



JULY 2021

CHARACTERISTICS OF THE FRENCH EQUITY OPTIONS MARKET

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Characteristics of the French equity options market

Options are derivatives that give the right, but not the obligation, to buy or sell a quantity of underlying assets (shares, indices, currencies, etc.) at a pre-agreed date or period and price. Equity options are popular instruments and can expose an investor to an equity index (such as the CAC 40) or a single security (a single underlying equity). The advantages of trading equity options rather than the underlying equities are the possibility of exposure to the underlying equities with a limited investment, creating significant leverage, and the possibility of short selling (Black, 1975). This implies that option investors must be informed and aware of the risks they are exposing themselves to. Creating a unique database of transactions and characteristics of French equity options, i.e. those whose most liquid equity market is in France, is an opportunity to present the attributes of this particular market during 2019.

The market for listed French equity options is particularly concentrated, with trading taking place mainly on two regulated markets: 49% of volumes are traded on MONEP in Paris (Euronext group) and 51% on Eurex (Deutsche Börse group), the German derivatives market. Small numbers of some of these options are also traded on Euronext Amsterdam, the Italian derivatives market and ICE. More than half of all trades take place outside the order book of organised trading platforms: on MONEP, 67% of option volumes traded were outside the order book in 2019, in the form of “blocks” of an average of 1,794 option contracts; on Eurex, options account for 55% of volumes, with blocks of an average of 1,454 contracts.

This market is also distinctive in that there are a very large number of instruments offered for trading for the same underlying equity (mainly due to a combination of different maturities and strike prices) and a small number of instruments actually traded on the market: only 2% of the instruments offered each day on Eurex are traded, 2.4% on Euronext. Moreover, 23% of the instruments traded on Eurex in 2019 were traded only once during the year (21% of instruments on Euronext). The volumes traded are concentrated on short-dated options and on options whose strike price is closest to the price of the underlying share. This is because the closer the expiration date, the easier it is to understand the price and volatility of the underlying share and decide whether or not it is worth exercising the option. Furthermore, options are often at their most sensitive when their strike price is close to the underlying share price, which explains the more intense activity in these options.

Lastly, this market is also characterised by a significant concentration of trading: of the 80 underlying equities on which options were traded on Eurex, the top 10 accounted for 73% of the volumes traded in 2019 (63% on Euronext). The amounts traded in options were concentrated around issuers (i) whose equity market is particularly liquid (Total, Axa, Société Générale, etc.); or (ii) issuers affected by specific news on their capital or debt situation in 2019 (Casino, Carrefour, Aéroport de Paris, etc.).

This finding confirms the dual hedging and speculative role of options. In the first case, option trading is linked to the dynamic monitoring of equity movements in hedge portfolios, but also to the fact that investors who use options for hedging purposes will favour options on liquid underlying assets, where hedging is easy and immediate. In the second case, option trading is linked more to the speculative interest of investors wishing to bet on expected share price movements. In fact, much recent empirical work shows that options trading – the significant ability that the options market has to anticipate an issuer’s upside or downside risks and events and consequently the price movement and volatility of the underlying equities – is informed.

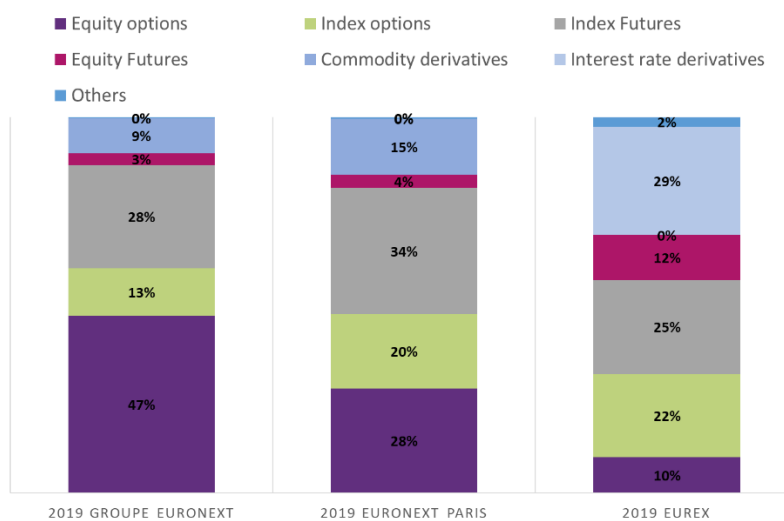
1. SIZE OF THE EQUITY OPTIONS MARKET FOR EUREX AND EURONEXT

By their nature, options are generally associated with an equity portfolio for hedging purposes or are intended to take speculative positions, either directional with regard to the price movement of the underlying equity, or based on volatility, by taking an exposure to the implied or realised volatility of the underlying equity (volatility trades). These speculative positions are facilitated not only by the ability to invest only the amount of the premium invested,¹ which creates a leverage effect that is greater the lower the premium invested, but also by short selling (Black, 1975). They can also be used as part of a yield strategy by selling the premium (carry trades).

The equity options market is an important market for the Euronext group: in 2019, 47% of the volumes of derivatives traded within the Euronext group were equity options (50% in 2018).² Of the 68.1 million equity options traded on Euronext, 60% were traded in Amsterdam, 37% in Paris and 3% in Brussels. These trading volumes by marketplace correspond more or less to the nationality of the underlying equities, since 99.9% of the options traded in Paris have French issuers as underlying equities and 97% of the options traded in Amsterdam have Dutch underlying equities. However, derivatives trading (all derivatives combined) accounted for only 7% of the Euronext group's total revenues, compared with 32% for the equity market. It should be noted, however, that part of the post-trade revenues (13% of the group's revenues) also came from derivatives trading.³

On Eurex in 2019, the volumes traded in equity options made up only 10% of trading on the platform, the rest being made up of interest rate derivatives (29% of volumes), futures (25%) and index options (22%). A breakdown of revenues by instrument type is not available for the Deutsche Börse group, to which Eurex belongs.

Figure 1: Total volumes traded on each stock exchange for each type of derivative instrument (as %)



Source: Euronext, Eurex, AMF calculations

¹ Note that the premium paid, i.e. the option price, is the maximum amount that one can lose as a buyer of a call or put option if the option is not exercised. However, as the seller of a call or put option, if the other party to the contract exercises the option, the seller is obliged to sell the underlying asset, thus exposing the seller of the call option to a potentially unlimited loss depending on how the price of the underlying asset changes. There are also other risks, such as liquidity risk (not being able to sell quickly) or counterparty risk (bankruptcy of the intermediary).

² The rest of the derivative volumes were mainly made up of trades in index futures (28% in 2019, 26% in 2018) or index options (13% in 2019 and 2018) and commodity derivatives (9% in 2019 and 10% in 2018). The total volume of derivatives traded within the Euronext group amounted to 144.1 billion contracts in 2019 (-3% compared with 2018, when 149 billion contracts were traded).

³ Figures from the 2019 mid-year annual report published by Euronext. Figures were similar for year-end 2018 (7% of total revenues or €44 million) and slightly higher than year-end 2017, when derivatives trading accounted for 8% of Euronext revenues.

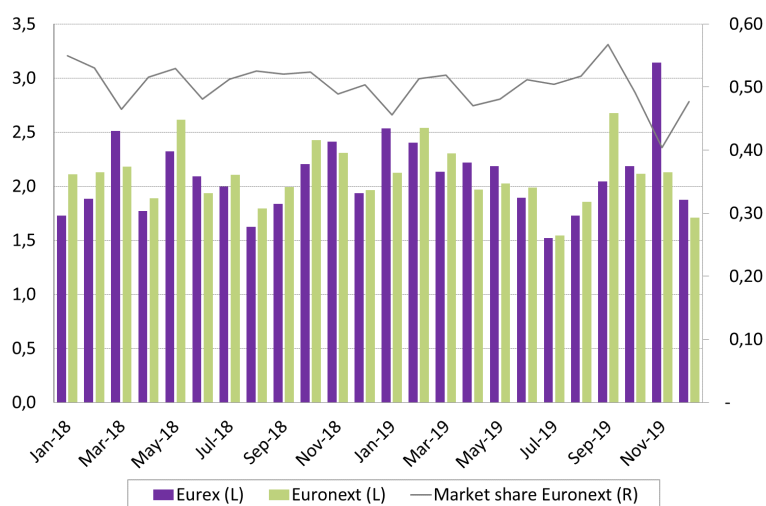
The term “French nationality” refers in the following to the concept of “jurisdiction” as defined by the Markets in Financial Instruments Regulation (EU) 600/2014 (MiFIR) with regard to transaction reporting: an issuer is considered to be “under French jurisdiction” if the most liquid market for its equities is in France, meaning that the AMF is its competent supervisory authority and as such receives all the transaction reporting imposed by MiFIR. Under MiFIR, equity options under French jurisdiction are also subject to French supervision. For simplicity, these French issuers’ equity options will be referred to as “French options”.

Options on 500 underlying equities from 13 countries – mainly from German (149), Swiss (89) or French (80) issuers – and volatility strategy options combining options and futures⁴ can be traded on Eurex. In 2019, only 14% of the equity options contracts traded (25.8 million contracts) were French options, compared with 40% for German options and 28% for Swiss options. The Euronext group offers options on 210 issuers, including 96 on Euronext Paris (92 of these options are on French issuers).

Overall, 63 French issuers have options listed on both markets, with Euronext offering options from 29 other French issuers and Eurex from 17 others. The total number of French issuers with options on at least one of the two markets is therefore 109 companies. The following analyses only include options on French equities (i.e. under French jurisdiction).

The volumes⁵ traded (in terms of number of contracts) in French options are divided roughly equally between Eurex and Euronext: in 2019, 51% of volumes were traded on Eurex compared with 49% on Euronext, a stable split since it was 49/51 in 2018 and remained relatively consistent when looking at trends in monthly volumes (Figure 2).

Figure 2: Monthly volumes of single underlying options on Eurex and Euronext (in millions of contracts traded) and Euronext market share (as a %)



Source: Euronext, Eurex, AMF calculations

The Euronext peak in September 2019 is likely to be linked to very high activity over several days and to the increase in off-book activity: in September, 1.96 million off-book contracts were traded, an increase of 40% compared with the monthly average for 2019.⁶ The Eurex peak in November 2019 (+44% of volumes traded compared with October) applied to most of the instruments traded and is explained by the change in Euronext’s IT platform

⁴ This popular product range allows investors to lower their margin costs by pooling their volumes in one place and “netting” their positions.

⁵ A trade consists of the purchase or sale of one or more option contracts: in most cases, one contract gives the right to buy or sell the equivalent of 100 equities. Thus, “volumes” are the number of contracts traded and are not multiplied by 100 unless otherwise stated.

⁶ Off-book contracts accounted for 72% of the volume of contracts traded that month, compared with an average of 66% for 2019. This increase was observed on many securities and does not appear to be concentrated on certain underlying securities or due to the presence of more market participants in that month.

(Optiq⁷); during the migration to the new platform, some market participants moved their volumes to the Eurex platform.⁸

2. CHARACTERISTICS OF THE INSTRUMENTS TRADED

In the rest of the analysis, the data used is taken from a database created by the AMF from Refinitiv data, which gives an extensive coverage of French options trades. Creating this database, which draws on multiple sources, provided an opportunity to improve the understanding and quality of the available data and to highlight certain quality problems with the European Financial Instruments Reference Data System (FIRDS). It was obtained by listing, for each underlying asset, all French options traded on Eurex or Euronext that were reported on Refinitiv during 2019 and whose characteristics are available in FIRDS. The final database includes French options trading data for Euronext Paris and Eurex sourced from Refinitiv, the characteristics of these instruments from FIRDS, and the underlying Euronext Paris equity market transactions received by the AMF. Overall, the data collected and cleaned is very close to the volumes published by Eurex and Euronext throughout 2019.⁹

The options market is characterised by a very large number of instruments: while the number of underlying equities appears to be relatively limited, the number of options offered for trading is extensive. Many of these options differ in terms of just one parameter: type of option (call or put), strike price, expiration date or maturity, physical or cash settlement, strike type. Furthermore, for certain highly liquid underlying equities, weekly options are also offered, i.e. options with a fixed maturity of one week.

The time at which the buyer can exercise is determined by the type of option: the vast majority of French options traded are “American” options, which simply means that they can be exercised at any time between the purchase and expiration dates. This type of option is the only one offered on Eurex. Euronext, however, also offers, for 43 of its underlying equities, “European” options, which can only be exercised at maturity. Nevertheless, only 3% of the options traded in 2019 on Euronext were European, or 1.3% of volumes.

The difference between call and put options also segments trading: call options accounted for more of the total volume of options (call and put) in 2019 on Euronext, with 51% of options traded (41% on Eurex), while put options accounted for the remaining volume. In terms of the number of instruments traded over the year, call options accounted for 46% on Euronext and 44% on Eurex.

Comparing FIRDS¹⁰ and the options actually traded on Eurex and Euronext, it is clear that there is a large gap between the supply of instruments offered for trading and the instruments actually traded (Table 1). Only 18% of the instruments offered on Eurex during 2019 were traded at least once (25% on Euronext).

Table 1: Total instruments offered for trading and actually traded over the year, by platform

	Euronext			Eurex		
	Traded	Available	%	Traded	Available	%
2018	22 350	93 038	24%	22 557	147 567	15%
2019	24 172	98 029	25%	26 790	150 170	18%

Source: MiFIR transaction reporting, FIRDS, AMF calculations

Note: About 3,000 French options were also traded on the Euronext Amsterdam platform and 1,300 on the Italian derivatives market.

⁷ See the [Euronext website](#) for the specifications of this new platform technology.

⁸ This peak only relates to French options, as the number of contracts fell by 2% for German single underlying options and by 28% for Swiss options over the same month.

⁹ A more complete presentation of the database and its level of coverage of volumes on the two platforms is available in the annex of the study “Effect of Speedbumps: Analysis of the Impact of the Implementation of EUREX’s Passive Liquidity Protection on French Equity Options”.

¹⁰

Examining the number of instruments offered for trading on a daily basis confirmed that Eurex offers more instruments: on average in 2019, the platform offered 32,513 instruments each day (33,827 in 2018), while trading involved an average of only 664 unique instruments each day, i.e. 2% of the instruments offered (1.5% in 2018). On Euronext, 25,051 instruments were offered on average each day in 2019 (23,924 in 2018) and trading took place on 591 instruments daily, i.e. 2.4% (2.5% in 2018). The daily variation in these spreads seemed to be stable over the year.

Figure 3: Distribution of the number of days on which each option was traded in 2019

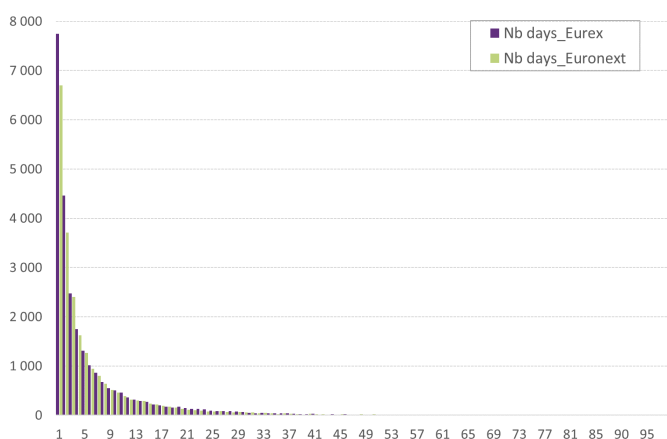
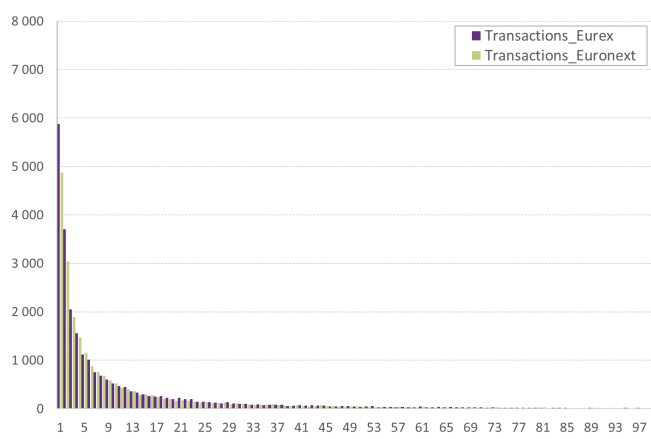


Figure 4: Distribution the number of transactions for each option traded in 2019



Source: Refinitiv, AMF calculations

Source: Refinitiv, AMF calculations

Note: In Figure 3, the x-axis shows the number of days on which an option was traded in 2019 and the y-axis shows the number of French options. Accordingly, 7,742 options were traded on only one day during the year on Eurex, and 6,703 options were traded on only one day on Euronext. Figure 4 shows, on the x-axis, the number of transactions that took place in 2019 for each French option traded and, on the y-axis, the number of these options. For example, 1,009 options were traded 6 times in 2019 on Eurex (and respectively, 880 options were traded 6 times on Euronext in 2019).

Note: Distributions are stopped at 100 days of presence and 100 transactions respectively.

The high number of instruments can also be seen in the distribution of the number of times each instrument was traded. On Eurex, 5,875 instruments, or 23% of the total number of instruments traded on the platform in 2019, were traded only once a year (4,876 or 21% of instruments on Euronext, Figure 3). Of these once-a-year instruments, half had a maturity of less than one month (2,746 on Eurex and 2,097 on Euronext). This shows that the sheer variety of these instruments makes it difficult for liquidity to be aggregated on a given instrument.

The number of days on which each option was traded during the year confirms the high turnover of these instruments, since 30% of the instruments traded in 2019 on Eurex were traded on only one day (29% of instruments on Euronext, Figure 3). Overall, these distributions confirm that options are only traded for a short time: 67% of instruments are traded less than 10 times on Eurex (66% on Euronext) and 80% of instruments are traded for less than 10 days on Eurex (also 80% on Euronext).

The analysis of the characteristics of the most traded instruments reveals several criteria of interest to investors, who prefer the shortest maturities and a minimum spread between the strike price and the current price of the underlying equity, as shown in the analysis below. The majority of investors prefer options with short maturities because the price and volatility of the underlying equity are easier to understand.¹¹ As a result, trading volumes are high for the shortest maturities (Figure 5): on Eurex, 5% of trading volumes in 2019 were options with a maturity of less than five days¹² (7% on Euronext). On Eurex, 29% of volumes are for options with a maturity of less than

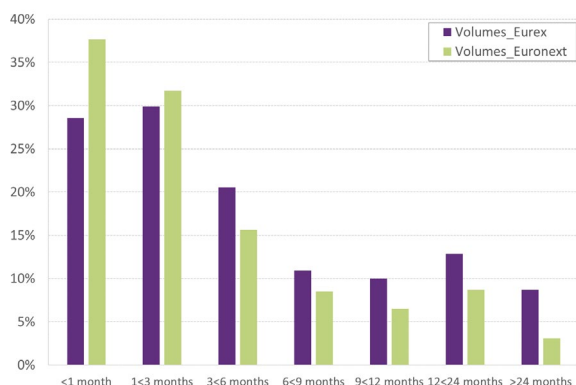
¹¹ Furthermore, in the low interest rate and low volatility environment of recent years (before the COVID-19 crisis), many yield-seeking investors were structurally selling options to cash in the premium: selling options out of the money (overwriting). This strategy of cashing in the option premium is even more effective for a short-maturity option where the time value of the option (theta) is important.

¹² The maturity of the option is obtained by taking the difference between the date where the option is traded and its expiration date.

one month (38% on Euronext) and only 9% of volumes are for options with a maturity of more than two years (3% on Euronext).

Figure 5: Trading volumes based on option maturity

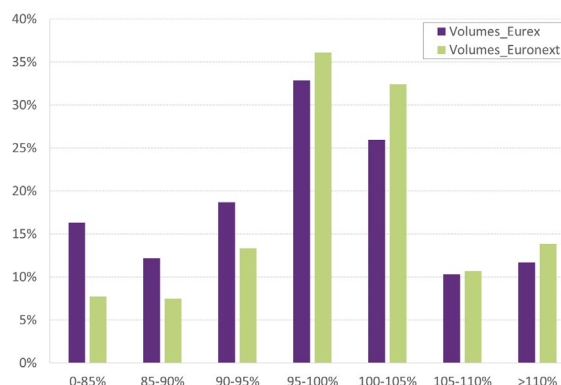
As a % of volumes traded in 2019



Source: Refinitiv, AMF calculations

Figure 6: Trading volumes based on the difference between the option's exercise price and closing price

As a % of volumes traded in 2019



Source: Refinitiv, AMF calculations

Similarly, the difference between the price of the underlying equity and the strike price is also an important parameter. This price gap is approximated each day using the ratio between the option's strike price and the closing price of the underlying stock, and expressed as a percentage. Chart 6 shows the volumes traded according to this spread and confirms the interest of investors in a minimum spread between the strike price and the price of the underlying equity, since on Eurex, 17% of the option volumes traded in 2019 had a strike price between 99% and 101% of the closing price of their underlying equity (23% on Euronext) and the volumes were concentrated around a 100% difference. This interest is explained by the search among directional or volatility investors for options that are highly sensitive to movements in the underlying stock and its implied volatility, or among structural sellers looking for payoffs, for options with high time value.

Combining the characteristics of maturity and difference in price from the underlying equity confirms the attractiveness of these criteria, since 30% of the annual volume involved options with a maturity of less than three months and a closing price difference of between 95 and 105% on Eurex (45% on Euronext). The lowest volumes over the year involved options with a long maturity (more than one year) and for which the payoff is negative at the time of the trade, i.e. put options with a strike price greater than 105% of the price of the underlying equity, and call options with a strike price of less than 95% of the price of the underlying equity.

3. LINKS BETWEEN THE OPTIONS MARKET AND THE UNDERLYING STOCK MARKET

The options market therefore tries to predict the movements of the underlying equities, and much recent empirical work shows that options trading is informed. Informed options trading can be described as the significant ability that the options market has to anticipate an issuer's upward and downward risks, and consequently the price movement and volatility of the underlying equities, together with its ability to anticipate the specific events of the underlying issuer.¹³ For example, the empirical literature agrees that equity options market participants not only demonstrate good information acquisition skills, but they also process information in a skilful way (An et al. 2014).

¹³ For example, Johnson and So (2012) show through a theoretical model and the analysis, from 1996 to 2010, of options with US corporate stocks as underlying assets that the options market reflects the information of informed investors and thus predicts the future earnings of the underlying firms. Similarly, on options whose underlying assets are the stocks of US corporations undertaking a stock split, Ghargori et al. (2017) show that option traders not only anticipate the volatility associated with the split, but also correctly predict the levels of stock volatility after the announcement.

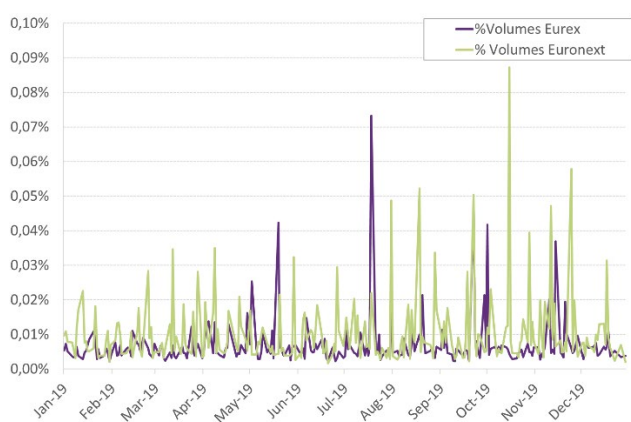
To better observe the reality of this finding, it is useful to compare the options market with that of their associated underlying stock market.

To compare the two markets at the level of each underlying equity, for each business day, the option volumes, i.e. the number of option contracts traded, were added up for each underlying equity and compared with the volumes traded on their underlying equities on Euronext. However, for each underlying market, the equity volumes traded were not taken into account when no option trading took place.

There was very little volume traded in French options compared with the market for their underlying equities. On average in 2019, 1,689 option contracts were traded per day on Eurex (1,809 on Euronext) compared with 102.4 million for their underlying equities on Euronext (79.8 million equities for options traded on Euronext). Taking into account the number of equities covered by each option contract (100 equities for 1 option in most cases), it can be argued that a comparison of volumes in terms of the number of options traded would result in option volumes of 1.0% and 0.7% of the underlying equities for Eurex and Euronext respectively. These ratios appear to be relatively stable over time.

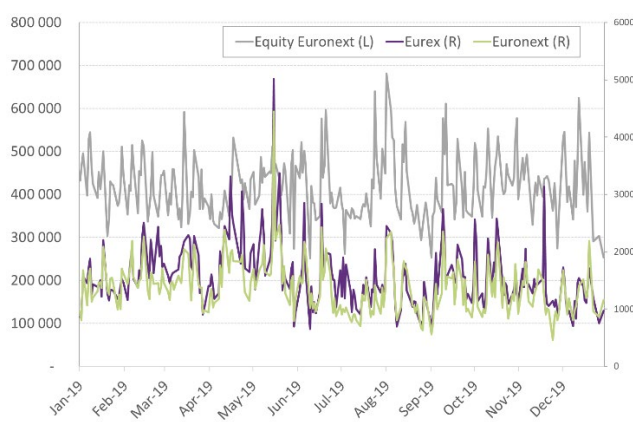
In terms of the number of transactions, for every 31 option transactions observed per day on Eurex, more than 350,000 transactions take place on the corresponding underlying stock market on average (26 and more than 280,000 times respectively for options on Euronext and their underlying equities).

Figure 7: Volumes traded on the options market compared with their underlying equities
As %



Source: Refinitiv, AMF calculations

Figure 8: Number of transactions in the options and equity markets
By number



Source: Refinitiv, AMF calculations

As illustrated by Figure 8, the number of transactions on the options market appears to follow the same daily movements as the number of transactions on the equity market, as do the volumes traded (Figure 7). This suggests a causal relationship between these different variables. However, the conditions and the number of points do not allow us to confirm this relationship.¹⁴

When looking at the volume of options traded by underlying equity, a significant concentration of trading becomes apparent: of the 80 underlying equities on which options were traded on Eurex, the top 10 accounted for 73% of the volumes traded in 2019 (63% on Euronext). The most traded options are those relating to Axa, Total, Société Générale, BNP Paribas and Orange. This concentration is much higher than that observed on the underlying market,

¹⁴ It should be noted that, with the data available here, the significance tests of the relationship between the variables are inconclusive: the volumes show significant autocorrelation, leading to the rejection of the independence hypothesis of the residuals from a linear regression. Furthermore, as the three markets may have an impact on each other, Granger causality tests were carried out in order to verify the possible direction of the causal relationship. None of the four possible relationships (for example, there is a causal relationship in the Granger sense from Eurex options market volumes to Euronext options market volumes and vice versa) is significant. Therefore, it is difficult to conclude that there is a link between the markets without further data or analysis.

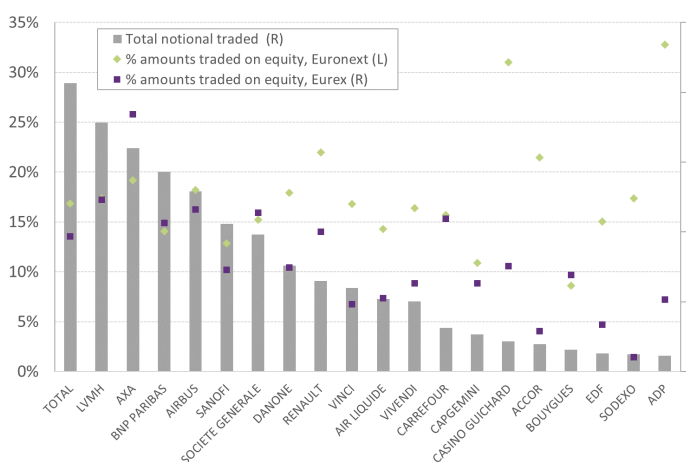
since the top 10 equities account for only 39% of the amounts traded on Euronext Paris in 2019 (out of the 80 equity securities).

Another way to compare options to their underlying equities is to approximate the amounts traded in the two markets. For options, the notional equivalent¹⁵ is used, i.e. the theoretical equity exposure that the contract can cover. By definition, this amount is fictitious because it consists of the investors' potential exposure if and only if they choose to exercise their option by the time the instrument expires. Therefore, by definition, it overestimates the investors' actual exposure. Nevertheless, the notional equivalent provides an approximation of the euro exposure of the options market and a comparison with the equity market. In 2019, the cumulative notional equivalent of the amounts traded in French options on the Eurex and Euronext platforms represented 20.6% of the amounts traded in their underlying equities on Euronext.

The amounts traded appear to be concentrated around several issuers, either because their equities are particularly liquid or because they were in the news during the year, and that had a strong impact on their price volatility. Figure 9 below confirms that the options with the largest notional amounts traded on the two platforms also involved significant equity trading, for example Total, LVMH, Axa and BNP Paribas.

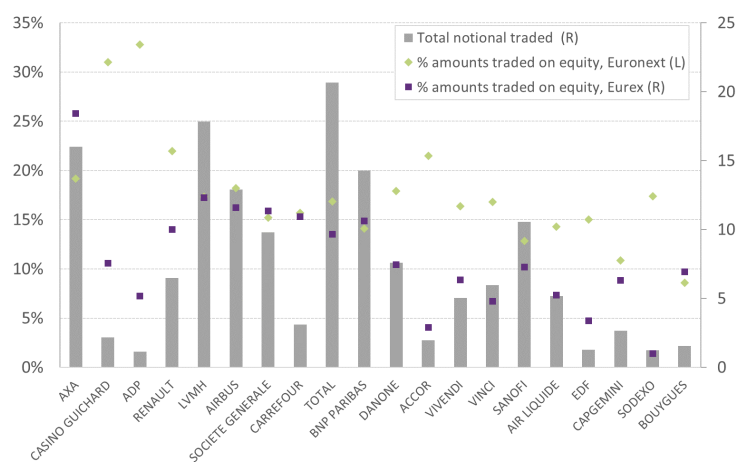
However, this condition of underlying equity liquidity does not appear to be essential for generating option volumes (Figure 10). Issuers with the highest options-to-equity trading ratios, a sign of strong movements on the options market, were Axa (notional amounts traded for 19% of equity amounts on Euronext, 26% on Eurex), Casino Guichard (31% on Euronext, 11% on Eurex), Aéroport de Paris (33% on Euronext, 7% on Eurex), and Carrefour (16% and 15% respectively). These last three issuers experienced specific capital or debt events in 2019. For those equities with significant news events in 2019, Euronext stands out with higher option trading volumes than on the German platform. This suggests that more trading is related to the characteristics and news of the French underlying equities on Euronext and that option trading is more related to the volumes of the underlying equities on Eurex.¹⁶

Figure 9: Most traded underlying equities: 20 largest total notional amounts traded on Eurex and Euronext and ratio of notional amounts to amounts traded in equities, by underlying equity
(In billions of euros, right scale, and as %, left scale)



Source: Refinitiv, AMF calculations. Note: This figure shows these indicators only for the 20 largest notional amounts traded on Eurex and Euronext.

Figure 10: Underlying equities with the most traded options compared with equities: 20 largest ratios of notional amounts to amounts traded in equities
(In billions of euros, right scale, and as %, left scale)



Source: Refinitiv, AMF calculations. Note: This figure shows these indicators only for the 20 largest options-to-equity trading ratios, and sorted by this cumulative ratio on Eurex and Euronext.

¹⁵ Calculated by multiplying the option strike price, the number of options traded in each contract (100 in most cases) and the number of contracts traded (i.e. the volumes as used in the rest of the analysis).

¹⁶ This may reflect a domestic bias with occasional investors in this market, prompted by news of the stock, favouring action on the domestic market.

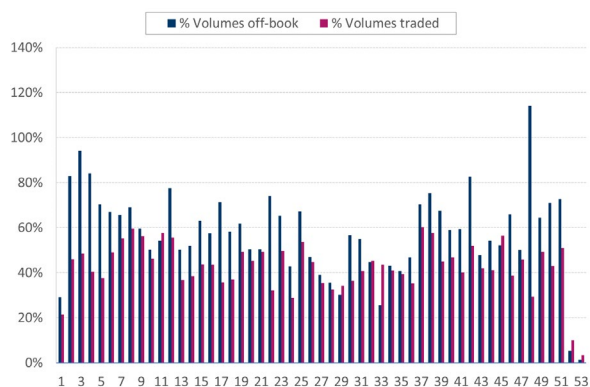
4. IMPORTANCE OF OFF-BOOK TRANSACTIONS

Platforms offer their members the possibility of trading outside the order book (sometimes called wholesale transactions). These transactions are pre-arranged directly between members without the platform’s intermediary and are then reported to the platform so that members can take advantage of the usual processing for an order book transaction: clearing, settlement and delivery, market reporting (transparency), etc. To take advantage of this functionality, transactions must meet certain conditions related to their price, nature or size. More than 90% of off-book volumes are block trades, i.e. large transactions (above a threshold set by the platform).

This type of trading is more prevalent on Euronext, where 67% of volumes were off-book trades in 2019, with an average of 1,794 contracts per off-book trade. On Eurex, 55% of 2019 volumes were traded off-book, with an average of 1,455 contracts per trade. Logically, these off-book trades make up only a small proportion of the total number of transactions: 2% of the total number of transactions on Eurex in 2019 and 3% on Euronext (i.e. only 8,091 and 9,231 transactions respectively). On the order book, the average number of contracts traded is much lower, 23 and 24 on Eurex and Euronext.

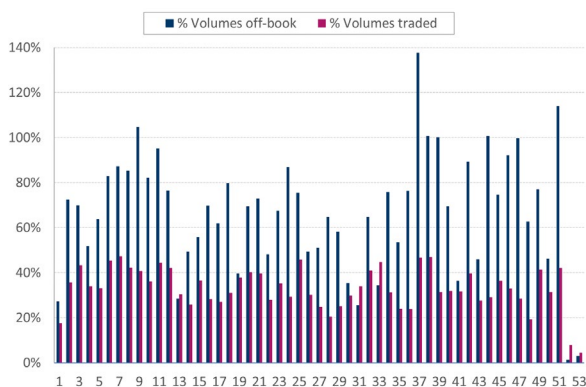
On the Eurex platform, 5% of transactions are classified as “strategy”, for which no price is indicated. These are probably option trades of volatility strategies combining options and underlying equities.¹⁷ They involve most of the underlying equities (75 out of 80) and accounted for 4% of the volumes traded in 2019 on Eurex. Unfortunately, it is not possible to identify these transactions on the Euronext platform. These transactions have been excluded from the following figure.

Figure 11: Volumes traded on Eurex by type of transaction (block or book), expressed as average weekly volumes
As a % of weekly volumes



Source: Refinitiv, AMF calculations

Figure 12: Volumes traded on Euronext by type of transaction (block or book), expressed as average weekly volumes
As a % of weekly volumes



Source: Refinitiv, AMF calculations

To verify the distribution of these trades over the year, weekly volumes are analysed by comparing on- and off-book volumes to average weekly volumes over 2019. The graphs in Figure 11 and Figure 12 confirm that, on both markets, the breakdown between on- and off-book trading appeared to be stable during 2019, apart from the slight spike in block trades on Euronext in September, which has already been highlighted in the first part of this study.

Overall, 33% of volumes on Euronext and 41% of volumes on Eurex are on-order-book transactions, and this distribution appears to be relatively stable over time.

¹⁷ This popular product range allows investors to lower their margin costs by pooling their volumes in one place and “netting” their positions.

Table 2: Breakdown of volumes, transactions and instruments by type of transaction

	Type	Volumes	%	Nb transactions		Nb options	Nb underlyings	Average Volume
Eurex	bloc	11 768 684	55%	8 091	2%	3 322	67	1 455
	Strategy	873 513	4%	20 349	5%	5 673	75	43
	trade	8 720 107	41%	372 797	93%	24 836	80	23
Euronext	bloc	16 560 528	67%	9 231	3%	3 505	64	1 794
	Strategy	<i>Not available</i>	-	<i>Not available</i>	-	-	-	-
	trade	8 202 477	33%	342 449	97%	22 876	88	24

Source: Refinitiv, AMF calculations.