

REAL ESTATE AND FINANCIAL MARKETS: NEW INVESTMENT OPPORTUNITIES WITH THE PARISSQM INDEX



With the launch of a new futures contract on Paris real estate from Euronext, a new and innovative property investment tool is now available for trading on the derivatives markets. This standardised derivatives product is based on the PARISSQM index and offers new ways to invest in the real estate market.

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Euronext, the leading pan-European exchange, launched a futures contract on the Paris property market in 2019. Based on a partnership with index agency Compass Financial Technologies and real estate broker Kalstone, this is the first futures contract that offers exposure to Paris real estate. Created as a bridge between the physical real estate market – the most active asset class in France – and the financial markets, this new instrument allows real estate investors to better manage, diversify and hedge their portfolios. This innovative tool is part of Euronext's strategy to widen and diversify the range of financial contracts it offers, particularly on the derivatives markets, in order to meet investors' needs and contribute to financing the real economy.

THE PARISSQM INDEX

Publication:	Published every second Friday at 17:30 CET
Currency:	€
Observation period	2 weeks, ending 6 weeks before the week of publication
Area of observation:	Paris, France
Database:	PARISSQM is solely based on data from BIEN, the Paris Notaires Service database. A data history of more than 10 years is available.
Launch date:	14 May 2018
Tickers:	Bloomberg: PARISSQM Index Reuters: .PARISSQM
Index administrator:	Compass Financial Technologies



The proper hedging of real estate risks is of the utmost importance. Risk management theory never said that only stock and bond risks should be managed. All economic risks should be managed.

Robert J. Shiller²

A NEW BENCHMARK PRICE FOR PARIS RESIDENTIAL PROPERTY PER SQUARE METRE

The Euronext futures contract is based on the PARISSQM index (SQM standing for 'square metre'), which was created by the index calculation agency, Compass Financial Technologies, and real estate broker, Kalstone. Based on real transaction data collected by the Paris Notaires Services¹ (the BIEN database), PARISSQM is the first residential real estate index to serve as an underlying for a listed derivatives product. The index has been published every two weeks since May 2018 and calculates the reference price in euros for a square metre of Parisian residential property.

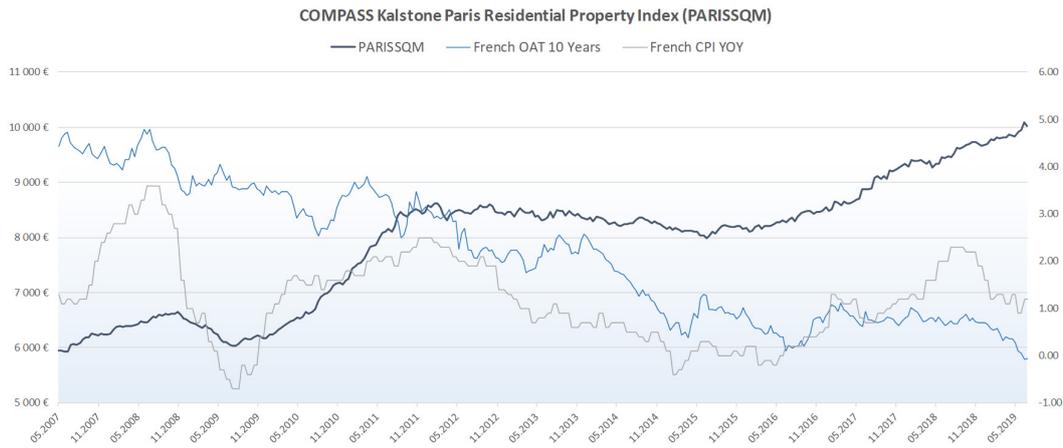
Before this index was launched, most of the indices or indicators on the real estate market were based on estimates or provisional sale agreements. The PARISSQM index is unique in having a methodology based on real and certified transactions. The Paris Notaires Services database is considered to be the most reliable and exhaustive source for Paris real estate transactions. This database covers more than 70% of the real estate transactions for Paris.

The methodology used to build the PARISSQM index was designed specifically to:

- provide a representative price per square metre transacted on the Paris real estate market;
- use reliable and incontestable data;
- create a reactive index;
- be compliant with the latest index regulations (BMR);
- and be easily replicated, allowing the creation of comparable reference indices for other cities in the future.

¹ All property transactions in France must be made through a 'notaire', a legal specialist who is a public official acting on behalf of the French state

² © 2008 by Robert J. Shiller, 'Derivatives Markets for Home Prices'



Historical value of the PARISSQM index since May 2007

1 CONTRACT = 1 m²

A futures contract is an agreement between two counterparties to buy or sell an asset, at a predetermined price and at a specified time in the future. The Euronext Paris real estate contract allows investors to buy or sell a pre-determined quantity of a standardised underlying, here the index value of a square metre of Parisian real estate, at a date (the contract expiry date) and price fixed in advance.

The aim of the contract is to meet the needs of investors who have exposure, or wish to have exposure, to the Paris residential real estate market. While real estate is the most represented asset class in France, investing in real estate remains quite costly and complex. This contract provides all types of investor with a flexible and low-cost tool to manage their property exposure. It can be used for diversification, as a hedging strategy, or even to build a portfolio on a real asset class.

By investing through the Paris real estate futures contract, where one contract equals one square metre, investors can gain synthetic exposure to the real estate market. While this strategy does not offer a rental yield, it does remove or reduce the constraints linked to investment on the physical market, such as costs of entry (legal fees) or capital requirements. The costs linked to buying or selling a real estate futures contract are relatively low (less than 1% for administration and brokerage fees) compared to the costs of making a physical investment in the property market (approximately 8%).

Due to the nature and complexity of its underlying market, this futures contract is financially or cash settled. This means that there is no delivery of a physical property at expiry. At expiry, the contract price corresponds to the last value of the PARISSQM index. If the price of the contract at expiry is higher than the price agreed upon at the creation of the futures contract, the buyer makes a profit and the seller a loss. The contract can be traded in real time during Euronext market trading hours and buyers or sellers of the futures contract can close their positions at any time, without having to wait for the expiry date. Before expiry, the contract price reflects the price expectations of all the market participants for the contract expiry.

Specifications of the Euronext real estate contract:

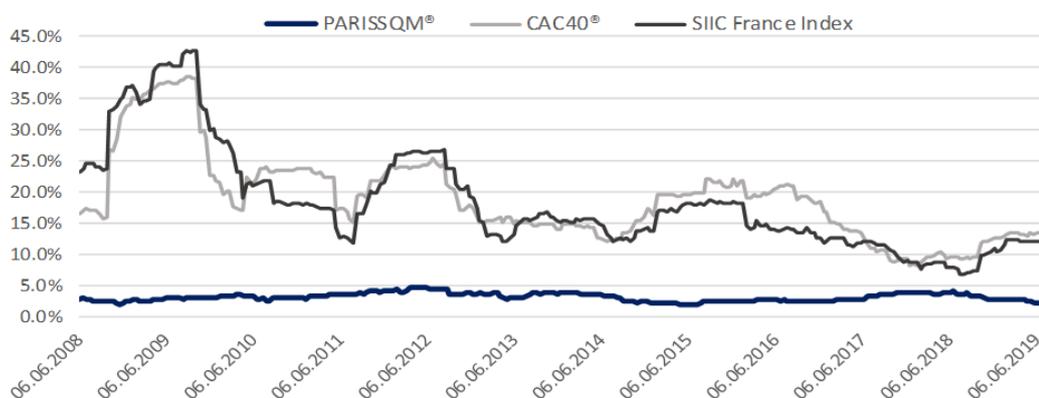
- The contract is listed in euros on Euronext's Paris market.
- 1 contract = 1 square metre (m²)
- It is cash-settled against the PARISSQM index by the clearing house (LCH SA)
- An initial deposit of 4%³ is required
- Transaction costs are €3 per contract (<0.03%)
- The contract can be accessed via any financial intermediary (brokerage firm) that is a member of the Euronext Derivatives market

To invest in the Euronext real estate futures contract, an initial margin of 4%³ is required by the clearing house. The clearing house is the entity that manages the transactions executed on the market: it acts as the intermediary between the buyer and the seller, the central counterparty that prevents the default risk. The clearing house implements risk management mechanisms, based principally on the initial margin, which are a pre-requisite for any trade. This initial margin is re-evaluated daily, according to the daily settlement price, through the daily margin calls. This is a standard and regulated process, put in place to protect the market and market participants from other participants defaulting.

³ Estimated amount for March 2020 by LCH SA

The example below shows the leverage effect and margin calls process. Taking a price of €10,000/m², the initial deposit would be €400 for one contract (4% of the nominal value). The investment leverage is defined by the ratio of the investment value and the amount allocated to put this investment in place. Here the ratio would be 25 (€10,000/€400). To put in place a strategy for a studio apartment of 20m², the investor should allow: 20 x 10,000 x 4% = €8,000, for a face value of 20 x 10,000, = €200,000, with the same leverage (€200,000 / €8,000 = 25).

- If the price per m² decreased from €10,000 to €9,700 (3% decrease), an investment in 20m² would lose an equivalent of 20 x (10,000 – 9,700) = €6,000. The investor's account balance (initial deposit minus the margin call) would be €8,000 – €6,000 = €2,000. As this amount is lower than the initial deposit required by the clearing house in order to acquire a position on 20 contracts (4% x 20 x €9,700/m²= €7,760), the investor would need to credit their account with €5,760 (€7,760 – €2,000).
- If the price per m² increased from €10,000 to €10,300 (3% increase), an investment in 20m² would result in a gain equivalent to: 20 x (€10,300 – €10,000)= €6,000. The clearing house would credit the investor's account with €6,000.



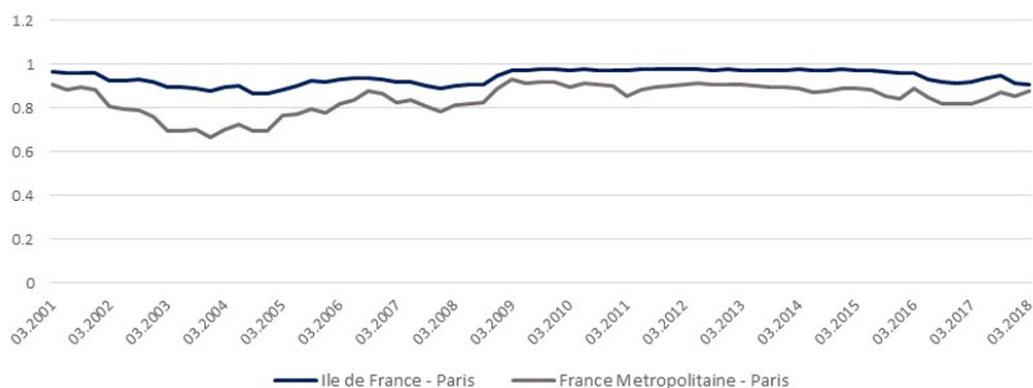
Annual volatility 2008-2019: PARISSQM / CAC 40 / SIIC France Index.

The annual volatility, which represents the magnitude of change over a year, is estimated between at 3% and 7%. It is lower than the volatility of listed real estate investment companies (approximately 18%). As a reminder, the annual volatility of the French CAC 40 Index since 2007 has been 19%.

PARIS REAL ESTATE AS THE UNDERLYING

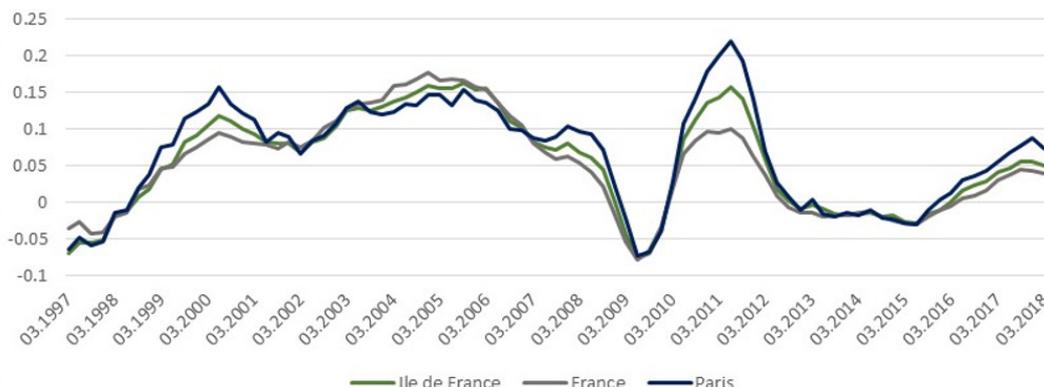
The success of a futures contract relies on an underlying with a reference price that the market can easily understand and use. In the residential property market, assets are relatively homogenous, which allows the calculation of a consistent reference price. This is more complicated to identify on the commercial real estate market, where prices are more varied.

Because it is based on a reference price per square metre, the PARISSQM index can be used easily by a broad audience, including the retail market. The price per square metre of Paris real estate has always been a benchmark for French property, and the recent price increase, with the price of Paris residential real estate now at over €10,000 per square metre, has seen a surge in international interest in this market. There are approximately 50 million square metres of residential property in Paris, representing a value of €470 billion.



Correlation of variations per trimester over 5 years for Ile de France and France Metropolitaine

It is useful to note that the PARISSQM index can also be used as a reference in the long-term over a wider area – the Paris region (Ile de France), or the whole of France (France Metropolitaine).



Annual variation between Ile de France / France / Paris property prices.

There is significant international interest in Paris real estate from various types of investors, and a growing interest over the last few years in the residential market in particular. Having disengaged significantly in the 1990s due to the low profitability and numerous constraints of the rental market, institutional investors look to be re-entering the market and are favouring it over other asset classes – particularly where equities and similar classes look to be vulnerable at the top of the cycle.

An investment tool for a broad range of investors

- In a tight market situation, investors who have not found a physical asset to buy or who do not have the means to purchase a whole property can use the Euronext futures contract to invest in real estate, without the constraints of property management and with lower capital requirements.
- Investors wishing to reduce the risk linked to their real estate investments can use the futures contract to hedge their exposure without selling their properties.
- The PARISSQM index is designed to be used by any participant wishing to have exposure to Paris real estate, through a dynamic reference price, based on actual and certified transactions.
- As the index is licensed, financial institutions can create Structured Products, ETFs or Certificates based on the PARISSQM.



The Euronext Paris Real Estate futures contract is considered to be a financial product, and therefore is not included in the scope of the French Property Wealth Tax (Impôt sur la Fortune Immobilière or IFI).

The Paris Residential Real Estate futures contract can be traded on the Euronext regulated market through intermediaries (banks or brokerage agencies) that are members of the Euronext Derivatives markets.

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Euronext is the leading pan-European exchange, covering Belgium, France, Ireland, The Netherlands, Norway, Portugal and the UK. With close to 1,500 listed issuers worth €4.5 trillion in market capitalisation as of end December 2019, Euronext has an unmatched blue chip franchise that includes 26 issuers in the Morningstar® Eurozone 50 IndexSM and a strong diverse domestic and international client base. Euronext operates regulated and transparent equity and derivatives markets and is the largest centre for debt and funds listings in the world. Its total product offering includes Equities, FX, Exchange Traded Funds, Warrants & Certificates, Bonds, Derivatives, Commodities and Indices. Euronext also leverages its expertise in running markets by providing technology and managed services to third parties. In addition to its main regulated market, Euronext also operates Euronext GrowthTM and Euronext AccessTM, simplifying access to listing for SMEs. The Norwegian stock exchange and its clearing & settlement subsidiary, together operating as Oslo Børs VPS, joined Euronext on 17 June 2019.

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