REAL ESTATE

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Grand Paris project: beyond the CBD office investment opportunities

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Executive summary

By 2030, the €26 billion Grand Paris project will add a further 200km to the capital's transport network and is estimated to generate a positive economic impact of $29 billion

- Paris office submarkets stand to benefit more from the structural changes compared to the CBD
- Saint Denis and Saint Ouen in particular to offer superior returns for a modest risk premium relative to the CBD
- Malakoff and Gennevillers are to benefit relatively less, offering modest projected returns for a high risk premium relative to the CBD

Introduction

Paris is the largest economy amongst the EU28 NUTS 2 level regions[1] and the economic impact of the €26 billion Grand Paris project is expected to generate $29 billion of net new money to the local economic supply chain. This compares favourably to other worldwide infrastructure development projects.

Figure 1: Economic impact of major worldwide transport infrastructure schemes

City	Project	Economic impact $ billion
Paris	Grand Paris Project	29
New York	2nd Avenue subway	27
London	Cross Rail	23
Dubai	Metro	6

Source: JLL.

By 2030, the infrastructure improvements will add a further 200km to the capital's transport network and deliver or upgrade 68 metro and RER stations. Overall, Paris will benefit from six new metro lines and several existing line extensions.[2] This will not only improve the daily journeys of two million passengers, but also support the growth of several specialist hubs outside the Central Business District (CBD). For example, health in Villejuif and television and cinema in Saint Denis.

In 2024, the French capital will also benefit from hosting the Olympic Games in the Saint Denis area of North Paris. According to JLL, the games will generate an economic impact of between €5.3 to €10.7 billion as well as 119,000 to 247,000 jobs.

The real estate market

The Paris office market offers investors the highest volume of stock across Europe (17.6 million sq m) and the second highest level of liquidity following Central London (an average of €7.0 and €11.6 billion per annum respectively).[3] Over 2017, prime office yields continued to contract below pre-Global Financial Crisis (GFC) levels in the CBD (3.0%) and La Défense (4.1%) areas, driven by high levels of competition for the best assets.

Moreover, Paris CBD capital growth trends since 2001 suggest that yields may experience an outward shift in the medium term. Thus, we believe there is better value to be found in edge of CBD submarkets, particularly those benefitting from the *Grand Paris* project. We expect cost-conscious occupier demand for offices to shift from the CBD to bordering areas where rents are cheaper and larger floor plates are available. According to agents, the key driver behind this trend is occupier consolidation and the search for higher quality space above 5,000 sq m. Occupiers are prepared to compromise on location in order to secure space at a more reasonable price relative to the CBD.[4]

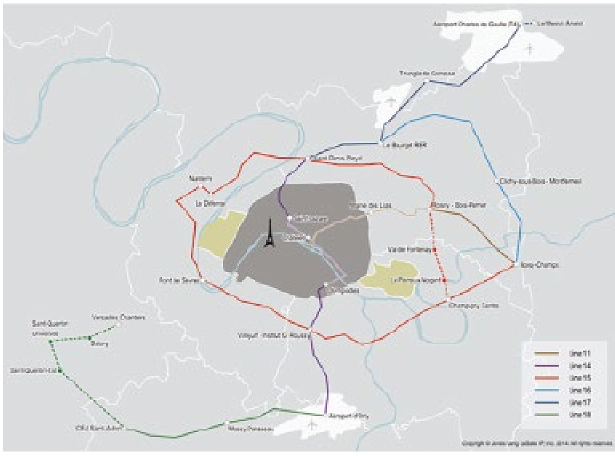
Select office submarkets to benefit from infrastructure development

In view of the major transport improvements, we reviewed office investment opportunities in ten Paris submarkets relative to the CBD (shown in the table below).

Study office submarket			
1	Gennevilliers	6	Suresnes
2	Saint Denis	7	Montrouge
3	Saint Ouen	8	Malakoff
4	La Défense	9	Bagneux
5	Nanterre	10	Villejuif

Source: JLL, M&G Real Estate, December 2017.

Fig 2: Grand Paris Project and study submarkets



[1] Nomenclature of territorial units for statistics. Paris region GDP in 2015: €659,796 million vs average of €50,234 million across all NUTS 2 regions. Source: Eurostat.

[2] New metro lines 11, 14, 15, 16, 17 and 18, and extensions to RER B and E and metro lines 1, 4, 10, 12.

[3] 10-year average. Source: PMA, Autumn 2017.

[4] CBRE IDF Q4 17 report.

Eight out of the ten study submarkets highlighted in red (on the map on the previous page) lie directly on a future Grand Paris project metro line station. Seven of these lie directly on planned metro line 15. In addition, the office submarket of Villejuif will also benefit from new metro line 14 as well as 15. Finally, Saint Denis will benefit from lying at the intersection of future metro lines 14, 15, 16 and 17.

Only Malakoff to the south and Gennevillers to the north of the CBD, both highlighted in green, lie adjacent to future metro line 15.

As our total return projections have a five-year time horizon, the study submarkets associated with Grand Paris project completion dates by 2022 are more likely to receive a boost to their outlook performance.

Figure 3: Grand Paris Project phased completion dates in study submarkets

	Grand Paris Project							Line extensions		Earliest completion
	14 North	14 South	15 South	15 East	15 West	16	17	RER E	4	
Saint Ouen	2019									2019
Bagneux			2022						2020	2020
Montrouge			2022							2022
Villejuif		2023	2022							2022
Saint Denis				2025	2027	2023	2023			2023
La Défense					2027			2024		2024
Nanterre					2025			2024		2024
Suresnes					2025					2025
Gennevilliers										–
Malakoff										–

Source: M&G Real Estate, JLL.

Assessing submarket potential

We assessed a range of location and property performance criteria in order to form views on the study submarkets' five-year total return prospects relative to the CBD, which are shown in the summary table below.

Figure 4: Study submarkets score criteria

Location indicators	Weight	Score criteria	Rationale
Residential	5.0%	(i) % of private housing (ii) price of apartments psm	The higher the better
Access	7.5%	(i) drive time to Boulevard Haussman (ii) public transport journey to St Lazare station (iii) drive time to Charles de Gaulle (CDG) airport	The lower the better
Current infrastructure	10.0%	(i) drive time to Paris A86 ring road (ii) number of available public transport modes: metro, RER lines, buses (iii) connections to airports (CDG, Roissy etc)	The more the better
Planned infrastructure	15.0%	(i) *Grand Paris* project: number of new metro lines to pass through submarket (ii) Other transport plans: existing line extensions	The more modes/earlier delivered the better
Urban development	5.0%	number of existing and planned Zone d'Aménagement Concerté (ZACs)*	Point system applied
Image	5.0%	(i) safety (ii) pedestrian friendly (ii) residential quality (iv) leisure offer	Point system applied The higher the better
Business mix	7.5%	% of office based jobs	The higher the better
Occupier incentives	5.0%	Taxe sur les bureaux – tax imposed on tenants to occupy space	The lower the better
Developer incentives	5.0%	Redevance sur la création de bureaux – imposed on developers that construct buildings for office use	The lower the better
Property indicators	**Weight**	**Score criteria**	**Rationale**
Availability	10.0%	% vacancy as at 2015 – latest data available across all submarkets	The lower the better
Absorption	15.0%	number of years to achieve full occupation of available stock and pipeline	The fewest estimated the better
Prime rent	10.0%	maximum over 2005-15 period	The higher the better
	100%		

*Concerted planning zones. Source: M&G Real Estate, Q3 2017.

Location criteria includes subjective indicators such as image and urban development potential, but also road access as well as current and future public transport infrastructure. Property criteria includes market fundamental indicators like the availability of stock and absorption (defined as the estimated number of years to full occupation based on historic average take-up figures). Both types of market criteria were developed to assess whether the study submarkets would offer favourable occupier incentives and an attractive mixed use environment to tenants considering relocation.

Following the review of each indicator, each submarket was allocated a percentile score (100 = best, 1 = worst) and ranked (1 to 11 including the CBD). The indicators were weighted with planned transport infrastructure, a reflection of the Grand Paris project impact, receiving the highest weight of 15%. We then compared the results to the risk (hurdle rate) inherent to each submarket, enabling us to identify the most attractive opportunities.

Scores and rankings

Based on both location and property performance indicators, the more mature CBD market, the study's benchmark, is unsurprisingly the clear winner with an overall weighted percentile score of 100 and the top ranking.

Figure 5: Weighted location and property percentile scores (100 = best, 1 = worst) and rankings

	LOCATION Weighted Percentile scores	Rank	PROPERTY Weighted Percentile scores	Rank	Total Weighted Percentile score	Rank
CBD	70	2	100	1	100	1
Saint Denis	100	1	49	7	83	2
Saint Ouen	67	3	40	10	56	3
Villejuif	42	4	55	4	50	4
Bagneux	36	5	59	2	49	5
La Défense	27	6	55	3	41	6
Nanterre	20	8	47	9	31	7
Suresnes	13	9	49	6	27	8
Montrouge	9	10	48	8	24	9
Malakoff	1	11	53	5	22	10
Gennevilliers	24	7	1	11	1	11

Source: M&G Real Estate, Q3 2017.

Saint Denis follows with an overall weighted percentile score of 83, ranking second. It achieves the highest percentile score of 100 for a number of indicators including planned infrastructure, with four new metro lines due to intersect it; urban development (8 Zone d'Aménagement Concerté (ZACs) including c.1.2 million sq m of existing and planned office and mixed use space); and occupier incentive scores, indicating that tenants in this submarket are charged the cheapest rate to occupy office space (€4.92/sqm/pa). In contrast, Saint Denis' availability property indicator is disappointing with a vacancy rate of 8.7% in 2015 (last available data).

In third place, Saint Ouen achieves a total weighted percentile score of 56. Saint Ouen's strengths lie in its low access times to key transport hubs, such as Boulevard Haussmann, Saint Lazare station and Charles de Gaulle airport (30 minutes maximum). The submarket will also benefit relatively early from the completion of the north section of metro line 14 in 2019. In terms of property indicators, it is estimated that it will take 5.2 years to occupy the existing and pipeline office space.

In fourth place, Villejuif, achieves an overall weighted percentile score of 50. This office submarket will benefit from two new metro lines and performs well in terms of low developer (€93.15/psm/pa) and occupier costs (€4.92/sqm/pa). In addition, Villejuif benefits from the tightest availability with a vacancy rate of 1.7%.

At the bottom of our ranking is Gennevilliers with the lowest weighted percentile score. With no Grand Paris project metro lines planned in this area, this office submarket obtains the poorest planned infrastructure score, the most highly weighted among location indicators. In addition, when measured against all three property indicators it comes bottom.

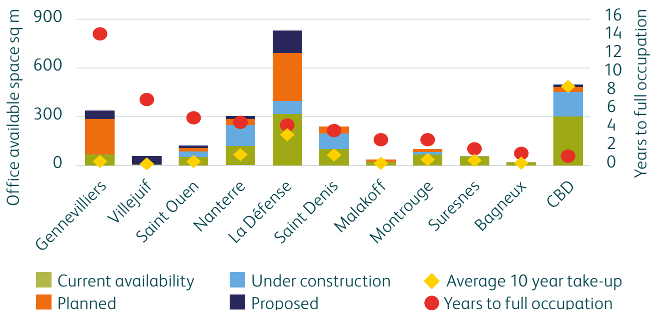
Forecasting five-year total returns

Rental growth forecasts

The property performance scores were key to forming views on forward-looking rental growth in the study office submarkets. In particular, our absorption analysis of estimated years to full occupation highlighted that the submarkets most at risk of a drop in rents in the short term are Gennevilliers and

Villejuif with 14 and seven years respectively to full occupation. Conversely, the CBD, Bagneux and Suresnes areas are among the tightest markets with an estimated less than two years to full occupation. We also overlaid the outcome of the more subjective location indicators into our views on future rental levels.

Figure 6: Estimated years to full occupation



Source: M&G Real Estate, Q3 2017, PMA.

Four out of the ten study office submarkets are projected to generate negative rental growth over the next five years. The average five-year rental growth outlook in Gennevilliers is unsurprisingly the poorest among the study submarkets. This submarket ranks low in both our location and property rankings. We also forecast Villejuif to generate negative rental growth in the short term despite achieving fourth position in our overall ranking. We have, however, allowed for an uplift in rent levels from 2022, once the southern section of metro line 15 is completed.

Figure 7: Study office submarkets rental growth forecasts 2017-22

Study submarket	5-year average rental growth forecast
Gennevilliers	Below -2.5%
	Between -1.1% and -2.5%
Nanterre, Villejuif, Malakoff	Between -0.1% and -1.0%
Suresnes, Montrouge,	0.0%
CBD, Bagneux	Between 0.1 and 1.0%
Saint Ouen, La Défense	Between 1.1% and 2.5%
Saint Denis	Above 2.5%

Source: M&G Real Estate, Q3 2017, PMA.

Suresnes performs favourably on a number of indicators such as current access (c. 10 minutes to Saint Lazare station by public transport), image ('very good' safety and residential quality) and absorption (1.8 years to full occupation). However, this submarket will only benefit from the Grand Paris project from 2025 onwards. Meanwhile, we expect rent levels to remain stable.

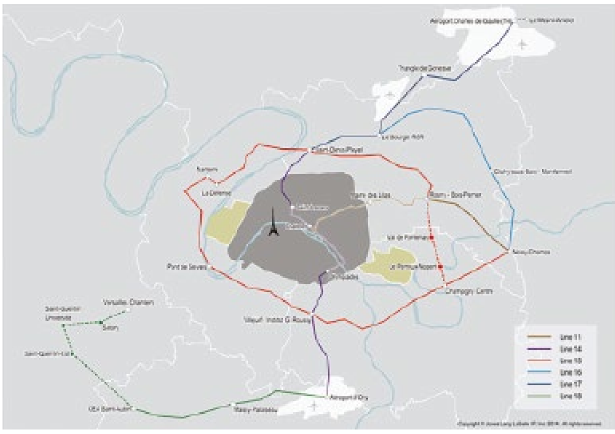
Montrouge will benefit from the Grand Paris project earlier in 2022, but doesn't perform as well in our overall rankings. Of the more established of our study submarkets, Montrouge charges among the highest occupier (€17.26/psm/pa) and developer (€372.58/psm/pa) taxes. It also has a high vacancy rate of 13.1% in 2015 (last available data) and therefore we expect stable rents over the forecast period.

Relative return forecasts

Considering the advanced stage of the Paris CBD in the European office cycle and how low yields there have become, it is perhaps no surprise that we expect all study submarkets to deliver superior returns relative to the CBD over the forecast period, particularly in view of the structural changes.

The rental growth drivers that underpin our total return projections were discussed earlier. The other main driver, yield impact, was also influenced by our location and property performance rankings, providing a forward-looking view of both occupier demand and investor appetite.

Figure 8: 5-year average total return premiums relative to CBD



Band	5-year average total return premium relative to CBD (bps)	
A	Gennevilliers	150 to 249
B	Malakoff	250 to 399
C	Nanterre, Montrouge, Suresnes, La Défense, Bagneux	400 to 499
D	Saint Ouen, Villejuif	500 to 599
E	Saint Denis	600 to 750

Source: JLL, M&G Real Estate, December 2017.

We expect Saint Denis, the leading beneficiary of the Grand Paris project, to deliver returns in excess of the CBD of up to c.750bps per annum. With no new planned metro lines intersecting Gennevilliers and Malakoff, we expect these submarkets to deliver more modest returns of up to c.399bps per annum relative to the CBD.

Considering risk

We then compared our five-year average total returns against the study submarket hurdle rates. In quantitative terms, we defined the hurdle rate as the sum of the submarket risk premium plus the risk-free rate.

Our in-house model uses the risk premiums for all the global markets we forecast. They are derived by reviewing a number of real estate performance risk-related indicators, such as liquidity, rental growth volatility, local occupier covenant strength and planning development constraints. We used the same model to derive the risk premium for all of our study office submarkets using historic data over the 2005-15 period (last available data).

We were able to sense-check our results against risk premiums derived for other European office markets we monitor, particularly the Paris CBD.

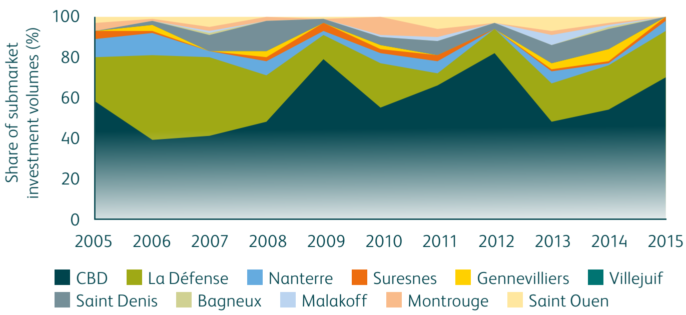
Figure 9: Study office submarkets hurdle rates premiums relative to the CBD

Study submarket	Premium (bps)
La Défense, Saint Ouen	10 to 20
Saint Denis, Montrouge, Nanterre	21 to 30
Suresnes	31 to 40
Malakoff, Villejuif, Bagneux	41 to 50
Gennevilliers	51 to 55

Source: M&G Real Estate, Q3 2017.

The hurdle rates of the more established markets of La Défense and Saint Ouen range between 10 to 20bps above the CBD. These submarkets are less volatile in terms of the indicators tested in our in-house model. On the other hand, the submarkets of Malakoff, Villejuif, Bagneux and Gennevilliers are characterised by nil investment volumes in several of the historic years studied (2005-15) and a modest office stock of below 250,000 sq m. Thus, their hurdle rates lie over 41bps higher than the CBD.

Figure 10: Liquidity (% share)



Source: PMA, CBRE.

Where do we see the best opportunities?

When comparing our five-year average total return forecasts against the hurdle rates relative to the CBD, it is clear that the more established submarkets of Saint Denis and Saint Ouen offer the highest return prospects for the least risk.

Villejuif and Bagneux offer attractive return prospects, but at the expense of some of the highest risk profiles among the study submarkets relative to the CBD. The submarkets of Malakoff and Gennevillers are to benefit relatively less among the study submarkets, offering some of the lowest projected total returns for the highest risk.

Figure 11: Summary premiums relative to CBD

Average 5-year total return relative to CBD (bps)		Hurdle rate relative to CBD (bps)	
Saint Denis	600 to 750	**CBD**	**0**
Villejuif	500 to 599	La Défense	10 to 20
Saint Ouen		Saint Ouen	
Bagneux	400 to 499	Saint Denis	21 to 30
La Défense		Montrouge	
Suresnes		Nanterre	
Montrouge		Suresnes	31 to 40
Nanterre		Malakoff	41 to 50
Malakoff	250 to 399	Villejuif	
Gennevilliers	150 to 249	Bagneux	
CBD	**0**	Gennevilliers	51 to 55

Source: M&G Real Estate, Q3 2017.

The remaining markets of La Défense, Suresnes, Nanterre and Montrouge offer average total returns per annum ranging around 400 to 499bps above the CBD. With the exception of La Défense, this performance comes at a risk to the investor mid-way between the more established markets of Saint Ouen and Saint Denis and the more risky markets of Malakoff, Villejuif, Bagneux and Gennevilliers.

Summary

As select European office markets head towards record low prime yield levels, investors are seeking relative value beyond CBD markets.

We identified the Grand Paris project as a key structural driver of office sector outperformance beyond the CBD. Our bespoke methodology allowed us to identify a range of risk/return profiles relative to the CBD. Within the next five years, Saint Denis and Saint Ouen offer the highest return prospects for the least risk.

As later phases of the project are delivered, the risk profiles reflected in the hurdle rates are likely to reduce further, particularly among the emerging submarkets of Suresnes, Villejuif and Bagneux, all expected to benefit from up to two new metro lines by 2025. We believe that there are plenty of opportunities for investors to access superior risk-adjusted returns, as this research reveals.

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