



Real Estate for a changing world



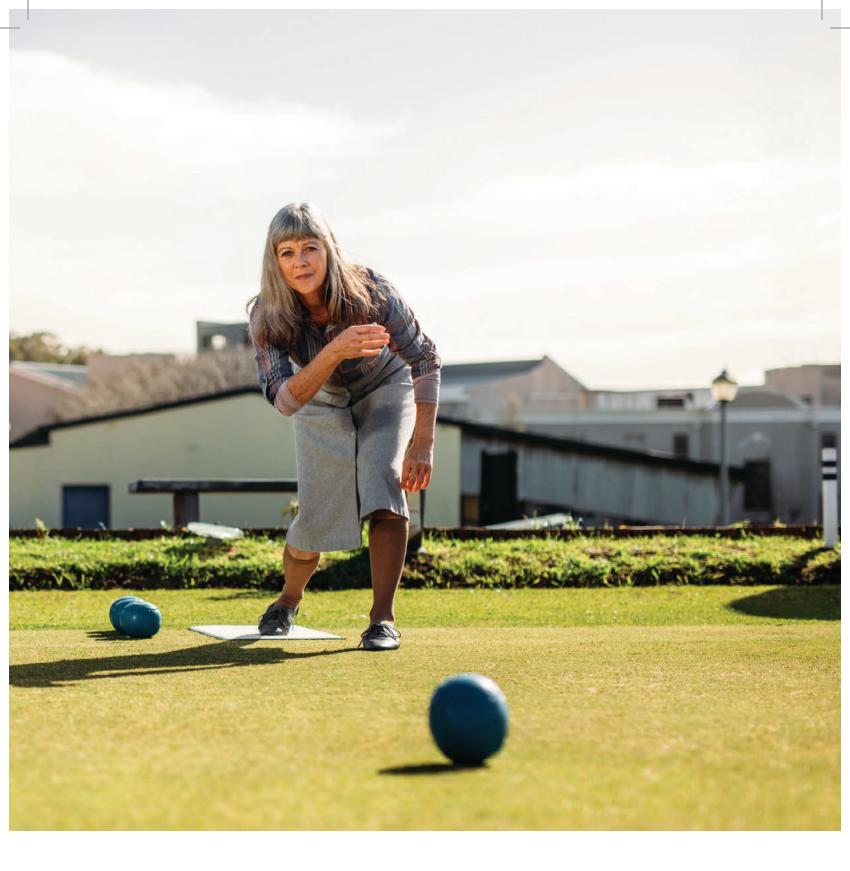
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FOREWORD



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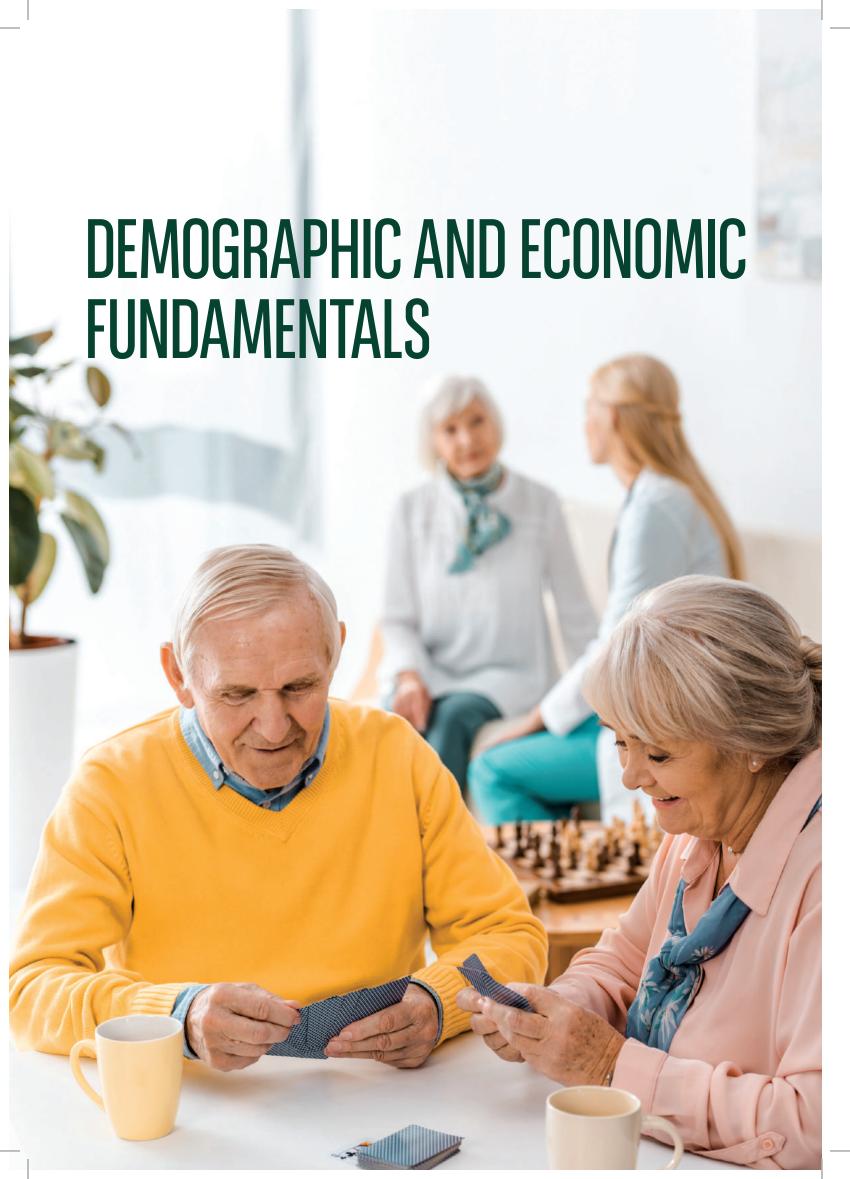


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The underlying economic and demographic trends driving the healthcare real estate market are compelling.

In this report, we provide an overview of the healthcare sector in selected European countries, including supply and demand drivers, industry background and key real estate investment features.





DEMOGRAPHIC AND ECONOMIC FUNDAMENTALS

Demand for healthcare real estate is supported by the following components:

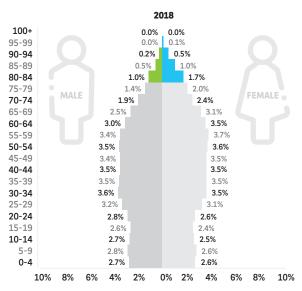
A. AGEING POPULATION

While the European population is overall barely increasing, the most significant phenomenon is the change in its structure. Indeed, baby boomers, who are nowadays aged 45 to 70 years old, are progressively retiring. By 2048, some thirty years from now, people over 80 years old, which currently represent 6.5% of total European population, will be around 12.8% (Exhibit 2). This is

equivalent to an increase by around 33 million people overall in Europe. This first assessment reveals the growth potential for the European healthcare market.

The ageing of the population is common to all countries, albeit some countries such as Italy and Germany are ageing faster than others. (Exhibit 3).

EXHIBIT 2 • AGE STRUCTURE IN EUROPE (PYRAMID IN %)





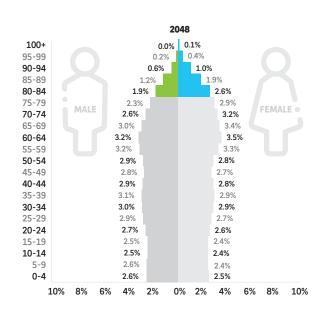
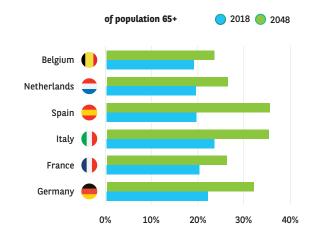
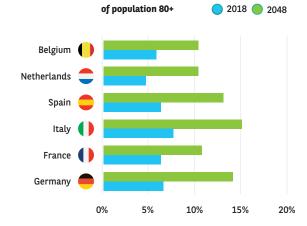


EXHIBIT 3 • AGE STRUCTURE IN EUROPE (%)





Source: LIN 2019

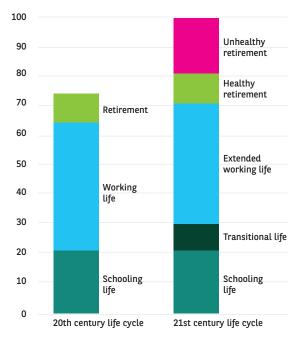
DEMOGRAPHIC AND ECONOMIC FUNDAMENTALS

Not only is the number of elderly increasing, they are living better and longer as well. At the end of the 19th century, the average retiree lived for two years post-retirement compared to approximately 20 years nowadays. This stable increase in longevity is affecting human behaviour and the different stages in the life-cycle. First, working life tends to start later because of a period of transition, featuring extended periods of studying, late marriages and renting preferred to purchasing a home. As a result, working life tends to start later to last longer as the retirement age is progressively shifting. This working life may well include gap years, frequent change of job or career. Currently, 70 is the new 65 (Exhibit 4).

However, not all of this increase in life expectancy is expected to be healthy. For example, on average in Europe, a man and a woman at age 65 will have an additional life expectancy of approximately 18 years and 21 years respectively. On average, only 10 of these years will be lived in good health and problems will increase at age 80. Later years will be characterised by age-related health issues resulting in an important decrease in quality of life and increasing cost to healthcare budgets, a higher need for healthcare, and in many cases a need for adapted accommodation.

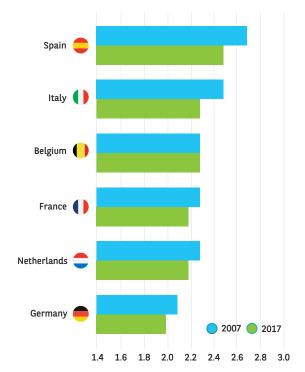
Sociocultural and economic evolutions have an impact too. As families become smaller (Exhibit 5) and women's participation rate to work increases, care within the family will become increasingly difficult and, as a result, there will be more demand for ex-family care. This should create an additional layer of need and demand for elderly support services including nursing homes.

EXHIBIT 4 • AGE STRUCTURE IN EUROPE (%)



Source: BNPP REIM

EXHIBIT 5 • AVERAGE HOUSEHOLD SIZE (PEOPLE)



Source: Eurostat, 2019

DEMOGRAPHIC AND ECONOMIC FUNDAMENTALS

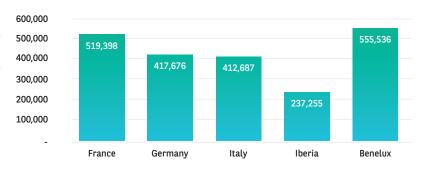
B. SENIORS' WEALTH

The level of wealth of senior citizens during retirement can help us assess their capacity to afford medical care, including a nursing home if and when needed (Exhibit 6). Based on the figures shown below, and all other things being equal (notably the cost of care or medicalized accomodation), people based in France and the Benelux could afford more healthcare provision than people based in Spain.

Average wealth is composed by real estate, other types of capital and revenues (mainly pensions, the average per country ranging from €9,000 to €25,000/year), weighted by the average length of the retirement period.

TO COMPLETE THE ANALYSIS, THE FIGURES ABOVE SHOULD BE PUT IN PERSPECTIVE ALONG WITH:

EXHIBIT 6 • AVERAGE PERSONAL WEALTH AT RETIREMENT AGE (€/RETIRED PERSON)



Source: Eurostat 2017, OECD, Crédit Suisse 2017, BNPP REIM

~2 years THE AVERAGE LENGTH OF STAY

IN A NURSING HOME

€20,000/y - €40,000/y

THE AVERAGE YEARLY COST OF STAY DEPENDING ON THE COUNTRY

(that might be partially covered by public spending)

C. GLOBAL GROWING NEED FOR HEALTHCARE

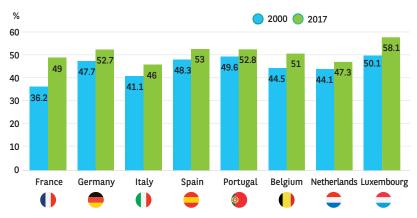
In addition to the impact of an ageing population, the rising prevalence of new types of pathologies (burnouts, allergies, etc.) and chronic diseases (such as diabetes or hypertension), related to the growth in life expectancy and the increase in some risk factors such as overweight or stress, affects a significant share of the population (Exhibit 7).

The co-occurrence of several chronic diseases in a person, typically referred to as multi-morbidity, is also becoming progressively common. Over 50 million people in Europe have more than one chronic disease, due to either random co-occurrence or likely shared underlying risk profile. Complexity of treating and caring for patients with several conditions tend to increase dramatically with the number and combination of health issues.

The need for specific healthcare treatments is therefore rapidly increasing, from surgery in general hospitals to stays in specialised clinics for mental care or rehabilitation (follow-on care).

Moreover, the advancement of medical technology is likely to continue, generating the multiplication of patient treatment options and the growth in physician or hospital visits. In parallel, as the population is better educated and has more access to online information related to health topics, it will be increasingly more inclined to demand the latest medical innovations and to have opinions from various specialists.

EXHIBIT 7 • OVERWEIGHT OR OBESE POPULATION



Source: OECD, 2018



A. SIZE AND FUNDING OF THE EUROPEAN HEALTHCARE SYSTEM

Healthcare spending represents between 8 to 11% of the national GDP (Exhibit 8). The relative weight of healthcare spending has increased over the past 20 years but, as a result of pressures on public finances, we anticipate some downward pressure on public spending over the next few years, which should, conversely, result into an increase of the importance of the private sector.

There are two main sources of financing for healthcare in Europe:

• The most significant one is government spending and compulsory health insurance, which represent more than 75% of healthcare funding (Exhibit 9). In the countries with the strongest welfare (France, Germany, andBenelux), the share of government health expenditure is higher than in the Southern European countries where the share of out-of-pocket reaches over 20%.

• Voluntary health insurance (most of them non-profit, mutual insurers...) and private funding such as households' out-of-pocket payments, NGOs and private corporations represent the other source of financing.

As a result of the strain on public balances, an increasing share of the cost of healthcare is shifting to individuals from companies and healthcare is becoming consumer-driven in a way it never has before. Overall, even if the public component of spending is likely to decrease, it is still expected to cover most of the costs as healthcare remains a pillar of the European welfare

EXHIBIT 8 • HEALTH EXPENDITURE OVER GDP (%)

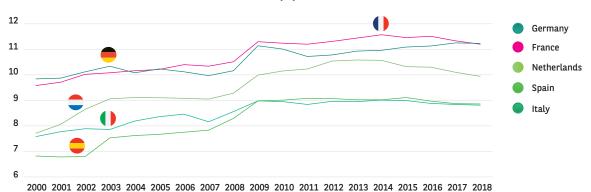
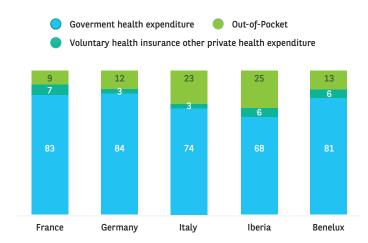


EXHIBIT 9 • HOW HEALTHCARE IS PAID FOR BY COUNTRY (%)



Source: OECD, 2018

More than IS FINANCED BY PUBLIC SPENDING

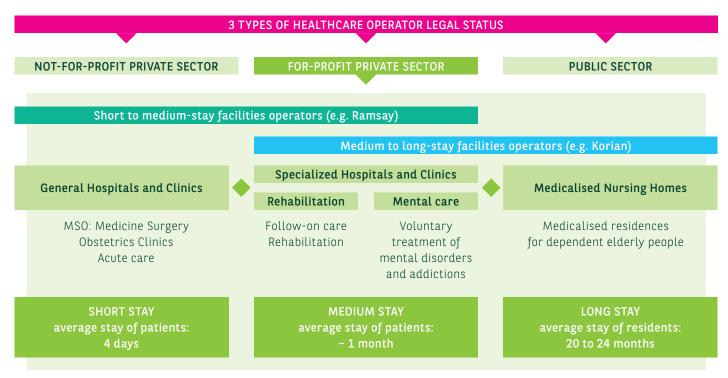
MARKET STRUCTURE

B. HEALTHCARE PROVISION IN EUROPE

In Europe, healthcare supply in hospitals and clinics (categorised as short-stay and medium-stay facilities) and medicalised nursing homes (categorised as longstay as residents stay on average 24 months) is provided by three types of healthcare providers (Exhibit

10). The core of the healthcare real estate market for institutional investors is the one supplied by private sector providers, which are expected to play an increasing role in the coming years.

EXHIBIT 10 • HEALTHCARE PROVISION BY STATUS



Source: DREES, 2015

C. HEALTHCARE REGULATIONS IN EUROPE

Regulation plays a major role in the healthcare supply and funding. The various regulatory bodies protect the public from a number of health risks and regulate the provision of healthcare through different mechanisms that can vary across countries, e.g.:

- Authorisations to build facilities or to create new beds/ surgery rooms
- Authorisations to operate facilities and/or provide specific care or treatments (surgery, obstetrics, emergency, oncology...)
- Regular inspections of properties and technical equipment
- Public rating of facilities

As a result, the healthcare sector is characterised by strong barriers to entry as supply is subject to strict controls. The procedures and timing for obtaining an operating authorisation vary largely across European countries, for example with France being relatively stricter vs. other countries such as Spain (Exhibit 11).

MARKET STRUCTURE

These barriers to entry give existing healthcare actors a significant competitive advantage.

For a few years, and notably in the public sector, hospitals have been required to increase productivity. However, the European healthcare system is facing conflicting interests: on one hand, financial constraints and on the other, increasing demands from an increasingly-expanding and ageing population. According to Hospital Healthcare Europe, from 2000, the number of acute hospital beds decreased significantly all over Europe (Exhibit 12) with an opposite increase in the outpatient treatment portion of acute hospital activity. In this context, the weight of private operators, more cost efficient, is expected to grow in the coming years.

Average reduction

ACUTE CARE HOSPITAL BEDS IN THE EU

(per 100,000 population, from 2000 till now)

To some extent, the role of hospitals is evolving. Most health systems have already moved from a traditional hospital-centric and doctor-centric pattern of care to integrated models in which hospitals work closely with primary care or follow-on care and nursing homes.

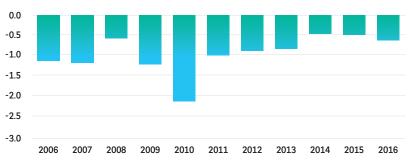
Data on nursing homes are of variable quality. Nonetheless, Eurostat estimates that the total number of beds within the EU is of ca. 3.8 million. We have been able to track historical data for the major EU markets, i.e. Germany, France and Italy from 2000 to 2015. While supply of beds has somehow increased, it was largely lower than the increase in the 80+ cohort of the population (Exhibit 13).

The end result is that healthcare supply has decreased overall. As pressure from demand is only increasing, there is a strong need for new beds, notably on the medicalised nursing homes market.

EXHIBIT 11 • REGULATION BY COUNTRY - NURSING HOMES

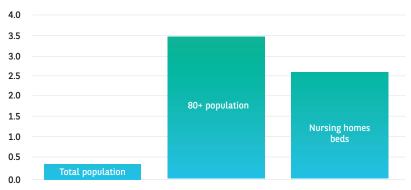
	FRANCE	GERMANY	SPAIN	ITALY	BELGIUM
LICENCING PROCESS	Licensed, competitive tender to obtain operating licenses from regional authorities. Currently difficult to obtain new licences	Free but wide disparity between federal states (control types, max # of beds). Authorities supervise public funding via the "Ikost" mechanism	Relatively free with limited restrictions on develop- ment but authorities approval required for public financing	Licensed, operating licenses with supervision run by local authorities	Licensed, strict regulation on operating licenses and price control. Currently difficult to obtain new licences
REGULATION LEVEL	National	Regional	Regional	Regional	Regional

EXHIBIT 12 • AVAILABLE BEDS IN HOSPITALS IN THE EU (% CHANGE)

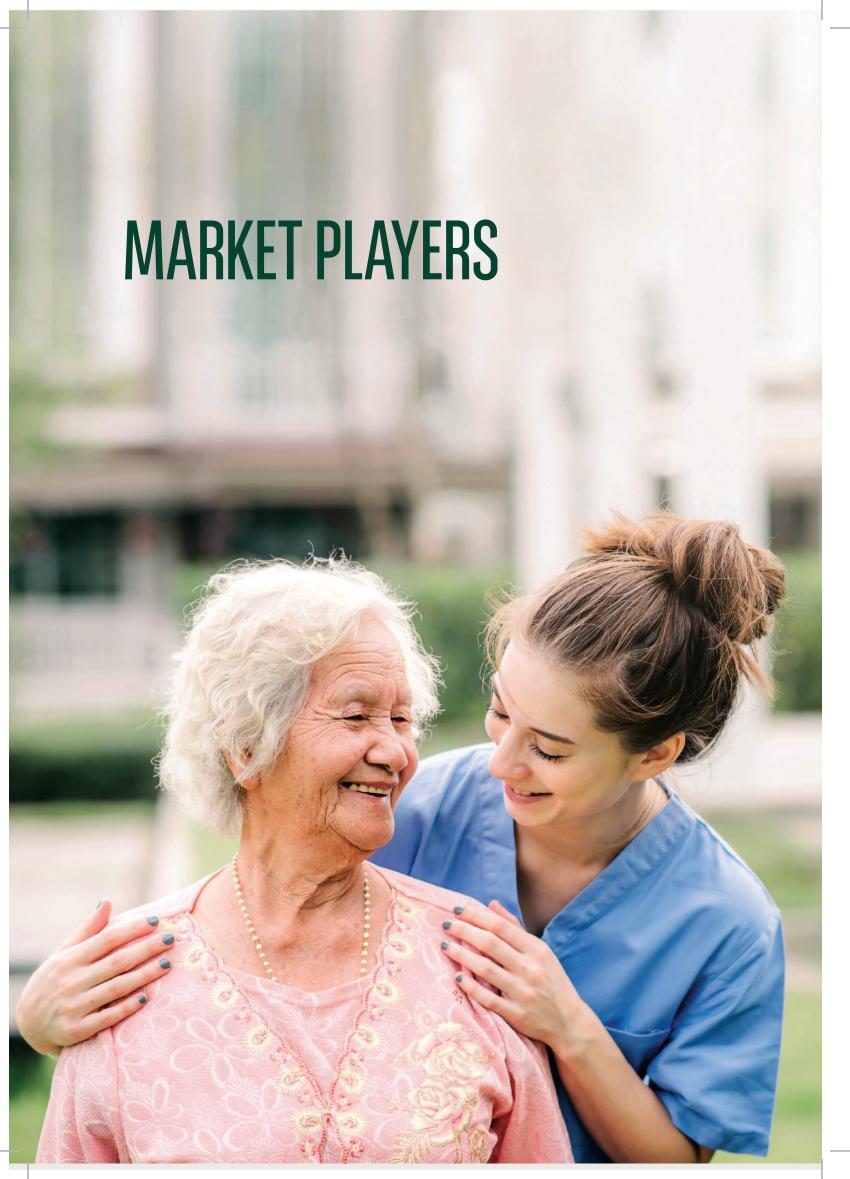


Source: Eurostat. 2019

EXHIBIT 13 • INCREASE IN POPULATION VS. BEDS IN NURSING HOMES IN FRANCE, ITALY AND GERMANY (% CHANGE P.A. 2000-2015)



Source: UN, Eurostat, BNPP REIM, 2019



Each European market has a different structure in terms of who supplies healthcare services, which also depends on the type of healthcare facility (hospitals/clinics vs. nursing homes).

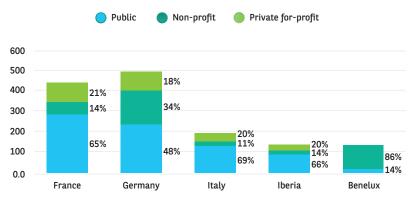
A. GENERAL HOSPITALS OPERATORS

Within the hospital segment (short stay), public hospitals are generally predominant, as illustrated in Exhibit 14.

It is nonetheless important to note that the private sector, which is the natural target for institutional real estate investors, represents 20 to 30% of the number of beds. Private operators, that have grown significantly in the previous years (e.g. Capio, Ramsay Generale de Santé, Helios Kliniken, Asklepios...), feature higher productivity than public hospitals and often specialise on the most profitable healthcare services (eye and functional surgery, obesity surgery, aesthetic surgery...) with an increasing presence of higher-end "hospitality" services (special meals, single rooms, rooms for family and relatives, comfort options such as cable TV, WIFI, etc...).

Most of the general hospital revenues (75% to 90%) are financed by public spending, through government (social security).

EXHIBIT 14 • MARKET BREAKDOWN BY LEGAL STATUS OF OPERATORS - GENERAL HOSPITALS (THOUSAND BEDS)



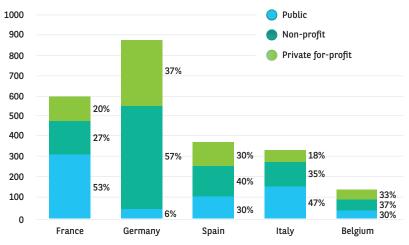
Source: OECD, YourCare, 2018

B. MEDICALISED NURSING HOMES

Within the medicalised nursing home market, in France and Italy most beds are operated by public entities while in Germany, Spain and Belgium the dominant players are part of the private non-profit sector (Exhibit 15). The private sector represents between 20 and 40% of beds, in most cases with a more "premium" approach, higher prices and superior services (single rooms, modern buildings...).

Within this segment, a significant part of the revenues of the operators (either public, non-profit or for-profit) corresponding to the accommodation, food and other services is paid directly by the residents (50% to 70% in most countries and up to 100% in some cases). The remaining part, corresponding to care medical services, is usually financed by public spending.

EXHIBIT 15 • MARKET BREAKDOWN BY LEGAL STATUS OF OPERATORS - MEDICALISED NURSING HOMES (THOUSAND BEDS)



Source: Cushman & Wakefield 2018 retirement homes report, BNPP REIM

MARKET PLAYERS

C. CONCENTRATION AND INTERNATIONALISATION OF PRIVATE OPERATORS

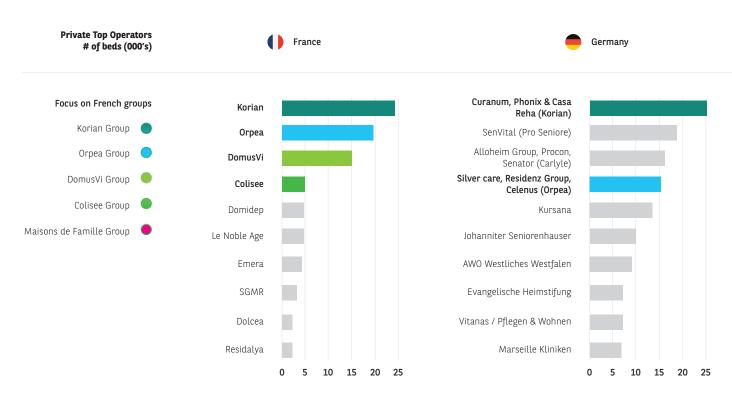
For some years, the European healthcare market has gone through a process of national and/or cross-border consolidation across the largest European private hospitals and nursing home operators. This is mainly explained by the strict regulations limiting new operating authorisations which leads operators to grow through acquisitions in order to gain market shares and improve their profitability.

The process is largely advanced in France, in progress in Germany but is still in its infancy in countries such as Spain and Italy where these markets are still more fragmented. The French healthcare operators (Korian,

Orpea, Ramsay Générale de Santé...) are ahead of the game in this context, notably due to the strict regulatory environment in France which led them to develop their operations internationally and pursue their growth. They are now market leaders in some countries outside of France (Exhibit 16).

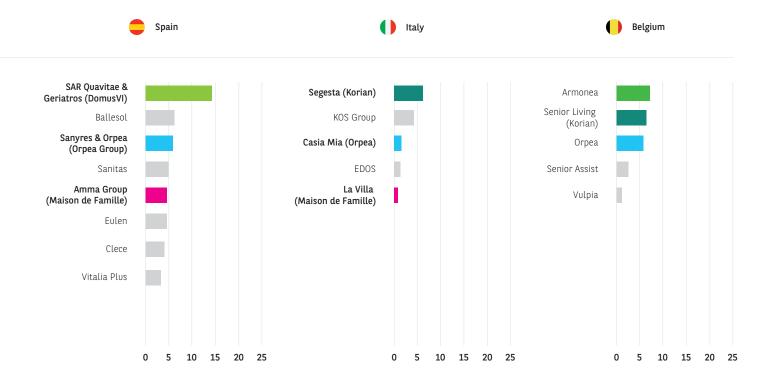
In principle, it is possible to diversify across different geographies while maintaining a preferred relationship with the same operator. Large operators are more stable, both in financial and operational terms, therefore, they represent a preferable covenant for investors. All this contributes to the growing maturity of the sector.

EXHIBIT 16 • MAIN PRIVATE MARKET PLAYERS - MEDICALISED NURSING HOMES

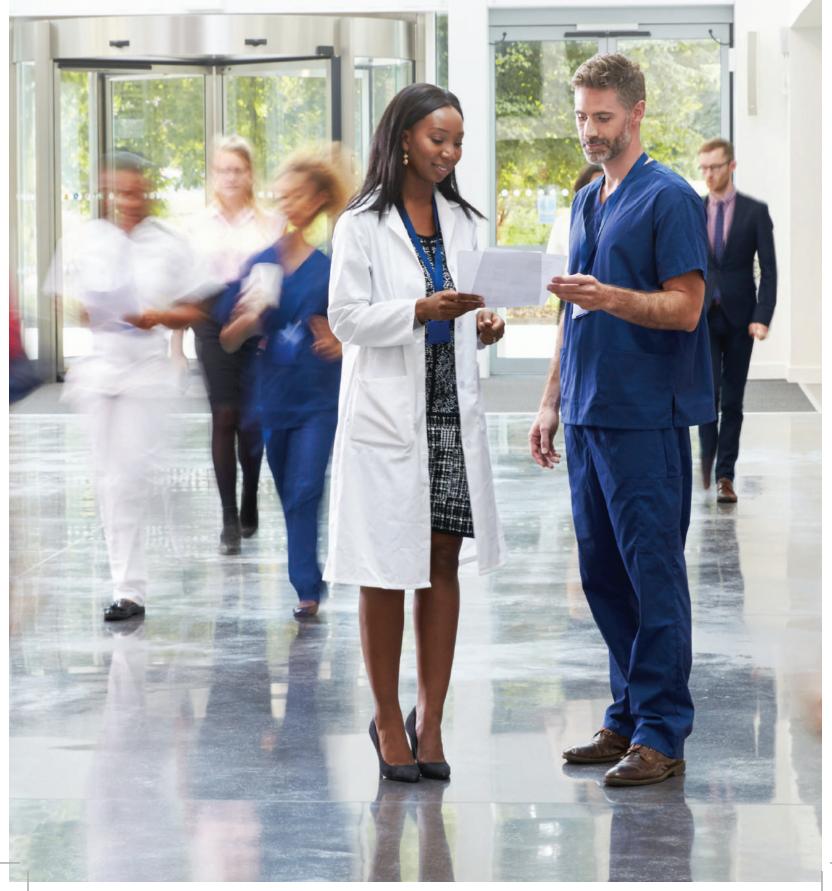


Source: BNPP REIM, Cushman & Wakefield 2018 retirement homes report, CBRE Nursing Homes Germany study, 2019









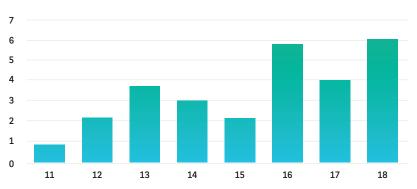
INVESTMENT FEATURES

A. MARKET LIQUIDITY AND PRICING

Liquidity has increased in Europe for alternative real estate assets in general, and for healthcare properties in particular (Exhibit 17). The most liquid markets of the Eurozone remain Germany, Benelux, France and Spain. We expect strong growth for healthcare investment, notably with the continued concentration of the market.

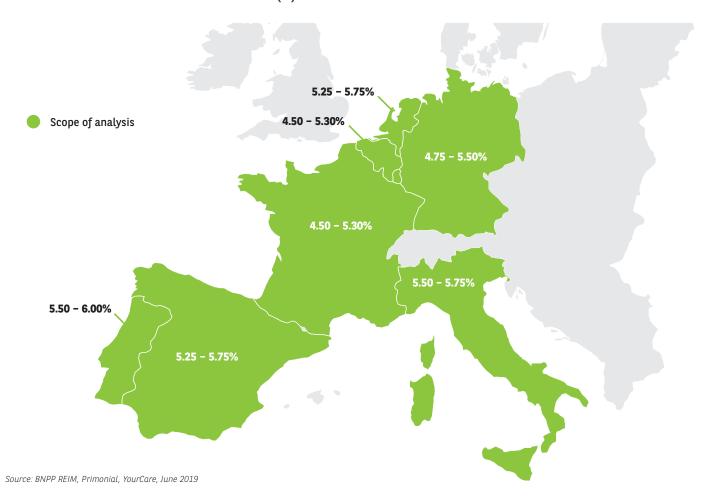
For prime assets, the risk premium with prime offices stands at 150 to 250 basis points as of the time of writing, which makes these markets attractive to investors on an adjusted risk-return basis (Exhibit 18). This is expected to support further new entrants into the market and subsequently drive up prices. Moreover, investors are particularly attracted by the long-term leases feature of this asset class, which provide steady foreseeable cash-flows, due to long-term lease contracts with healthcare operators.

EXHIBIT 17 • INVESTMENT LEVELS IN EUROPEAN HEALTHCARE (€ BILLION)



Source: BNPP REIM, Primonial, YourCare, June 2019

EXHIBIT 18 • HEALTHCARE YIELDS IN EUROPE (%)



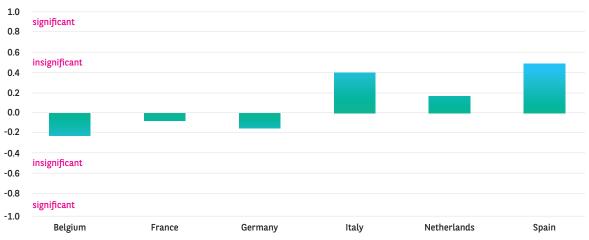
INVESTMENT FEATURES

B. DECORRELATION WITH THE BUSINESS CYCLE

The performance of commercial property is generally based on the impact of the wider business cycles and the specific demand-supply dynamics of the individual sector. These factors affect each property type in a different fashion. The healthcare sector is typically less sensitive to fluctuations in the economy than other property types, largely because its tenants are somewhat less affected by economic cycles. Individuals

will still require medical and healthcare services even during economic downturns. Exhibit 19 highlights that healthcare spending and GDP growth are indeed largely uncorrelated. As a result, it is highly likely that fundamentals in healthcare real estate would be largely unscathed even in the case of a downturn of the economy.

EXHIBIT 19 • CORRELATION BETWEEN GDP AND HEALTHCARE SPENDING GROWTH 1991-2018 (%)



Source: BNPP REIM, 2019

C. HIGH RISK-ADJUSTED RETURNS

Historically, healthcare real estate has shown great resilience in terms containing downturns and showing low return volatility. This is largely related to the fact that this sector is not particularly affected by swings in the business cycle (Exhibit 20).

EXHIBIT 20 • RISK-ADJUSTED RETURNS 10Y* (%)

GERMANY							
Office	Logistics	Retail	Residential 3.1	Healthcare			
1.7	1.3	4.1	3.1	3.5			
FRANCE							
Office	Logistics	Retail	Residential	Healthcare			
1.7	1.3	2.0	1.7	2.7			

Source: BNPP REIM based on MSCI data, 2019 (*) Average return divided by standard deviation

INVESTMENT FEATURES

D. WHERE TO INVEST?

Investment key criteria

Benefiting from the strong expertise and track-record developed in the healthcare real estate market, BNP Paribas REIM has set up a detailed approach for the selection and management of healthcare assets. This approach relies on the analysis of:

- Location, property characteristics and competition for each asset
- Healthcare features of each asset: number of beds and places, % of single/double rooms, breakdown of healthcare services provided
- Regulations in force for each asset and the compliance with requested authorizations
- Reputation of the operators
- Profitability of each asset, in order to assess the long-term rent affordability (rent / revenues or rent / EBITDAR)
- Solidity of the covenants (most lease agreements being guaranteed by mother company guarantee)

These indicators are then monitored continuously during the management period.

Market ranking

As a real estate investor, we are particularly interested in understanding which markets offer the best potential for sustainable returns. We have therefore developed a formal, in-house, methodology aimed at ranking markets. Tighter investment criteria maximise expected returns and mitigate risk. Selected markets should score well on most, if not all, of the following features:

- Growth in the segment 65+ and 80+ years old
- Evolution of chronic diseases
- Senior citizens' wealth, income growth
- Entry barriers and lease length
- Supply of healthcare
- · Liquidity and pricing

Our analysis includes all potentially investable markets within the Eurozone, according to the criterion of a minimum investible market size. Next, we apply our scoring methodology by assigning specific weights to each variable. Exhibit 21 shows the scoring for all the markets included in the analysis. The scoring varies from 5 (the most attractive) to 1 (the least attractive). Based on the ranking matrix and the size of each market, our investment management team elaborated a geographical allocation tool. Please contact the authors for a full explanation.

EXHIBIT 21 • SIMPLIFIED MARKET RANKING MATRIX

	DEMOGRAPHICS POTENTIAL	PERSONAL WEALTH	INDUSTRY BARRIERS	INCOME RETURN	WEIGHTED AVERAGE	INVESTMENT TURNOVER (€ MILLION) 2017-2018 AVERAGE
FRANCE	5,0	5,0	5,0	1,0	4,2	650
GERMANY	5,0	4,0	3,0	2,0	3,6	1300
ITALY	4,0	3,0	4,0	5,0	4,0	295
IBERIA	3,0	1,0	3,0	5,0	2,9	630
BENELUX	2,0	5,0	5,0	3,0	3,7	815

Source: BNPP REIM, 2019





DARRIBERE DEPUTY HEAD OF FUND MANAGEMENT FUND MANAGER OF EUROPEAN HEALTHCARE FUNDS

described in this Research report, healthcare Real Estate represents a good opportunity to benefit from the strong economic and demographic fundamentals underlying the healthcare market, which is one of the pillars of the European social system.

On the demand side, a significant increase in the need for healthcare services, and notably for nursing homes, is forecast for the coming years as a result of the massive population ageing and the rising incidence of chronic diseases requiring care treatment throughout the life of an individual.

On the supply side, strong barriers to entry due to strict market regulation, protect this sector from an over-supply risk and provide existing operators, that have been continuously concentrating in the previous years, with a significant competitive advantage. In the context of the strain on public finances, private operators are moreover expected to assume an increasingly important role in the future, which should generate additional investment opportunities on a Pan-European scale.

In addition, the healthcare market is not correlated with the business cycle. Consequently, healthcare real estate appears more defensive against economic downturns than other real estate sectors, thanks to the prevalence of long lease terms and the need-based nature of the services, and as such offers an attractive diversification tool for real estate investors.

As a conclusion, within a context of generally low property yields and flerce competition for core assets, investing in healthcare real estate has the potential to generate higher returns, and stable and long-term cashflows.

BNP PARIBAS REAL ESTATE

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As regards Central & Eastern Europe, we provide services in respect of Capital Markets, Property Management, Transaction, Valuation and Consulting.

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