Routledge
Taylor & Francis Group

The Role and Behaviour of Commercial Property Investors and Developers in French Urban Regeneration: The Experience of the Paris Region

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Summary. This paper provides an analysis of the factors underlying private investment decisions concerning property development, with specific reference to urban regeneration in the French context. It is based on the results of a behavioural survey and MCA analysis of the behaviour patterns and motivations of active private investors and developers in the French commercial property markets and their involvement in French urban regeneration initiatives. The pattern of investment and development activity over the 1997–2002 French property market recovery period has been studied and a typology of actors set up, based on their investment policy for these property markets. The findings indicate that property investors in urban regeneration essentially seek speculative developments and short-term investments.

1. Introduction

This paper analyses the behaviour patterns and motivations of active private investors and developers in the French commercial property markets and their involvement in urban regeneration initiatives. We have studied the pattern of investment and development activity during the Paris region's property market recovery period from 1997 to 2002 and have set up a typology of actors based on their investment policy for these property markets. The original research comprises a comprehensive report funded by the Caisse des Dépôts et Consignations— Direction du Renouvellement Urban (Urban Regeneration Department)—on a survey of private-sector commercial property investors

and private developers and their primary determinants for participating in urban regeneration initiatives in the Paris region.

Urban regeneration in France has been actively encouraged by the French government and the French Ministry of Urban Affairs over the past decade. In 1999, the French government demonstrated its priorities for urban regeneration initiatives by setting up 247 *contrats de ville* (urban development agreements, literally 'city contracts'), concerning more than 1500 neighbourhoods and over 1 million housing units in France. Under this framework, 50 major projects to redevelop deprived urban sites have been created. Like other former industrial or deprived sites, the northern and eastern parts of the Paris region are targets for these

initiatives at a time when the commercial property investment market has become highly active in the Paris region after a long recession, changing in nature and attracting new types of international investors.

Analysis by Adair *et al.* (2003) has shown that institutional funds are reluctant to invest in regeneration areas in spite of the government and public agencies' desire to increase institutional involvement and attract private finance to regeneration. The case of the redevelopment of the Saint Denis plain, presented in this paper, supplies an interesting example of private investment and involvement in an urban regeneration initiative in an inner suburb of Paris. The site has been largely concerned with new property developments in recent years and has successfully turned itself into a new business district for the greater Paris region. Most of the new office buildings have been developed on a speculative basis, bought by large property funds.

The objective of this paper is to examine the determinants of private-sector involvement in commercial property investment and development in general, and specifically in urban regeneration in the context of booming property markets. The study focuses exclusively on office space, shopping centres and business centres. Using a behavioural survey conducted across 34 large commercial property developers and investors in the Paris region, the study uses the multiple correspondence analysis (MCA) technique to examine key factors of property investment and urban regeneration involvement.

The paper is structured as follows. Section 2 reviews the relevant literature and current research examining the issue of urban regeneration, with particular reference to private-sector property investment decisions. The third section presents the context of the survey, paying particular attention to the development of the property investment market in France and the implementation of the urban regeneration project in the Saint Denis plain area, in an inner suburb of Paris. The methodology of the behavioural survey and the MCA analysis is presented in section

4, while the results and the motivations for urban regeneration involvement are presented in section 5. Section 6 contains our conclusions.

2. Property Development Investment and Urban Regeneration: A Review of the Literature

Urban regeneration has been defined as

> the process of reversing economic, social and physical decay in our towns and cities where it has reached that stage when market forces alone will not suffice (Adair *et al.*, 1999, p. 2031).

Over the past two decades, there has been extensive literature examining the issue of urban regeneration, especially in the UK. A substream of this literature, concerning property-led regeneration through the financing of urban regeneration and the levering of private-sector investments, studies what is one of the major urban policy issues to have emerged since the early 1980s. Healey *et al.* (1992) and Berry *et al.* (1993) stress that successful regeneration requires real estate property developments. However, authors always point out that little knowledge is available of the nature of private-sector investment and the strategy employed in the urban regeneration initiatives (Adair *et al.*, 2003). General property investment principles, on the other hand, with analyses of the motivations underlying private-sector investment in general, have been widely presented and studied in recent decades in both academic real estate finance journals and many textbooks. The links between these two main issues—urban regeneration and real estate investment principles—merit further attention in urban studies.

2.1 Property Investment Patterns

Economic literature concerning property investment patterns has been abundant in the US and the UK, particularly as property markets in these countries have expanded and become global in recent years.

Much of the research on commercial property has tended to focus on real estate as an investment asset and has thus been concerned with rent and capital value determination, market performance and the role of property in a mixed asset portfolio (Lizieri, 2003, p. 1151).

It is usually emphasised that real estate as an asset offers the potential for relatively high rates of return on invested capital, aided considerably by financial leverage, and provides both value appreciation and protection against inflation. But it also comes with a degree of risk, due mainly to illiquidity, including the possibilities of loss of income or capital (Floyd and Allen, 1994; Brown and Matysiak, 2000; Jaffe and Sirmans, 1986). Many techniques have been developed over the years in this literature for analysing real estate investment projects in a decision-making framework. Most of these techniques emphasise that leverage and risk remain important factors in property investment; the key criteria in decision-making are risk, expected return and diversification benefits. The internal rate of return (IRR) is one of the most common indicators used to evaluate the performance of an investment. It is defined as the discount rate that makes the net present value of the expected income equal to zero. Therefore, the IRR measures the yield of the investment, calculated based on the period of property investment. The IRR is then compared with the investor's required rate of return and, if the IRR exceeds this required rate of return, the decision is to invest. Compared with more traditional appraisal methods used to evaluate investment projects, such as the traditional return on investment criteria, which is expressed as the average annual profit as a percentage of the average annual investment, this indicator uses all the cash flows in a project and takes account of the time value of money (see more details in Brown and Matysiak, 2000).

As property investment is opportunity-driven, it needs to offer returns reflecting the risk-level and risk-reward profiles of investments. Because physical property investments are illiquid and there is a great degree of uncertainty about the various property market cycles, the target rate of return required to undertake a property investment should include a premium for bearing risk. Greater uncertainty translates into a higher-risk premium, reflecting the psychological preference for safe investment decision-making. Urban regeneration involvement is thus particularly interesting in this respect. As the process is typically very long-term and involves large amounts of money, the risks are usually large. Developers and investors thus need an appropriate return rate to compensate for the risks and the immobilisation of their capital. They will put money into the project because they believe the property will ultimately yield substantial cash flows and capital appreciation.

These returns can be enhanced by taking advantage of market cycles while at the same time diversifying risk. Generally, the most secure investments place the emphasis on current income production—i.e. cash flows, from blue-chip tenants. Speculative investments, in contrast, are usually entered into without any tenants and the emphasis is on the appreciation potential of future developments. In this case, expected property appreciation and capital structure are determinants for investment: the greater the proportion of debt, the higher the equity appreciation investors can anticipate. As underlined in most property investment textbooks, the real estate industry frequently uses the terms 'positive leverage' and 'negative leverage' to describe the effects of debt on cash returns. Positive leverage simply means that property cash flows are greater than the interest rate paid on debt. This leverage is essential because it increases current equity return and makes property investment very attractive (Linneman, 2004).

This factor is an important driver for new property developments. As we see from our survey and in the Saint Denis plain example presented below, the Paris region commercial property market has been a good example of positive leverage, with low interest rates and

substantial capital appreciation during the 1997–2002 period.

2.2 Property Development and Urban Regeneration

Over the past two decades, property-led urban regeneration has been a popular topic of research in urban studies, notably in the UK. Fuelled by Britain's property-led development initiatives in its urban regeneration policy of the mid 1980s, much of the literature focuses on public/private sector partnership, stressing the importance of private-sector involvement in urban regeneration. Jones (1996), for example, has analysed the nature of the property-development decision-making process and has commented on the attraction of private capital in urban regeneration initiatives and the logic of public-sector financial contribution to this process. As development profits are highly geared to the level of final market values and hence to the property-market cycle, he suggests that grant-aid programmes to developers are effective at the beginning of an upturn in the property cycle, but that they are unlikely to be successful regeneration vehicles in a recession. He points out that the possibility of supernormal profits depends on the macro-property-market cycle. This is a particularly important conclusion.

More recently, some British literature has examined the issue of urban regeneration with research focusing on private-sector decisions. Much of this literature has concentrated on institutional investors' motives for holding regeneration investments. The most extensive work on this issue is by Adair et al. (1998, 1999, 2003) and McGreal et al. (2000) who have studied the role of private-sector investment, and the perception and handling of risk in urban regeneration, through investor surveys with a sample size of around 100 respondents in the UK.

In an examination of decision-making criteria and investors' motivations for holding property investment portfolios, Adair et al. (1999) stress that the investment decision is dominated by considerations relating to

perceived return, the security of investments and the spreading of risk. The conclusions of their research show that perceived total return is the primary incentive for holding a current portfolio of urban regeneration investments. Urban regeneration investors seemingly take a long-term perspective in their anticipation of future capital appreciation. Another recent study, by McGreal et al. (2000), points out that companies retain their investments in urban regeneration locations in expectation of accumulating above-average returns. Other factors, such as new business opportunities and exit strategies, are perceived as significant in urban regeneration investment motives. Rental growth arising from occupier demand and capital appreciation reflecting investor demand are the primary criteria for evaluating new regeneration projects, according to McGreal et al. Similarly, lack of or low capital appreciation due to weak investor demand is a strong disincentive to investing in urban regeneration. According to these authors, the factors perceived as improving the flow of private-sector finance into urban regeneration are dominated by non-finance-based instruments, such as the flexibility and the clarity of the procedures, land contamination remediation or a guaranteed minimum of infrastructure.

More recently, Adair et al. (2003) have benchmarked the investment performance of regeneration property. They note that, over the long-term perspective, returns for regeneration property can outperform national and local benchmarks and that regeneration areas offer significant investment opportunities and a high return on investment. Of the different types of properties, they find that retail property performs extremely well within regeneration areas, which appear to be particularly suited to shopping centres and retail warehousing investments.

In France, in contrast, there has been relatively little analysis of private-sector decisions to invest in urban regeneration. The major reform of the French town planning system at the end of 2000 introduced by the Loi relative à la solidarité et au renouvellement urbains (Law on solidarity and urban

renewal, known as the Loi SRU), which principally concerns housing policy and urban regeneration (Booth, 2003), has promoted research on the topic. For instance, a programme funded by the Caisse des Dépôts et Consignations (CDC) in 2001 has stimulated academic research into the economic aspects of urban regeneration policy, particularly private-sector investor participation and motivation in urban regeneration initiatives (*Revue Urbanisme*, 2002).

An initial piece of research by Trache and Green (2001), funded by this CDC programme, focused on the rationale for private-sector investors' involvement in urban regeneration projects in six European cities: Manchester, Birmingham, Brussels, Lille, Valenciennes and Rotterdam. Once again, this analysis shows that the primary motivation for private-sector investors participating in these initiatives lies in the achievability of high returns. Non-finance-based instruments and clarity in public policy and processes are therefore fundamental and are of similar, if not greater, significance to the investor as financial incentives. The authors underline that three factors are fundamental to private investor involvement: availability of information, capital constraints and market trends. However, it is unlikely that all three conditions will be met in urban regeneration areas. Banks can be reluctant to lend to investors because of the lack of existing investment in the area. The comparison between the six European city case studies shows that there is a clear difference in behaviour between investors of different sizes and the scale and extent of their operations. Unlike large institutional or international investors, smaller local investors have the advantage of intimate knowledge of the local market and regular contact with both local authorities and local clients, which can be an important factor in pioneer investment. This contrasts with the position of institutional investors, which may cater for, rather than react to, market demand.

As part of the French research programme funded by the CDC, we set out to test hypotheses previously put forward by Adair *et al.* and McGreal *et al.* regarding the involvement of private-sector investors in urban regeneration projects and the importance of the anticipated rate of return as the primary determinant in the investment decision. This paper presents the main results of our study. The original research comprises a comprehensive examination of the pattern of both investment and development activity during the French commercial property market recovery of 1997–2002 and urban regeneration initiatives in the Paris region. The emergence of such initiatives in the Paris region can be explained with reference to the general context for property investment, which considers the investment decision as largely determined by perceived total returns. In this paper, we revisit these issues in the context of a French case, that of the Paris region, relating to commercial property markets. Our survey introduces new considerations regarding the commercial risk (speculative or pre-let buildings), the investment time-horizon (short-term or long-term), the level of expected IRR (rather than the return on investment, as is usually the case in the literature) and the timing of the investor's participation in the property cycle (during a downturn or at any other moment in the cycle). In contrast to Trache and Green, we focus exclusively on large investors and developers, without including local actors. Using the example of urban regeneration in the Saint Denis plain through the development of its new business district, we consider the drivers for property investment by private-sector institutional and international investors in an urban regeneration project.

3. Background: Urban Regeneration Initiatives and Commercial Property Development in the Paris Region

Some background knowledge of how the French commercial property market works is essential in order to understand why the private sector invests in certain redevelopment areas like the Saint Denis plain urban regeneration area. Before considering the main results of the survey, we shall thus examine the state of the commercial property

market that was the setting for this study, particularly the changing nature of the Paris region investment property market over the past decade. Then, taking new developments and urban regeneration practices in the Saint Denis plain as an example, we outline the role of large investors, mostly short-term foreign investors, in the process. The traditionally industrial Saint Denis area has been gradually transformed over the past decade to become one of Paris' largest mixed-use regeneration areas today. Profiles of actors in the French commercial property market development emerge from our analyses.

3.1   Investment Activity in the Paris Region

The Paris region office market experienced an unprecedented overproduction crisis and real estate recession during the 1991–96 period (see Nappi-Choulet, 1997, 1998, for more details). This recession was mainly caused by deregulation of the approvals (agrément) procedure and also by the banking system, which used to finance speculative building projects in the late 1980s without demanding any collateral. This office-sector crisis resulted in a significant fall in rental values and capital values, which dropped by

two-thirds between 1990 and 1995, leading to ruin for both operators and their financial backers. The first investors subsequently to be interested in the French market were North American hedge funds. Skilled in investing against the business cycle, they bought up massive quantities of portfolios which had been owned by bankrupt companies and were on the market at bargain prices. These funds benefited from this strategy and made large capital gains from 1995 to 1999, although high levels of demand caused a 40–50 per cent surge in the rental values of 'prime' offices.

Since then, although the commercial property markets recovered from the slump of the mid 1990s, international investors have developed a considerable interest in French commercial property markets (see Figure 1). The property investment market in the Paris region has seen a spectacular reversal of its downward trend, influenced by several factors simultaneously (DTZ France, 2004), including in particular the reduction of registration duties on property sales and low interest rates. Also, the opportunities offered by new developments meeting international standards on large regeneration sites such as the Saint Denis plain (in the inner northern suburbs of Paris) and the Paris Rive Gauche
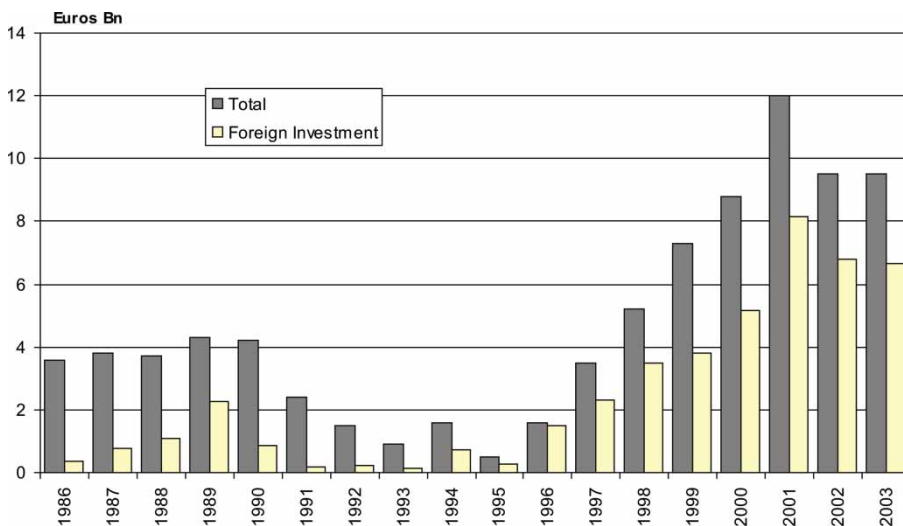

Figure 1. Commercial property investment in France in nominal terms. *Source*: Immostat.

area (inside central Paris) and disposals by companies and state-owned corporations, have made it possible for all types of investors to invest massively in the office sector.

The exceptional level of activity in the Paris investment market occurred under the influence of foreign investors in the market, who are today's main actors in the development process (Figures 1 and 2). Because such a significant portion of French commercial property is controlled by non-French investors, their investment decisions currently have important implications for urban regeneration in France. The investment market structure is also an important factor. For example, until the mid 1980s, investment for ownership of the completed development usually came from French insurance companies and listed property companies dealing in commercial development on a long-term time-horizon (generally more than 15 years). Since the market's recovery, developers have done deals with foreign investors which hold property and analyse property performance on a shorter time-horizon (in many cases, less than five years). These 'short-term' actors, mostly pension funds and non-listed vehicles, have emerged as a dominant force in French commercial property markets. Known as

opportunity funds, they typically have a very short life-span, apply a high-risk and high-return strategy and target distressed, underperforming assets or poorly managed properties, with leverage of around 75 per cent or more (INREV, 2004).

As can be seen from Figure 2, during the period 1997–2001, the greatest foreign demand on the French investment property market came from North American and German investors. While the former, mostly 'short-term' investors, invested in the Paris region property market in 1996 and 1997, the latter's involvement has grown constantly since 2000. Most German investors follow a conservative, medium- or long-term investment horizon strategy, concentrating on newly let, good-quality assets in prime markets. However, they began to invest in fully let office space outside the Paris CBD (central business district) in early 2000 in new emerging markets.

Unlike German investors, North American managed and pioneer opportunity funds look for value-added opportunities and occupier-driven transactions. They have invested mostly in peripheral markets and inner suburbs in speculative developments and investments. Among these areas of
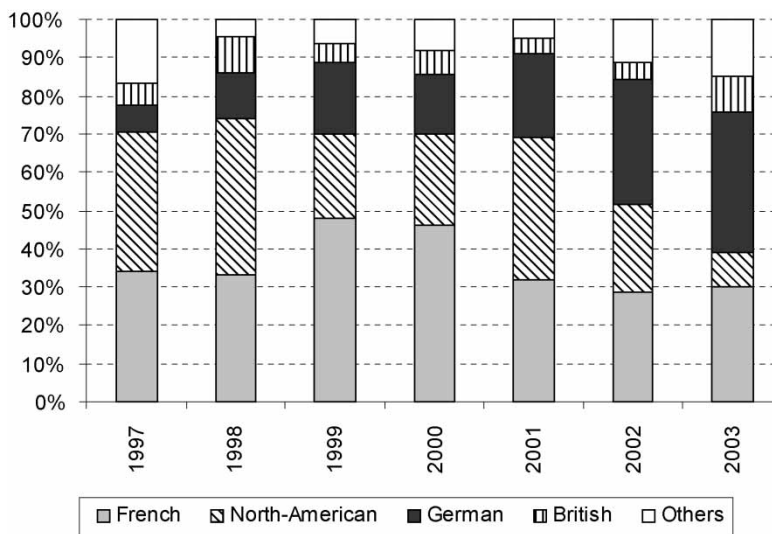

Figure 2. Breakdown of the French commercial property investment market by nationality of investors. *Source*: CB Richard Ellis Bourdais.

predilection, the Saint Denis plain has been the most important emerging district and urban regeneration initiative in the Paris region during the past decade. We now turn from the structural evolution of France's commercial property investment market to the specific example of the Saint Denis plain, to explore how new commercial developments have occurred within the scope of such an urban regeneration initiative.

3.2 Emerging Districts and Urban Regeneration Initiatives: The Saint Denis Plain

Urban regeneration in France is quite a recent phenomenon, essentially encouraged by the French government and the French Ministry of Urban Affairs since 1994. The implementation of urban policy was first achieved through *contrats de ville*—urban development agreements—which were designed to create a global approach to the issue. In 1999, the French government laid out its priorities for urban policy, focusing its action on four themes: crime prevention, employment, economic development and urban regeneration (DIV, 2000). In 2000, 247 *contrats de ville* involving more than 1500 neighbourhoods and over 1 million housing units in France were concluded for a seven-year period. These urban development agreements, signed between the state and local partners, such as regional/local authorities or social housing organisations, implement institutional partnerships within the framework of an agreed urban and social project.

In 1999, the French government introduced a new initiative designed to extend the sphere of the *contrats de ville* to include entire urban areas in *grands projets de ville* (literally, 'major city projects'). This brought about the creation of 50 large development projects for deprived urban sites in France covered by the *contrats de ville*. Around 20 of these 50 *grands projets de ville* are located in the Paris region and concern former industrial areas or social housing estates that are the heritage of extensive post-war urbanisation. Most of them are located in the northern and

eastern part of the region. The nature of the partnerships and relationships between organisations, and the process of redevelopment in urban renewal in Paris—based on the Bercy site case—have been extensively described and compared with London's Surrey docks site by Nelson (2001). In both case studies, major public–private partnerships were set up for the development of new business districts, both initiated by the private sector as largely speculative projects. According to Nelson, the goals of these partnerships were clearly primarily economic, with any social benefits being secondary. The public sector underwrote the development risk involved in the major public–private partnership in both cases, with a new metro line in the Bercy case and investment in the transport infrastructure as well as tax relief measures in the Canary Wharf case.

The case of the Saint Denis plain renewal is a good illustration of how private property developers and investors have been involved recently in one of the largest mixed-use regeneration areas in Paris. The site, located on the north edge of central Paris, is included in the *grand projet de ville* for the Plaine Commune conurbation located in the inner northern suburbs of Paris, formerly the site of industrial factories, warehouses and social housing estates. Created in 1999, the Plaine Commune conurbation comprises seven towns, including the town of Saint Denis (see Figure 3). The creation of this new *grand projet de ville* has given new impetus and greater consistency to the development of the area in the Paris region over the past few years. The area is home to 273 000 inhabitants and covers 35 square km. The Plaine Commune conurbation committee works on the urban development project laid down in the framework of the global development policy. The approach is based on developing a dynamic urban mix forming a centre of growth to the north of Paris, on the strategic Paris/Roissy Charles-de-Gaulle airport axis. The plan is to double the number of inhabitants and the number of employees in the next 20 years and to transform the area into a major development centre. The decision to
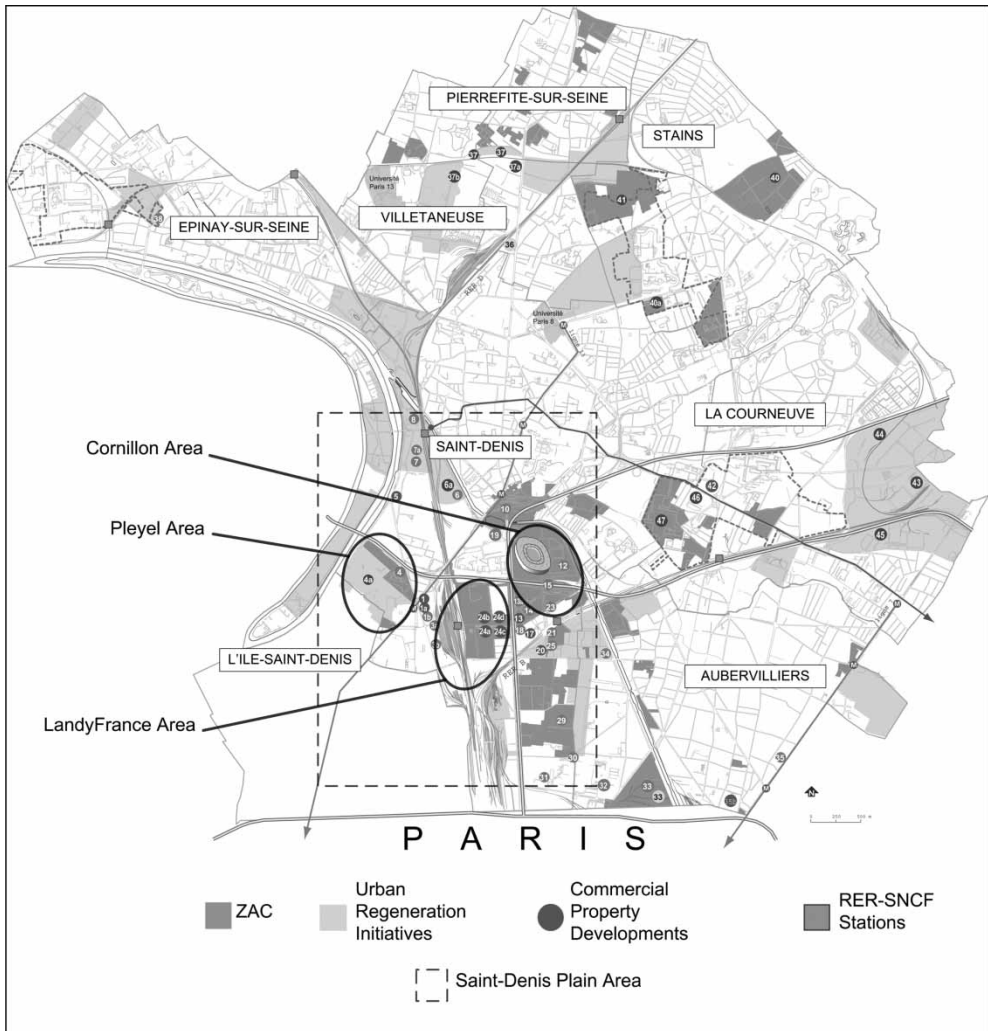
Figure 3. The Saint Denis plain in the *grand projet de ville* of Plaine Commune in the northern part of the Paris region. *Source*: Plaine Commune.

build the Stade de France international stadium and the state's infrastructure commitments made at the time helped to accelerate the revitalisation process of the area.

The Saint Denis plain area is part of the Plaine Commune *grand projet de ville* and constitutes one of the new urban regeneration initiatives located in the town of Saint Denis, around the new Stade de France stadium (see Figure 3). Formerly the industrial heartland of the Paris region and indeed of France between 1850 and 1950 (with the Pleyel piano factory, EDF electricity plants, the

Christofle silversmith factory, etc.), the site suffered serious economic decline in the post-war years. Because of its huge land reserves (600 ha), mainly land vacated by the French railway system and defunct factories, the Saint Denis plain has benefited from many infrastructure projects and has received significant public investment over the past decade, totalling over Euro 1 billion (for example, the Stade de France stadium in 1993 which housed the football World Cup in 1998, roofing of the A1 motorway and extension of the Paris RER rapid-transit rail

system line in 1998, decontamination of land and the water-table) as part of the Plaine Commune *project*.

During the property boom of the late 1980s, the local office market, which was small-sized, was only concentrated in the Pleyel area developed in the late 1970s on the western side of the Saint Denis plain. At the time, most institutional funds were reluctant to invest in this unfashionable northern area of the Paris region and the main property boom was concentrated in the traditional business districts of Paris, located in central Paris and its immediately adjoining western suburbs (see Figure 4). The Saint Denis plain thus suffered from an enduring negative image, with connotations of industrial zones and underprivileged urban areas.

Over the past decade, with the Plaine Commune urban regeneration initiative, two new service-sector areas have been created in the middle of the Saint Denis plain, through the French ZAC (mixed development zone) procedure: the LandyFrance (27 ha) and Cornillon (13 ha) zones (see Figure 3). Over

265 000 square metres of office space were built in these old brownfield areas in three years during the 2000–03 period, transforming the former industrial site into a new Paris business district. The LandyFrance zone alone covers a total of 177 000 square metres divided into 6 blocks of between 12 000 and 39 000 square metres, making it the biggest building project in the Saint Denis plain and even in the whole Paris region. Opposite the Stade de France building, which started the renewal of the area, this former contaminated industrial zone extends over an area of 27 hectares and offers 5000 square metres of retail space and a programme of 450 homes.

For the first time, at the end of the 1990s, the Saint Denis plain came to be seen as a good investment opportunity by pioneer investors who launched the market—notably, what the French call 'Anglo-Saxon' investors such as LaSalle Investments, Awon, Whitehall or Orion Capital Managers. In 2002–03, over Euro 1 billion was invested by private-sector investors in new office buildings in
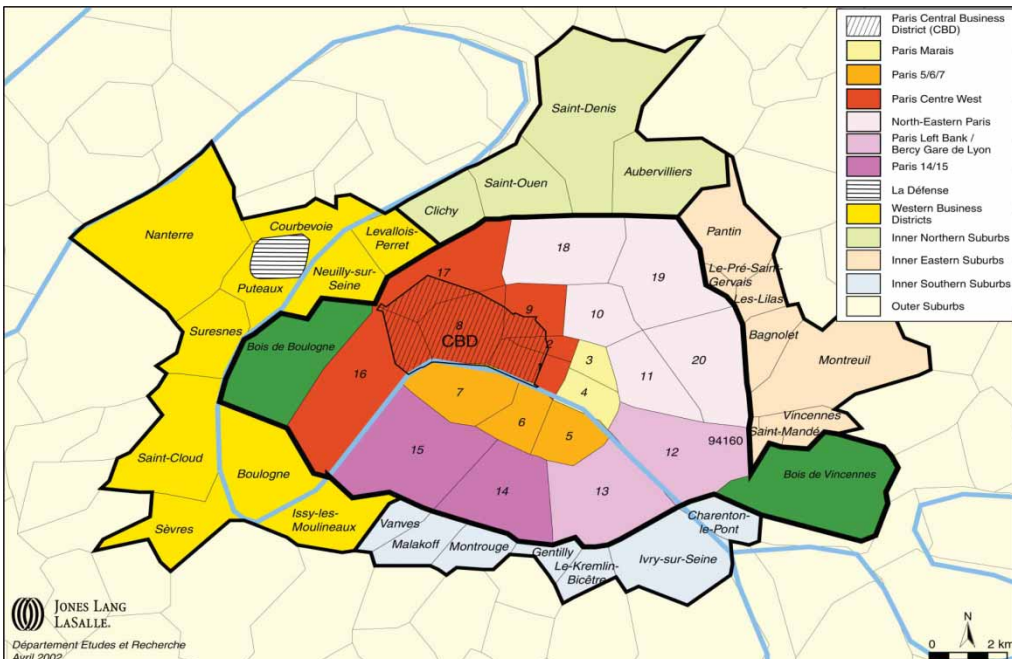

Figure 4. Location of the main office districts in the inner suburbs of Paris. *Source*: Jones Lang LaSalle–Immostat.

the Saint Denis plain (including the Pleyel, LandyFrance and Cornillon zones).

The case of this new business development in Saint Denis is interesting for three reasons. First, the involvement and concentration of foreign investors is considerable, reaching a level never seen before in the Paris region office investment market. In the LandyFrance zone alone, for instance, almost all the first office developments were managed by foreign investors. Secondly, as we can see from Table 1, almost all new large office buildings bought in the area were developed on a speculative basis between 1999 and 2003, without pre-defined users, although this type of development had been avoided by all developers and investors in the main traditional Paris business districts since the previous property recession of the mid 1990s and its high vacancy rates. Thirdly, the last distinguishing feature of this urban regeneration initiative is that the commercial property market was launched by short-term investors looking for new assets against a downturn in the property cycle. Most of the pioneer investors who launched the Saint Denis plain market considered their investment life-cycle on a short-term basis (between two and five years). The most interesting example is the American investor Awon, which single-handedly bought around one-third of the total office space developed in the area (3 buildings totalling 68 000 square metres), and resold the assets one year later, in the middle of the property cycle.

Within a few years, the various Saint Denis areas have thus come to make up one of the most buoyant service districts as far as large office buildings are concerned (more than 5000 square metres). The building of top-quality programmes in the Saint Denis plain area, comparable in technical and functional terms with the greatest tower blocks in the La Défense business district on the west edge of Paris, at rents that remain lower than traditional business district rents, has made it possible to attract 'secondary offices' as well as some head offices. Because of a lack of such buildings in the traditional business district and strong demand from users, most

of the buildings developed on a speculative basis (without known tenants at the start of the development), were quite quickly let to users such as Siemens or AGF (see Table 1). By 2001, at the peak of the cycle, the Saint Denis area accounted for 43 per cent of the overall volume of transactions in the Paris region for surface areas of over 5000 square metres. More recently, new actors investing on a long-term time-horizon basis have appeared in the Saint Denis plain, notably German investors such as Difa. These 'long-term' investors, who prefer a 'patrimonial approach', have taken the place of pioneer investors who had invested in the market during the downturn and middle of the cycle. Formerly the Ile-de-France region's industrial heartland, the Saint Denis plain is now at the centre of north-east Paris' new service district.

4. Methodology and Profile of Companies Surveyed

The aim of our study is to understand the drivers of commercial property investment and development in the Paris region in general and particularly in urban regeneration areas. This paper thus revisits the issue examined by Adair *et al.* (1998, 1999) and McGreal (2003), considering the case of France, with special reference to the example of the Saint Denis plain. We used a behavioural survey based on a questionnaire administered in April and May 2003 to large property developers and investors who had actively participated in the Paris region commercial property sector during the French property market recovery of 1997–2002. This survey was undertaken by means of direct interviews with a senior executive. The main objective was to find out how urban regeneration projects and locations are perceived by such large private-sector investors and developers and to identify what can be done to improve their participation in these projects. The questionnaire responses provided general information about the behaviour and strategy of investors and property developers during the recovery period, their perception of risk and

Table 1. List of the office buildings developed in the Saint Denis plain, 2004

Office building	Year	Area	Investor	User	Commercialisation
Cap Pleyel	1999	Pleyel	AIG	EDF	Speculative building
Siège Afnor	1999	Cornillon	Afnor	Afnor	Turn-key
Vedior Bis	1999	Cornillon	Difa	Vedior Bis	Turn-key
Grand Angle	2001	Pleyel	Deka	Siemens	Speculative then pre-let buildings
Paris Stade	2001	Other	Awon/DGE	AGF	Speculative then pre-let building
Le Cap	2001	Cornillon	Wereldhave	Canal Plus	Speculative then pre-let building
Le Mondial	2002	Cornillon	La Salle	CIC/SNCF/ Plaine Commune	Speculative then pre-let building
Axialis	2002	Cornillon	Difa	Dir. Gén. Impôts	Speculative building
Etoile Pleyel	2003	Pleyel	Fructiger	AFSSAPS	Speculative then pre-let building
Perspective Seine	2003	Other	Orion	Nextira One	Speculative building
Cap Lendit	2003	Landy	Axa	No user	Speculative building
Carré Pleyel 1	2003	Pleyel	Morgan Stanley	No user	Speculative building
Eurostade Est	2003	Landy	Difa	No user	Speculative building
Eurostade Ouest	2003	Landy	ING	SNCF	Speculative building
Innovatis 1	2003	Landy	Generali	Generali	Speculative building
Innovatis 2	2003	Landy	Sophia	No user	Speculative building
Belvédère	2004	Cornillon	Predica	No user	Speculative building
Le Jade	<2003	Landy	Awon	No user	Speculative building
Le Stadium	<2003	Cornillon	GCI/Whitehall	ABN Amro/Beko	Speculative building
Le Triangle	<2003	Cornillon	Sogecap	No user	Speculative building
Le Wilo	<2003	Landy	Awon/Generali	Generali[a]	Speculative building
Les Borromées 1	<2003	Other	Sogelym Steiner	Ministère de l'Intérieur	Pre-let building
ANAES	<2003	Cornillon	CNP	ANAES	Turn-key

[a]The sale of the building by Generali is in progress.
Source: author.

their attitudes towards urban regeneration and public assistance. In this study, we seek to explore commercial real estate investment strategies and to test hypotheses advanced by previous literature concerning the main determinants of private-sector decisions to invest in and develop urban regeneration projects, particularly commercial property projects (shopping centres and offices). The results of the survey are presented in the next section.

Sampling procedures were applied to ensure representation of the various investor and developer groups which actively participate in commercial property markets, particularly in office buildings, shopping centres or warehouses. All these participants were actively involved in the Paris region property markets during the 1997–2002 period and some had participated in urban regeneration projects. The sample was initially compiled from a very recent property database in France, only available since 2001: *Les investisseurs en 2001 et 2002*, published by the French professional property newsletter *La lettre m²*. This database lists all the annual investment figures for commercial property markets in France generally and the Paris region since 2001. Most of the data are available for the Paris region. A total of 45 French and international companies were listed which had invested more than Euro 20 million per year in 2001 and 2002 in the Paris region. From this population, a total of 34 responses were received. This is a response rate of 76 per cent, which is very satisfactory.

The survey questionnaire, comprising 27 questions, is divided into three parts. The first part seeks background information about the company. Questions in this part also inquire about property investors' and developers' practices during the period 1997–2002, which saw the recovery of the French and Paris region commercial property market. It explores the financial and strategic motives behind development, but also the main investment portfolio policy and motivations of the respondents during this period, independently of urban regeneration projects. The second and last parts of the survey deal

specifically with urban regeneration. Part 2 contains an opinion poll about urban regeneration projects and the role of public policy and incentives in private investor-developer participation in these projects. The last part focuses on the motivations, determinants and intentions of the sample companies that take part in urban regeneration initiatives. In this part, participants who have already been involved in urban renewal projects are separated from those who have not.

Table 2 provides some details about the companies surveyed. A fundamental consideration of the research was to ensure representation of the various types of commercial property actors. Two groups were selected: property developers that act as intermediaries, carrying out development on behalf of an investor or owner-occupier, in some cases bearing the risk and operating on limited equity, and property investment companies which own the properties directly. The first group—property developers—represents 47 per cent of the sample (16 entities in total). These developers mainly specialise in shopping centres and office developments. The second group, property investors, represents 53 per cent (18 entities in total) of the sample distributed between 10 quoted property companies (30 per cent of the sample) and 8 institutional investors—i.e. insurance companies, pension funds or property asset managers (24 per cent). Half of these investors are French and half foreign. During the 1997–2002 period, the Paris region was the major location for 74 per cent of companies included in the survey; 30 per cent of those companies had invested in the Paris central business district.

Regarding the sample companies' involvement in urban regeneration, 68 per cent (23 companies in total) had already been involved in urban regeneration initiatives in France. Of those 23, 48 per cent are developers, 30 per cent institutional investors and 22 per cent quoted property companies. In particular, 26 per cent (8 in total) had invested in urban regeneration projects outside France and 41 per cent (14 in total) had been involved in the Saint Denis plain project. Approximately

Table 2. Bivariate analysis

	Involvement in urban regeneration	Non-involvement in urban regeneration	Total	Involvement in St Denis area	Non-involvement in St Denis area	Total
Type of actors						
Institutional investors	7	1	8	5	3	8
Developers	11	5	16	7	9	16
Property companies	5	5	10	2	8	10
Total	23	11	34	14	20	34
Average investment holding period						
Less than 5 years	10	6	16	7	9	16
More than 5 years	13	5	18	7	11	18
Total	23	11	34	14	20	34
Type of participation						
Speculative development	13	2	15	8	7	15
Pre-let development	8	8	16	5	11	16
Total	21	10	34	13	18	31
Financing of operations						
Mostly debt financing	13	8	21	7	14	21
Mostly equity financing	10	3	13	7	6	13
Total	23	11	34	14	20	34
Share of equity						
Less than 20 per cent	7	3	10	7	3	10
More than 20 per cent	16	8	24	7	17	24
Total	23	11	34	14	20	34
Moment of participation in the property cycle						
Downturn in the cycle	8	5	13	4	9	13
Middle of the cycle	3	1	4	3	1	4
Any stage	12	5	17	7	10	17
Total	23	11	34	14	20	34
Expected IRR						
Less than 15 per cent	11	6	17	7	10	17

(*Table continued*)

Table 2. Continued

	Involvement in urban regeneration	Non-involvement in urban regeneration	Total	Involvement in St Denis area	Non-involvement in St Denis area	Total
More than 15 per cent	12	5	17	7	10	17
Total	23	17	34	14	20	34
Motivation for participation, 1997–2002						
Land reserves	8	2	10	4	6	10
Return on investment	9	5	14	6	8	14
Asset location	6	4	10	4	6	10
Total	23	11	34	14	20	34
Efficient public aids in urban regeneration initiatives						
Grant-based instruments	1	3	4	1	3	4
Non-grant-based instruments	20	8	28	13	15	28
Total	21	11	32	14	18	32
Indirect public aids in urban regeneration initiatives						
Public infrastructure and neighbouring environment quality	10	5	15	10	5	15
Land availability and costs	10	3	13	3	10	13
Total	20	8	28	13	15	28
Opinion about urban regeneration initiatives						
Future development potential zones	12	6	18	8	10	18
Risky zones	11	5	16	6	10	16
Total	23	11	34	14	20	34
Risk associated with urban regeneration projects						
Rental risk	14	6	20	9	11	20
Risk of resale	2	3	5	2	3	5
Administrative risk	5	1	6	2	4	6
Total	21	10	31	13	18	31

one-third of the total sample consider such urban regeneration projects as highly risky projects and 54 per cent see them as having future development potential.

Because of the qualitative nature of the survey variables, a multiple correspondence analysis (MCA) approach was undertaken to draw up a typology of participants in commercial property markets during the 1997–2002 period. This inductive approach is a generalisation of correspondence analysis for categorical variables; the goal of the method is to achieve a global view of the data that will be useful for interpretation. It makes it possible to map and describe the associations between several categorical variables and attributes of the survey sample and thus identify stable patterns in the data. The theory of correspondence analysis is explained in detail in several publications (for example, Benzécri, 1973; Greenacre, 1984, 1993) and is often used in marketing literature. This descriptive statistical technique, while particularly useful for analysing large numbers of observations, is nevertheless well-suited to smaller-sized samples, provided that the number of active variables included in the analysis does not exceed the number of individuals in the sample.

Eigenvalues are vitally important in interpretation of the axes. These eigenvalues are used to assess the general form of the cloud and indicate which axes matter. They are used to determine the amount of explained variance. The first four eigenvalues of the analysis are respectively 0.325, 0.259, 0.251 and 0.180. However, these proportions often provide a pessimistic indication of fit and are uninterpretable. We therefore used the inertia adjustment proposed by Benzécri (1979), which produces a better indication of which axes matter and should be used for the analysis. This adjustment does not affect the contributions, which are still calculated in relation to the original eigenvalues. The adjusted eigenvalues are respectively 0.058, 0.028, 0.025 and 0.006. The corrected percentages of inertia for the first four dimensions are respectively 48.1 per cent, 22.9 per cent,

20.4 per cent and 5.0 per cent (see Table 3). They give an accurate expression of the relative importance of the factors. Axis 1 represents 48 per cent of the total inertia of the cloud. Axis 2 accounts for 23 per cent of the explained variance and the third axis represents 20 per cent of the inertia. The cumulated inertia of those 3 factors is thus 91.4 per cent; therefore, we decided to keep only the first 3 axes for our analysis. The ACM analysis was performed on 9 relevant variables as listed in Table 3. To interpret the results, we included and plotted supplementary points that were not used in the original analysis. These data concern, for example, participation or non-participation in urban regeneration and in the Saint Denis plain urban renewal.

Because of the qualitative aspect of the variables and the small size of the survey sample, non-parametric tests were used to analyse private-sector involvement in urban regeneration projects: the chi-squared test and the exact Fisher test. We tested relationships between dichotomic variables such as *Urban regeneration involvement (*and *Saint Denis plain property involvement)* or *opinion about urban regeneration projects* and the strategy employed or the perception of risk during the property market recovery period. Tables 4 and 5 present the results of these independent tests.

5. Results and Discussion of the Empirical Findings

5.1 Towards a Typology of Property Participants in the Paris Region Commercial Property Market

To interpret an MCA, the absolute contributions and squared correlations are calculated for each axis (Greenacre, 1984). Table 3 presents the basic numerical results of the MCA analysis for the first three dimensions (i.e. factors). The contributions are coefficients of determination giving the explained variance of each variable by each dimension or factor. Figures 5 and 6 show the MCA maps created by combining the

Table 3. Eigenvalues, contributions and squared correlations for multiple correspondence analysis

	Dimension					
	1		2		3	
Eigenvalue	0.325		0.259		0.251	
Percentage of inertia	16.3		13.0		12.5	
Adjusted eigenvalue	0.058		0.028		0.025	
Corrected percentage of inertia	48.1		22.9		20.4	
	Contributions	Cosine^2	Contributions	Cosine^2	Contributions	Cosine^2
Investment	*0.0918*		*0.2593*		*0.1049*	
Less than 50 million €	0.0064	0.0296	0.1384	0.5097	0.0001	0.0004
50 to 100 million €	0.0004	0.0014	0.0002	0.0007	0.0392	0.1153
More than 100 million €	0.0248	0.0909	0.0456	0.1329	0.0630	0.1775
Do not know	0.0602	0.2206	0.0750	0.2187	0.0026	0.0074
Zone	*0.1449*		*0.0893*		*0.1744*	
Paris business district	0.0961	0.4223	0.0543	0.1898	0.0018	0.0062
Paris region	0.0285	0.1563	0.0079	0.0348	0.0636	0.2691
Province	0.0203	0.0744	0.0271	0.0789	0.1090	0.3072
Motivations for implantation	*0.1834*		*0.2887*		*0.0073*	
Return on investment	0.0886	0.4580	0.0289	0.1189	0.0041	0.0165
Land availability	0.0914	0.3826	0.0512	0.1706	0.0019	0.0060
Asset location	0.0034	0.0138	0.2086	0.6633	0.0013	0.0040
Investment holding period	*0.1969*		*0.0000*		*0.0001*	
Less than 5 years	0.0984	0.5768	0.0000	0.0000	0.0000	0.0001
More than 5 years	0.0984	0.5768	0.0000	0.0000	0.0000	0.0001
Moment in the property cycle	*0.0233*		*0.1407*		*0.1151*	
Downturn	0.0023	0.0105	0.0797	0.2934	0.0176	0.0626
Middle	0.0117	0.0396	0.0001	0.0002	0.0954	0.2483
Any	0.0094	0.0548	0.0609	0.2839	0.0021	0.0095
Quality of assets	*0.1390*		*0.1280*		*0.1853*	
Old	0.0001	0.0003	0.0764	0.2324	0.1016	0.2988
Renovated	0.1161	0.3924	0.0469	0.1261	0.0184	0.0479
New	0.0228	0.1823	0.0047	0.0298	0.0654	0.4021
Type of participation	*0.0721*		*0.0458*		*0.0983*	
Speculative	0.0271	0.1403	0.0062	0.0257	0.0294	0.1171
Pre-let	0.0356	0.2085	0.0000	0.0000	0.0461	0.2081
Do not know	0.0093	0.0293	0.0396	0.0989	0.0228	0.0550
Financing of operations	*0.0007*		*0.0269*		*0.0695*	
Debt	0.0003	0.0021	0.0107	0.0626	0.0278	0.1568
Equity	0.0004	0.0021	0.0161	0.0626	0.0417	0.1568
Expected IRR	*0.1479*		*0.0214*		*0.2450*	
Less than 10 per cent	0.0008	0.0030	0.0153	0.0486	0.0171	0.0526
10 to 15 per cent	0.0936	0.3575	0.0023	0.0070	0.0225	0.0661
15 to 20 per cent	0.0208	0.0833	0.0033	0.0105	0.0928	0.2853
More than 20 per cent	0.0327	0.1251	0.0005	0.0016	0.1127	0.3316

Table 4. Non-parametric tests for independence between the variable investment holding period (<5 years, >5 years) and other factors

Variables	Test	Probability
Type of actors (developers, investors)	Chi squared	<0.0001**
Type of participation (speculative, pre-let development)	Chi squared	0.2103
Financing of participation (debt, equity)	Chi squared	0.5327
Share of equity (less than 20 per cent, more than 20 per cent)	Fisher exact	0.0166**
Moment of participation in the cycle (downturn, other or indifferent)	Chi squared	0.9337
Expected IRR (less than 15 per cent, more than 15 per cent)	Chi squared	0.0393**
Motivation of participation (return on investment, other)	Chi squared	0.0122**
Efficient public aids (grant, indirect)	Fisher exact	0.6502
Indirect public aids (land availability and costs, public infrastructure and neighbouring environment quality)	Chi squared	0.1356
Opinion (risky zones, future development potential zones)	Chi squared	0.0817*
Risk (rental risk, other)	Chi squared	0.3205

*significant at the 10 per cent level; **significant at the 5 per cent level.

first three axes of inertia, representing the cloud of modalities. The first two-dimensional map (Figure 5) alone explains at least 71 per cent of the total inertia of the 9 active variables. This graphic output of correspondence analysis, which visualises the low-dimensional space relationships between variables, is particularly rich in information that can be used for setting up a typology of participants. To interpret the graph, the positions, relative to an axis, of the points belonging to a given cloud are examined. If two such points are close on the graph, they will have a similar profile. Graphically, the further a point is from the origin, the smaller its marginal weight and the bigger its contribution to inertia. Similarly, the smaller the angle between a point and an axis, the closer to 1 its squared correlation (cosine^2) on this axis.

From Figure 5, a homogeneous form can be observed for the cloud of modalities in plane 1-2. No quadrant of this plane is empty and many modalities are also positioned at the extremity of the axis, indicating that several of the survey questions have contributed to discriminate the sample population. This gives an interesting view of the interrelationships between the different factors of property investment.

Table 5. Non-parametric tests for independence between the variable involvement in urban regeneration initiatives and other factors

| Variables	Test	Probability
Type of actors (developers, investors)	Chi squared	0.8969
Investment holding period (less than 5 years, more than 5 years)	Chi squared	0.5453
Type of participation (speculative, pre-let development)	Fisher exact	0.0345**
Financing of participation (debt, equity)	Fisher exact	0.9026
Share of equity (less than 20 per cent, more than 20 per cent)	Fisher exact	0.5914
Moment of participation in the cycle (downturn, other or indifferent)	Fisher exact	0.4086
Expected IRR (less than 15 per cent, more than 15 per cent)	Chi squared	0.7139
Motivation of participation (return on investment, other)	Fisher exact	0.5055
Efficient public aids (grant, indirect)	Fisher exact	0.1055
Indirect public aids (land availability and costs, public infrastructure and neighbouring environnment quality)	Fisher exact	0.4309
Opinion (risky zones, future development potential zones)	Chi squared	0.8969
Risk (rental risk, other)	Fisher exact	0.5096

**significant at the 5 per cent level.
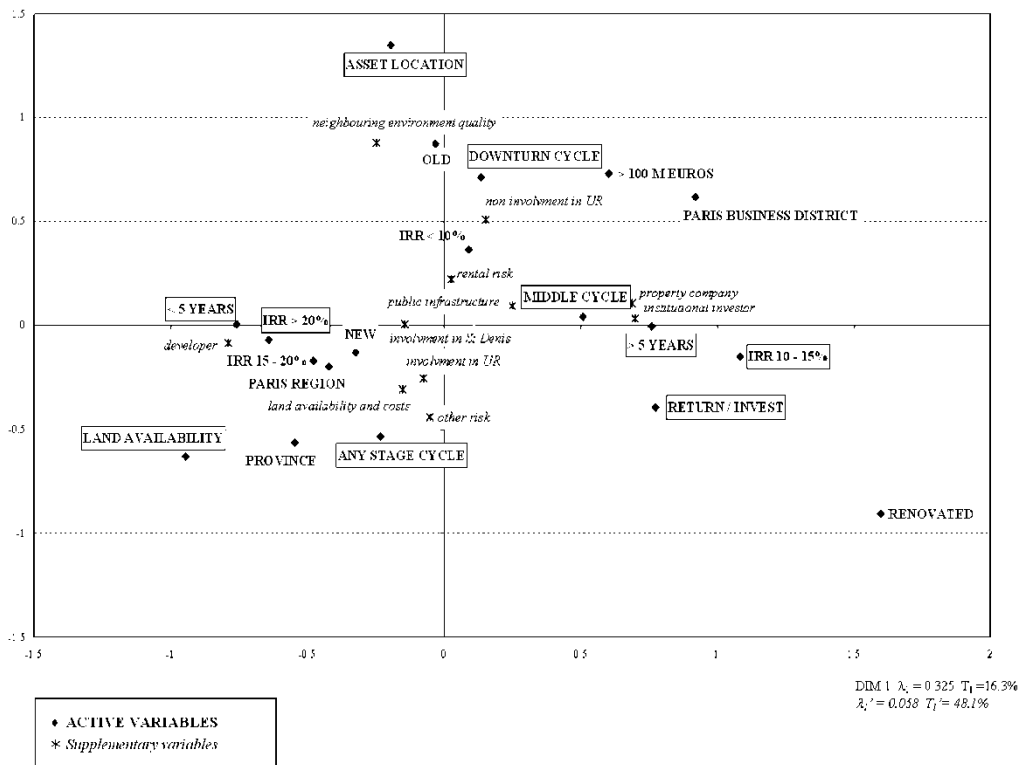
Figure 5. Study of the MCA plan 1-2.

Using Table 3 to identify the important points in the map, we see that the first factor is a dimension which groups together the following factors, in order of explained variance: *investment holding period*, *motivation for implantation* and *expected IRR*. These three features represent almost 52.8 per cent of the variance explained by the first dimension. The second dimension appears to be explained mainly by the following factors: *motivation for implantation (return on investment, asset location or land availability), moment in the property cycle* and the size of the *investment*. Lastly, the third dimension groups variables such as the *zone* of property investment and development during the 1997–2002 period, drawing a distinction between the *Paris region* and the *province*, or variables such as *expected IRR*.

Through the use of MCA, we can develop testable hypotheses about reliable associations between types of actors and the factors or criteria they take into consideration in their decision-making. We have seen that the investment holding period is one of the most important variables which can discriminate the population into two sub-groups: respondents who participate in the commercial property market on a short-term basis (less than 5 years) (16 respondents) and those who participate on a long-term basis (more than 5 years) (18 respondents). Non-parametric tests for independence between this variable and other factors show a statistically significant difference between the two sub-groups (Table 4).

This is particularly clear regarding the motivation for participation in the commercial property market. Return on investment constitutes the main factor for 61 per cent of the respondents who invest on a long-term time-horizon (more than 5 years), but only
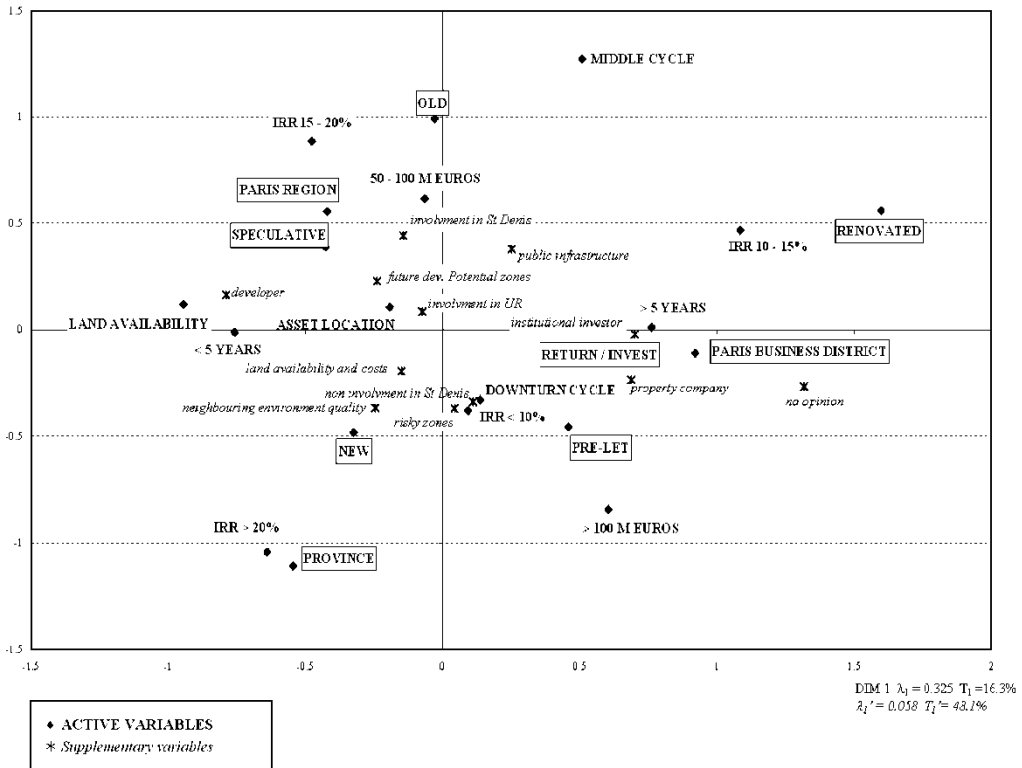
Figure 6. Study of the MCA plan 1-3.

for 19 per cent of the 16 respondents who invest on a short-term time-horizon (less than 5 years), who see land availability or asset location and value appreciation as more important.

In the same way, higher expected IRR (i.e. more than 15 per cent) is a measurable goal for companies with a short-term investment holding horizon and conversely, with a difference that is statistically significant at the 0.05 level. According to standard property investment theory, such a high level of IRR can be obtained with positive leverage, particularly with a low share of equity. Thus, 50 per cent of respondents who invest on a short-term time-horizon use less than 20 per cent of equity in their investment. This difference is also significant at the 0.05 level. The high level of statistical significance (0.05) associated with this criterion suggests that the understanding of the Paris region commercial

property market during the 1997–2002 recovery period should be analysed through this new framework.

With the profound changes in the property market over the past decade (as described in section 3.1) due to globalisation of both the economy and the property market, the traditional French property market boundaries between short-term developers and long-term institutional investors have begun to blur. Today, due to the major role played by foreign investors, a new typology of property actors appears to be emerging and structuring the property market. The main difference between them lies in the length of their involvement in the market. For instance, we can separate short-term investor-developers from long-term ones. As can be observed from the market and the Saint Denis plain case study (in section 3.2), these 'short-term' actors, mostly pension funds and non-listed vehicles,

have emerged today as a dominant force in commercial property markets. Our results thus confirm the typology presented by INREV regarding non-listed vehicles, which have considerably expanded in the past five years in Europe and France; the INREV typology is largely based on the investment time-horizon strategy (INREV, 2004).

5.2 Urban Regeneration Involvement

The second and last parts of the survey deal specifically with urban regeneration. More than two-thirds of the respondents (67.6 per cent, 23 in total) had already been involved in urban regeneration initiatives located in France (and 41 per cent had invested in the Saint Denis plain urban regeneration projects). Of these two-thirds, 48 per cent are developers, 30 per cent institutional investors and 22 per cent quoted property companies. In fact, 26 per cent of the total respondents had invested in such initiatives abroad. Of the sub-group of companies involved in French urban regeneration initiatives, 61 per cent had participated in the Saint Denis plain project. Lastly, approximately one-third of the sample consider these urban regeneration projects as highly risky projects, while 54 per cent see them as having future development potential.

Turning to the MCA maps, and particularly to the modalities relative to urban regeneration (*involvement in urban regeneration initiatives, non-participation in urban regeneration initiatives* and *involvement in Saint Denis*), we can observe dependence between these modalities and variables of property investment decision-making. In particular, it can be noted from Figures 5 and 6 that actors who have participated in urban regeneration initiatives, particularly in the Saint Denis plain regeneration, are closely associated with those who look for *speculative buildings* and variables such as *high returns (over 20 per cent)*. In contrast, actors who do not participate in urban regeneration are used to investing generally in *pre-let assets*, in the *long term* and expect lower returns. This confirms our observations in part 3 regarding the speculative nature of the

buildings developed in the Saint Denis plain (see Table 1).

Investment and involvement in urban regeneration projects, especially the Saint Denis plain redevelopment, were tested with respondent companies to identify their main features and motives for participation in the commercial property market. Tables 2 and 5 present the bivariate analysis and the tests between the set of companies which participated in urban regeneration during the 1997–2002 period and the set of those which did not.

The most frequent hypothesis developed in the literature is that urban regeneration locations or projects are perceived by the private sector as high-risk/low-return projects, offering only weak investment opportunities, and that total return emerges as the primary factor influencing investment decisions (see Adair *et al.*). In our survey, although achievement of high returns on investment was considered as the primary criterion in the investment decision-making process for 41 per cent of the respondent companies during the 1997–2002 period, no significant difference in behaviour can be observed between the sub-group of companies involved in urban regeneration and the sub-group of companies not involved. Other criteria have been listed such as land availability and costs or property asset location and value appreciation, which were both identified by 29 per cent of respondents as a major factor.

Paradoxically, the results in Table 5 also show the absence of any statistically significant dependence between urban regeneration involvement and other factors such as the expected IRR. However, the only highly significant difference between the two sub-groups in our analysis concerns the type of commercial risk borne by the respondents and the nature of their participation in the development process. The results of the dependence tests regarding the relationships between the studied variable and the handling of the commercial risk are really very enlightening. The analysis indicates that there is a correlation between the decision to participate in urban regeneration projects and the type of

commercial risk chosen. It is apparent that participants involved in urban regeneration have a willingness to invest in speculative operations with no rental guarantee and without knowing who the final users will be, such that they bear the entire commercial and rental risks. This test confirms the result shown in Table 2 that 62 per cent of the sample respondents involved in urban regeneration projects participated in speculative development operations. They also confirm what can be observed from the Saint Denis plain case study and what Nelson (2001) already mentioned in his comparative study of the development of new business districts in the Paris Bercy site and London's Surrey docks.

Finally, if we take another look at the investment holding period variable, it is interesting to note that 43 per cent of the companies already involved in urban regeneration projects have a projected investment holding horizon of less than 5 years (and less than 7 years for 63.6 per cent) and do not take a 'patrimonial approach'. This is also predominantly the case in the Saint Denis plain development (50 per cent). Our analysis also indicates that, in their investment strategy, 38 per cent of the companies chose to become involved during the downturn in the property cycle, when market values were the lowest, 12 per cent in the middle of the market cycle and 50 per cent of the sample did not mind, or did not know exactly, which stage, although the difference is not statistically significant between these two sub-groups (i.e. downturn and middle/ any stage). The test is, however, significant at the 0.10 level if we consider respondents' opinions about urban regeneration initiatives. Of respondents who consider urban regeneration projects highly risky (47 per cent of respondents), almost two-thirds generally invest for a long-term period. Conversely, those who consider urban regeneration initiatives as potential zones of development invest for a short-term time-horizon.

The level of statistical significance associated with these criteria suggests that there is a correlation between the decision to participate in urban regeneration projects and the type of commercial risk chosen. It seems that participants involved in urban regeneration prefer to invest in speculative operations, with no rental guarantees and an unknown final tenant, thus bearing the entire commercial and rental risk. This interest in such risky operations can be understood if we consider that private investors look primarily for capital appreciation and anticipate huge capital gains by investing during the downturn in the property cycle and in future-potential zones. Regeneration initiatives can stimulate counter-cyclical investment (Adair *et al.*, 2003). For the 23 companies which participated in urban regeneration projects, the anticipation of an increase in property value, and the nature and quality of property tenants, was identified by 13 per cent as a major factor in their decision. Factors such as land prices or competing participants are minor influences (5 per cent and 4 per cent). It is also very interesting to note that more than one-third of these participants attach greater importance to participation during a downturn in the property cycle, when the prospects for capital gains are the highest. However, this relationship cannot be tested. As suggested by Jones (1996) and McGreal *et al.* (2000), property-cycle-related capital appreciation seems to be a primary factor by which new projects are evaluated in urban regeneration initiatives.

A relationship between the decision to participate in urban regeneration initiatives and the nature of the risk (perception of the risk and risk bearing) is also observed, but cannot be tested. The survey analysis indicates that 66 per cent of the sample consider the primary risk for urban regeneration projects to be associated with rental risk (see Table 2). The administrative risk associated with the length of the administrative formalities and planning permission procedure or the cost of land decontamination, was identified as major by the second-largest group (19 per cent). Thus, the resale risk is not seen as predominant. It was considered the major risk by only 16 per cent of the total respondents and 9.5 per cent of the participants in urban regeneration.

Finally, urban regeneration involvement and public initiatives were tested for our respondent companies, without any success. However, indirect public non-grant instruments, such as the nature or quality of public infrastructure, are fundamental investment factors for 47 per cent of the sample companies. Furthermore, cost and availability of land are considered as a fundamental factor by 41 per cent of the respondents. In contrast, only 12 per cent of the companies identified public financial grants to be a major incentive to participation in urban regeneration. Of the participants in urban regeneration, 96 per cent consider non-grant-based instruments as the most efficient way to encourage private-sector involvement in urban regeneration initiatives. This applies particularly to the quality and quantity of public facilities (38 per cent of responses) and the cost and availability of land (48 per cent of responses).

6. Conclusion

The objective of this paper is to examine the features and motives of large property developers and investors who participate in the Paris region commercial property markets in general and in urban regeneration projects in particular. The analysis presented has focused on the behaviour patterns of 34 large companies during the last period of property investment recovery in the region, 1997–2002. The case of the Saint Denis plain urban regeneration in the traditional industrial northern inner suburb of Paris provides an interesting example of private-sector investor involvement in public urban regeneration policy. In just a few years, this site, which had long suffered from a very negative image, has seen new housing and major commercial property developments spring up, transforming part of the urban regeneration zone into a new business district. The success is all the more impressive because the northern part of the Paris region used to be an industrial zone and most business districts are located in the opposite, western part of Paris.

Based on a correspondence analysis, we have tried to analyse investors' and developers'

choice processes, introducing into the survey new considerations relative to the commercial risk (speculative or pre-let buildings), the investment time-horizon (short-term or long-term), the expected IRR (instead of return on investment as is usually the case in the literature) and the timing of participation in the property cycle (during a downturn or at any stage of the cycle). We set out to produce results that could provide a comprehensive classification of private-sector behaviours, highlighting the similarities and differences between property actor types. The typology defined identifies the relationships between these behaviours and the various motives underlying investment decision-making.

Regarding investors' motivations for participation in the Paris region commercial property market in 1997–2002, at the end of the property recession, the analysis confirms that achievement of high returns on investment and IRR were considered as the primary criteria of the investment-making decision, as the real estate literature indicated. Most of the property market actors wanted to participate in new building or renovation projects and often had a short-term investment holding period. At the same time, low interest rates had encouraged debt-driven investors and high volumes of real estate investment. The Paris region commercial property market in general thus offered a good example of positive leverage, with low interest rates and substantial capital appreciation during the recovery period.

Considering private-sector involvement in urban regeneration initiatives, the MCA analysis shows that companies which participate actively in these areas in the Paris region (notably in Saint Denis) are associated with those looking for the highest returns and interested in speculative developments. While return on investment is considered as the primary criterion by almost all participants, this factor is not sufficiently statistically significant to discriminate the sample and differentiate the attitudes of property actors in urban regeneration situations. Paradoxically, the results of our analysis show the absence of any statistically significant difference

between urban regeneration involvement and traditional property investment factors, such as the anticipated rate of return which has traditionally been widely used in the literature (see Adair *et al.*, 1999).

However, one key factor in urban regeneration less often encountered in the literature but tested in this analysis is the type of commercial risk borne. This is the most important result of the analysis. It is clearly apparent, both from the analysis and in the Saint Denis case study, that there is a willingness on the private-sector side to invest in speculative developments in urban regeneration initiatives. The study indicates that participants, particularly pioneer investors, in urban regeneration initiatives favour speculative building associated with high returns over a very short period. In contrast, investors who do not participate in urban regeneration generally invest in pre-let assets, over a longer time-period basis, while expecting lower returns.

With the structural changes in the Paris region property market over the past decade, due to globalisation of both the economy and the property market and the major role played by foreign investors, a new typology of property actors is emerging and structuring the property market. As an illustration, the investment holding period appears from our study to be a more relevant variable in differentiating the attitudes of property actors in their involvement in commercial property markets in general and urban regeneration in particular. The main difference between them lies in the length of their involvement in the market, and short-term and long-term investor-developers can clearly be distinguished. The above results imply that regeneration initiatives through property developments must take into consideration the prospects for capital appreciation seen from the investors' point of view. This raises the question, from an economic standpoint, of how the profit on the operation is to be shared between the actors.

Also, short-term participants attach greater importance to participation during a downturn in the property cycle, when the prospects for capital gains are the highest, principally using debt financing in their investment decisions. These investors look for high-risk/high-return projects. During the 1997–2002 recovery, in the context of the globalisation of commercial property markets and the explosion of the property investment market in the Paris region, property investment and development in urban regeneration initiatives stimulated counter-cyclical investment by short-term foreign investors. Of these participants in urban regeneration, 96 per cent consider non-grant-based instruments as the most efficient way to encourage private-sector involvement in urban regeneration initiatives. Overall, the results of the survey confirm that the nature and quality of public infrastructure, which enhances the qualitative image of the areas and contributes to the value appreciation of developments, is a fundamental investment factor for these participants. Despite the limitations of the survey and the small sample size, the findings confirm that the public sector has a key role to play in providing equipment and public facilities on a long-term basis, whereas the private sector provides funding for the construction work, levering investment based on the risk-return profile of regeneration projects. The Saint Denis plain case study demonstrates that large infrastructure investment by the state has changed the nature of the local property market and has attracted private investors looking essentially for quality of infrastructure and significant capital appreciation.

In conclusion, the evidence from the analysis in this paper is that investment returns for urban regeneration property can take the form of supernormal profits for pioneer investors depending on the use of leverage, the length of the investment time-horizon and the stage of the property-market cycle. Although urban regeneration is a long-term process, it is essential that policy initiatives take these time-horizon and actor profile specificities into account in their strategy.

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