper focus.

European institutions prioritised competitive pricing to the greatest degree, with 71% of respondents selecting this factor, and only one respondent citing value-added services such as research. This could be a result of the revised Markets in Financial Instruments Directive (MiFID II). In the US/Americas, 90%, and in Asia-Pacific, 85% selected counterparties for low execution cost and ability to handle large sizes and complex underlyings; only 10% and 15%, respectively, look first for bundled services.

Significant numbers of institutional traders rely on trading counterparties when executing large sizes (16%), or when trading ETFs holding complex or less liquid underlyings (20%). These percentages are consistent across regions, and likely reflect the special demands on the largest and most sophisticated users. While some institutions look first at cost and others

SETTLEMENT SECURITY

An additional criterion highlighted by interviewees was settlement security – the ability of a counterparty to deliver securities in a timely manner post-trade. Settlement complexity is a function of the availability and liquidity of the ETF and its underlyings, and is best met by counterparties that maintain big inventories or with the know-how to hunt down the relevant securities at speed.

"Settlement certainty – in terms of knowing the securities will be delivered on a timely basis – is crucial. We do not want negative interest rates eating into our cash, so we want delivery of the securities with the shortest possible delay," says Riccardo Rasi, Investment Manager at Fondazione Enasarco, an Italian pension fund.

prioritise the ability to trade in complex assets or in large size, both types of institutions probably value both.

Selection methodologies can be highly sophisticated. Michael Gallagher, of TD Ameritrade, says his firm uses five criteria to rank counterparties: win percentage, win margin, loss margin, the timely acknowledgment of RFQs and the capacity to handle oversized trades. "All of them are equally weighted, and there's a collective score and ranking that goes out each day for each counterparty, compiled by looking back at the last 150 trades separately across eight different asset classes. Our traders then receive brand-new routing instructions each and every day based on that data," he says.

"We put a lot of work into understanding the dynamics of liquidity in a certain security," says James McManus, Investment Manager at Nutmeg in the UK. "We store the data from every single trade we've ever done. Using that data, we can build up a picture of which counterparties are strong in a particular asset class or security, and trade size. It's also here where the capital markets teams at the ETF providers prove helpful, as they know which market-makers are most active in securities, and who may currently have inventory," he adds.

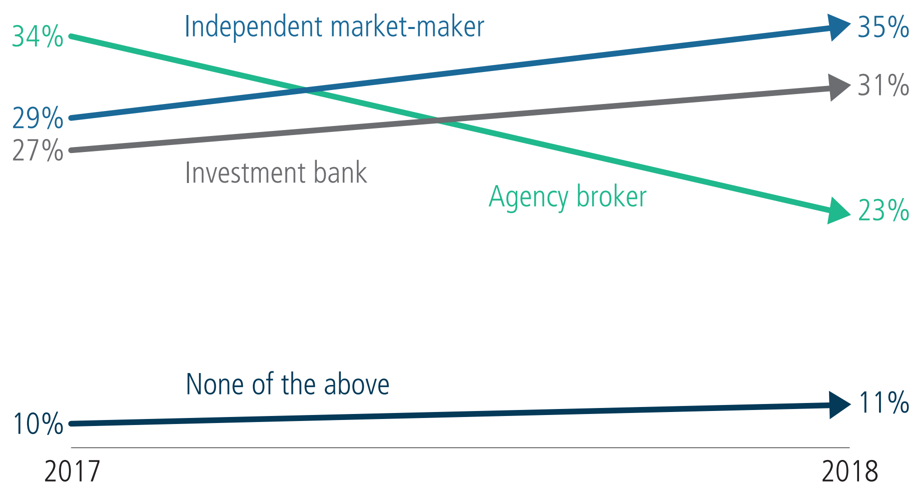
A provider's ability to handle large trades efficiently is also seen as crucial. Institutions' concerns with these types of trades is linked to the drive for competitive pricing, as a market-maker's prowess in illiquid and outsize trades would be reflected in their offered prices.

"Every basis point counts. It's something we take pride in doing: using data to produce what we call 'operational alpha'. We monitor pre-trade and analyse post-trade and, over time, we have built datasets that guide our counterparty selection"

Scott Boone, Adventist Health System

Independent market-makers have jumped into the lead as favoured counterparties

7. Who do institutions prefer to trade with?



Independent ETF market-makers are the top choice of counterparty among buy-side institutions, with 35% of global respondents saying they work with these firms most frequently – up from 29% in 2017.

Their ascent has come at the expense of agency brokers, which in 2017 were the most favoured trading partners. This year, only 23% of institutions say they use brokers most commonly. 31% of respondents work with investment banks the most, up from 27% in 2017.

This migration was most pronounced among US/ Americas- and Europe-based respondents. 50% of European buy-side companies say they most commonly use independent market-makers – up from 36% – and just 17% use agency brokers most often, down from 28% in 2017.

"We would, in the past, have asked bulge-bracket brokers, and now we are much more comfortable asking alternative liquidity providers – and that has been absolutely to our benefit in terms of execution and pricing," says Paul Squires at Invesco.

The migration away from agency brokers in Europe is partly a function of MiFID II regulatory reforms. These have compelled firms to find the most direct and cost-saving route to trade. Agency brokers generally charge commission on each ticket, bumping up the execution price. Traditional value-adds that come with working with agency brokers – namely market research and trade ideas – have also lost their gloss, as MiFID II bans the sell side from sending these memos and folding the cost in with trading commissions.

This 'unbundling' of research fees pushes buy-side firms to focus solely on trade execution costs without

"When it comes to small or illiquid ETFs, I choose counterparties that have done difficult trades with me in the past. It's important for a counterparty to build up a good track record. When we trade, we trade in huge sizes, so trust matters"

Michael (Bumkeun) Cho,
Samsung Asset Management

accounting for the additional services provided by a broker. In the post-MiFID II world, competitive pricing and trading prowess is king.

"Independent market-makers invest a huge amount in their technology and their ability to price securities accurately and efficiently. That has given them a big advantage," says McManus at Nutmeg. He adds that the efforts made by these ETF trading specialists have also spurred investment banks to raise their game, lowering execution costs across the board.

Their capacity to execute trades in complex and/or thinly traded ETFs was also cited by US/Americas-based interviewees as reasons for independent market-makers gaining popularity.

Leighton Shantz at the Employees Retirement System of Texas says that his desk makes a pre-trade estimate of the spread on the basket of bonds underlying a selected ETF, but admits that independent market-makers – with superior technology and understanding of pricing dynamics – are better positioned to provide a true snapshot. That can make price discovery that little bit easier.

"The independent market-makers, and the platforms they use, are getting better all the time, meaning these ETFs are becoming a more commoditised product to buy and sell," he says.

The survey results for Asia-Pacific firms also suggest a shift away from investment banks towards independent market-makers and other liquidity providers. In 2017, 53% of respondents said they used banks most frequently; this year it is 39%, with respondents that prefer independent market-makers increasing from 9% to 15%.

In addition, firms in this region also appear to rely on ETF providers to assist in selecting a suitable counterparty. "The ETF providers know the best market-makers for their products. They know who holds inventory and where to get the best quote," says Andy Wong, Chief Investment Strategist at wealth manager Harris Fraser Group in Hong Kong.

"A lot of what we do is trade US- and Europe-listed ETFs with Asia-Pacific underlyings in Asian [business] hours. Independent market-makers can price this live, whereas most banks we work with can't. We don't have so many options, so when it comes to counterparty selection, it's a matter of who can do the trade for us at all"

Kevin Lui, DWS

"There are some ETFs where there is a finite set of players that understand them adequately and traffic in them. These make for less commoditised-style trades and require different pricing models. We focus on the fungibility of ETFs and there are some market-makers whose knowledge and expertise show that understanding in their execution"

Leighton Shantz, Employees Retirement System of Texas

UCITS ETFs gaining appeal

European ETFs must meet defined liquidity and diversification thresholds to qualify for Undertakings for Collective Investment in Transferable Securities (UCITS) status – which is highly sought-after as it provides prospective clients with a known level of quality assurance. Nearly three-quarters of survey respondents using UCITS ETFs said the proportion they trade has increased over the past three years.

UCITS products are also becoming easier to trade, with 66% of respondents saying their liquidity is improving.

"UCITS funds are large, there is a liquid market for them, they are standardised and easy for our board to understand. It's a feedback loop – a lot of institutions use them, encouraging newcomers to invest in them in turn," says Riccardo Rasi, Investment Manager at Fondazione Enasarco. 58% of respondents that trade UCITS do so via request-for-quote (RFQ) platforms. Just 12% use systematic internalisers (SIs), a regulatory definition encompassing investment firms that act as brokers for clients, and 30% use other means.

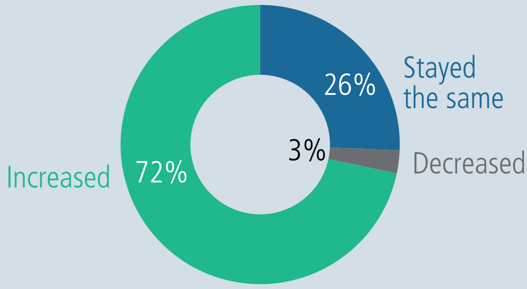
"In Europe you don't have a lot of liquidity on exchange in these products, so the typical way we trade UCITS when it comes to bigger clips, in order to get better prices, is via RFQs," says Christoph Hock, Head of Multi-Asset Trading at Union Investment.

The appeal of RFQ platforms is linked to the implementation of MiFID II, the European Union's transformative financial markets regulation, which came into effect in January. The framework tightened best-execution rules, leading the buy side not only to seek out the best price for each trade, but also to show evidence that they had done so.

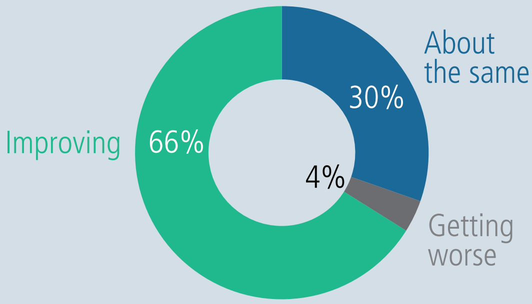
"MiFID II has led to an increase in the use of RFQ platforms. Through these venues, you are able to show best execution in a clean and simple manner," says James McManus, Investment Manager at Nutmeg in London.

Prices shown over an RFQ platform are saved and time-stamped, automatically generating an audit trail that institutions can use to demonstrate they sought out the best price.

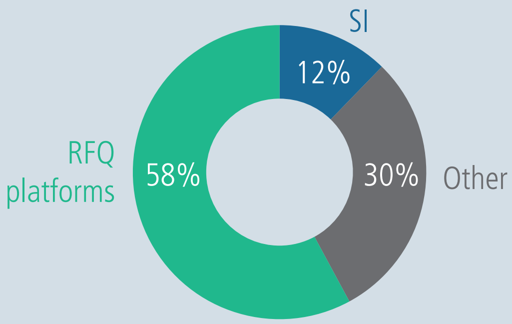
8. How has the proportion of UCITS ETF trading changed at your firm over the past three years?



9. How would you describe your experience with liquidity in UCITS ETFs over the past three years?

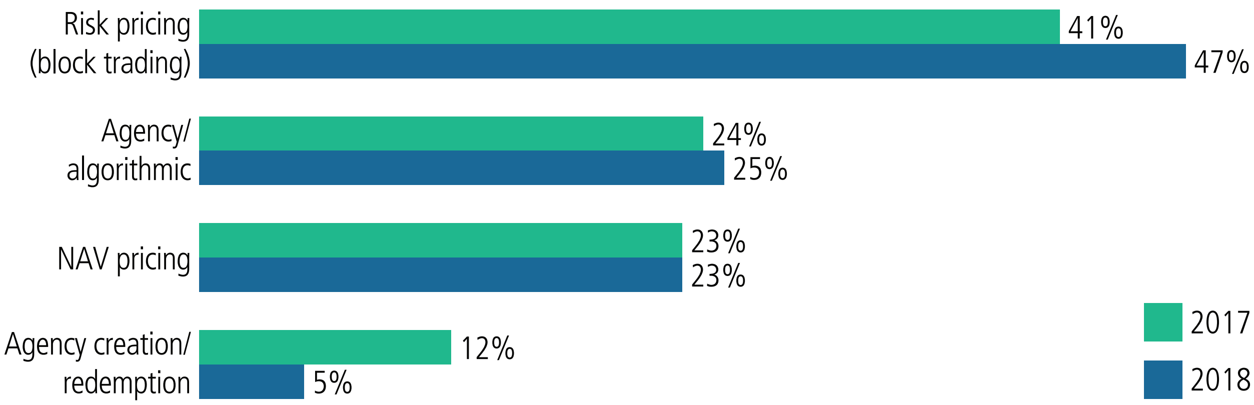


10. What is your preferred method of trading UCITS ETFs on risk?



How institutions are trading ETFs

11. What execution method do you most commonly use to trade ETFs?



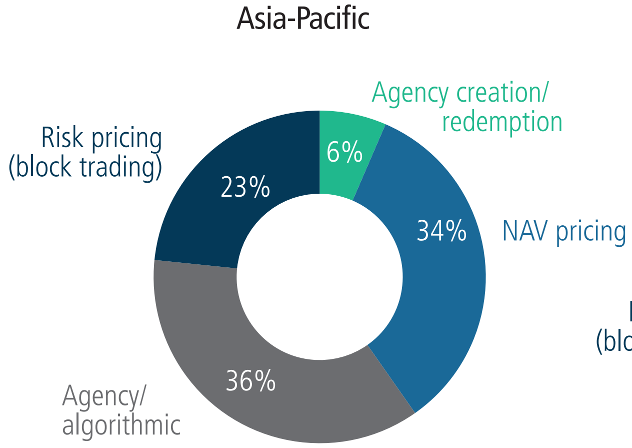
Risk pricing

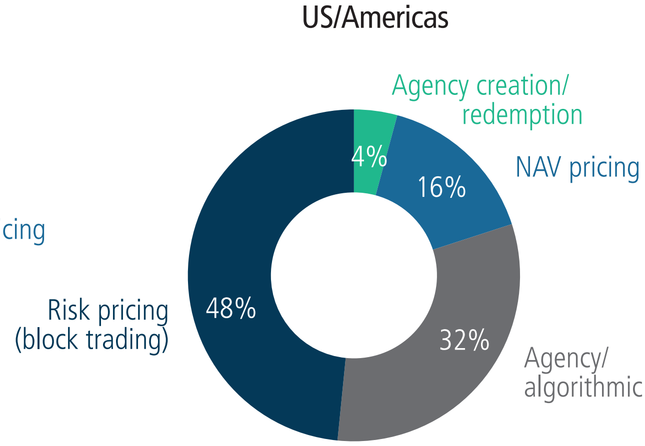
The increased popularity of risk pricing may help explain why independent market-makers are more favoured as counterparties this year than in 2017. Institutions understand that trading blocks on risk often represent the best means of execution when a number of counterparties are brought together in direct competition through an RFQ process.

Globally, 47% of respondents said they most commonly use this means of execution, up from 41% in 2017. Preferences for NAV pricing and algorithmic execution, on the other hand, were flat year to year. Independent market-makers specialising in ETFs are willing to commit their own capital to trades, which sharpens their competitive edge in the risk pricing arena. Competition in this space has driven down spreads and fostered broader take-up of risk pricing.

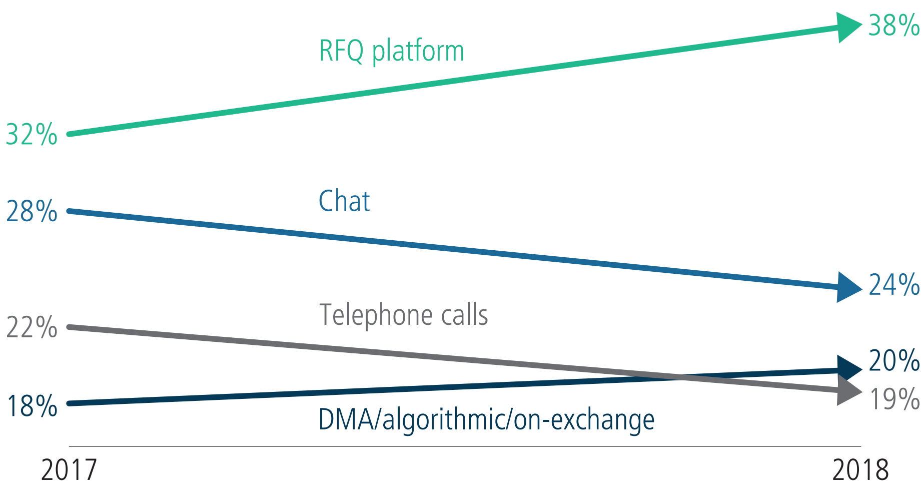
US/Americas institutions favour risk pricing to a much greater extent than their Asia-Pacific counterparts – by 48% to 23%. US/Americas institutions are trading larger tickets off-exchange and are likely more confident in their use of risk pricing. These figures are consistent with the 2017 results, but reflect marked progress in the uptake of risk pricing in the Asia-Pacific region.

12. Comparison of most common order types – Asia-Pacific versus US/Americas





13. How do you most commonly submit block trade orders for an ETF?



The allure of RFQ platforms

The bid-offer on the same ETF can vary depending on where a quote is sought out. This year's survey respondents favour electronic RFQ platforms, which offer direct and swift access to the liquidity of a series of preferred market-makers.

The survey finds increased take-up of RFQ platforms globally, with 38% of respondents saying they use these venues most commonly to submit block trade orders, up from 32% the previous year. The survey suggests European firms have increased the use of these venues the most, to 65% in 2018 from 41% in 2017.

"We have used RFQ platforms for many years for nearly all of our ETF flow. It allows us to go out to the two top liquidity providers and the others simultaneously, and achieve best execution very rapidly," says Sleep at Seven Investment Management.

Popular services such as Bloomberg RFQE, Tradeweb and RFQ Hub pit multiple counterparties against one another to win a trade, ultimately to the client's benefit.

"We've noticed spreads tighten as counterparties have been put in competition with their peers. In the past, we would call a bunch of brokers, but that produces wider spreads as the information starts leaking out. On RFQ plaforms, we are getting pricing virtually instantaneously," says Will Wall, Manager of Trading and Operations at US-based RiverFront Investment Group.

"It's very convenient to identify and execute at the best price from your choices"

Parinya Masertsri, Thai Life Insurance

There is also a correlation between respondents describing price competitiveness as their most important criterion in choosing a counterparty and RFQ platform adoption. Of the total number of institutions that said price competitiveness was their number-one concern, 45% said they use RFQ platforms most commonly for execution. In comparison, among institutions that prioritised criterion other than price, only 28% were using RFQs most frequently.

Asia-Pacific firms are earlier in the adoption process in terms of RFQ adoption, with 12% reporting these were their most favoured execution platforms. Large block orders are more commonly filled via algorithmic/direct market access (DMA) trading or bilaterally over the phone. However, RFQ adoption is picking up pace, say market participants.

Lui at DWS says take-up will accelerate, spurred on by heightened compliance concerns.

"We see electronic platforms as the wave of the future, especially in the post-MiFID II world, where we have to keep records and time stamps of every transaction. With an RFQ platform, every data point is stored in one central location, all the quotes and the times they were made can feed into our systems – it's the easiest way to comply with reporting requirements," he says.

"In the past, we would call a bunch of brokers, but that produces wider spreads as the information starts leaking out. On RFQ platforms we are getting pricing virtually instantaneously"

Will Wall, RiverFront Investment Group

EXECUTION STYLES

Institutions can fill large ETF orders in a number of ways:

Risk pricing
Trades are executed immediately at a transparent and fixed price. Information leakage can be mitigated by the immediacy of the transaction. Prices can be accurately compared across different liquidity providers, aiding in certainty of best execution.

Agency/algorithmic
The institution or its agent executes a transaction on exchange or other trading venues. Trades are generally executed piecemeal over some time period and tied to a benchmark, such as the volume-weighted average price or time-weighted average price.

NAV pricing
The trade is typically benchmarked to an ETF's official net asset value (NAV), plus a spread. The NAV is usually calculated using the closing prices of a product's underlying securities. The institution is exposed to any price impact and timing risk (the risk of any move in price between the time of the trade and when the NAV is calculated).

Agency creation/redemption
Institutions can work with a liquidity provider to instruct an agency creation/redemption, if the size is large enough. The price will be determined by the subsequent execution of the underlying securities. The benefits of ETF market liquidity are likely lost. Timing risk and the possibility of information leakage are introduced.

Conclusion

The 2018 institutional ETF trading survey reflects how institutions are becoming ever-more sophisticated with regard to counterparty selection, fund liquidity evaluation and execution methodology.

This year's findings reveal a focus on best execution and costs across the entire industry, leading investors to a more granular understanding of which counterparties are best suited to carry out ETF trades.

Larger and more complex trades create an advantage for firms that specialise in ETFs – such as independent market-makers. Institutional desire for price and cost certainty and a better understanding of liquidity have driven an uptick in risk pricing. Looking ahead, as institutions increase their use of ETFs, it will be interesting to evaluate how these trends evolve.

Survey respondent profile

ETF trading: Liquidity improving, trade sizes growing is based on a survey commissioned by Jane Street and conducted by *Risk.net*. Its findings are derived from surveys conducted with senior buy-side ETF traders around the world, complemented by a series of telephone interviews. This report outlines changing institutional sentiment around ETF liquidity, crtiteria for counterparty selection and preferred execution methods.

From March to May 2018, *Risk.net* surveyed 296 buy-side ETF traders globally.

- 26% of surveyed institutions have assets greater than $100 billion
- 21% have assets between $10 billion and $100 billion
- 26% have assets between $1 billion and $10 billion
- 27% have assets less than $1 billion

In terms of institutional investor types:

- 53% of responses were from asset managers/hedge funds
- 20% from wealth platforms/family offices/registered investment advisers
- 13% from insurance companies
- 5% from pension funds
- 9% from other entities

Geographically, the respondents' profile was:

- 36% of respondents came from US/Americas
- 35% from Europe
- 29% from Asia-Pacific

Percentages/totals are rounded to the nearest 1% and, as such, some figures may not total 100%.

A RISK.NET SURVEY REPORT, COMMISSIONED BY JANE STREET