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Hotel Valuation: Case Study of the acquisition of Tivoli Marina Vilamoura and Tivoli Carvoeiro

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Master in Finance

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PhD Rui Manuel Meireles dos Anjos Alpalhão, Invited Full Professor, ISCTE-IUL

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BUSINESS
SCHOOL

Department of Finance

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This dissertation marks the culmination of my academic journey which in last years also overlapped with the start of my professional career. It has been a challenging yet rewarding experience, shared alongside a number of people from which I would like to express my gratitude to.

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Resumo

O Caso de Estudo foi desenvolvido com o objetivo de introduzir os alunos ao mundo dos fundos de investimento privado em imobiliário e ao lado financeiro da indústria hoteleira.

Baseado numa transação real de dois resorts em Portugal, o Tivoli Carvoeiro e Tivoli Marina de Vilamoura, o caso segue Catherine Nunez, uma analista financeira da empresa Azora, enquanto ela analisa os aspetos financeiros da transação como parte do processo de investimento do recém-criado Azora European Hotel & Lodging, F.C.R.

A criação do fundo no final de 2019 surge interrese crescente dos investidores em participar no crescimento da indústria hoteleira na Península Ibérica na última década. O Algarve, o principal destino de sol e praia de Portugal, estava a apresentar um forte crescimento na atividade turística, com ambos os resorts bem posicionados em áreas desejáveis junto ao oceano.

Apenas alguns meses depois, a Organização Mundial da Saúde declarou uma pandemia mundial, a Covid-19, levando a um dos períodos mais conturbados para qualquer participante na indústria hoteleira devido aos confinamentos, proibições de circulação e altos níveis de incerteza sanitária e regulatória.

Em 2021, o fundo adquiriu ambos os resorts e o estudo de caso exemplifica parte da análise realizada antes do fecho da transação para chegar ao Valor de Mercado dos ativos.

Palavras-Chave: Fundos de Investimento em Imobiliário Privado; Análise Financeira de Hotéis; Transação de Hotel; Avaliação Imobiliãria

Classificação JEL: G34; R33

Abstract

The Case Study was developed with the aim of introducing the students to the world of real estate private equity funds and to the financial side of the hotel industry.

Based on an actual transaction of two resorts in Portugal, Tivoli Carvoeiro and Tivoli Marina de Vilamoura, the case follows Catherine Nunez, a financial analysist from the firm Azora as she analysis the financial aspects of the transaction as part of the investment process of the newly created Azora European Hotel & Lodging, F.C.R.

The creation of the fund in late 2019 comes from the growing interest of investors in partaking in the hotel industry's growth in the Iberian Peninsula in the past decade. The Algarve, Portugal's prime sun and beach destination, was experiencing high growth in the tourism activity with both resorts being well positioned in desirable areas right by the ocean.

Only a few months after, the World Health Organization would declare a worldwide pandemic, Covid-19, leading to one of the darkest periods for anyone in the hotel industry due to lockdowns, travel bans and high levels of health and regulatory uncertainty.

In 2021, the fund acquired both resorts and the case study exemplifies part of the analysis undertook before the closing of the transaction in order to arrive at the Market Value of the assets.

Keywords: Real Estate Private Equity Fund; Hotel Financial Analysis; Hotel Transaction; Real Estate Valuation

JEL Classification: G34; R33

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1. Case

1.1 Business Situation

In July of 2018, Blackstone made a tender offer of around €2,000 million for the largest hotel room owner in Spain, a company called Hispania Activos Inmobiliarios (Hispania), which at the end of that year would reach more than 13,100 rooms across 46 hotel establishments, focused mainly on the leisure segment, and several developments in the office and for-rent residential sectors. The transaction rewarded its shareholders with an IRR of 19% since the company's creation in 2014.

This "small" feat was achieved by one of the largest independent real asset investment managers in Spain, the Azora Group. Founded in 2003, the group has been the first mover in Spain in sectors such as private rented residential buildings, student housing units and sun & beach hotels, the latter with the beforementioned Hispania.

After this success, the Group wanted again to explore the sun & beach hotel segment, this time also going international. So, on the 25th of November of 2019, the Azora European Hotel & Lodging, F.C.R was created with the objective of investing in medium to high-end units in already established "sun and beach" locations in the Iberian Peninsula, with the possibility of also investing in other Southern Europe countries.

This would prove to be harder than initially thought, as only four months later, in March 2020, the World Health Organization would officially declare a new worldwide pandemic, dubbed Covid-19. The declaration would mark the beginning of one of the darkest periods for anyone in the hotel industry due to lockdowns, travel bans and high levels of health and regulatory uncertainty.

Still the fund needed to deploy around €1,800 million worth of capital, raised through equity and debt, so the investment team began the process of identifying acquisition targets. Catherine Nunez, an investment associate at the firm is tasked with identifying potential acquisition targets in Portugal.

In Portugal, the hotel industry boomed during the last decade with the rise of international recognition of its destinations with highlights to the cities of Porto and Lisbon and the region of Algarve, the latter as an internationally recognized "sun and beach" location, especially attractive for English tourists.

Within the region there are different degrees of tourism concentration, with the main areas being located in the "Algarve Golden Triangle", between Vilamoura, Vale do Lobo and Quinta do Lago. Apart from these areas, other locations like Carvoeiro offer a calmer experience while still delivering all the features that make the Algarve a prime holiday destination.

In the early days of 2021, with the hope of a return to normality fueled by the development of a vaccine and a recovery of the sector in the coming couple of years, Catherine had already narrowed down a list of potential targets, from which she is researching two on the coasts of Algarve.

Both assets had a similar past and present, being over 20 years old, being part of the same brand, underwent renovation in recent years after being acquired following a complicated bankruptcy process of its owners' group and finally ending up part of one of the largest hotel owners and operator in the world.

The two assets in question are the iconic Tivoli Marina Vilamoura Resort, a 383-key resort located at the entrance of the Vilamoura Marina, and the Tivoli Carvoeiro Resort, a 248-key resort located on top of a cliff in Carvoeiro. Both with a 5-star rating and managed by Tivoli Hotels and Resorts, a renowned Portuguese hotel brand, acquired by Minor Hotel Group in 2016 and later included in its subsidiary's brand portfolio, the NH Hotel Group.

The next step after the identification of the targets is to calculate an initial bid price for each asset, based on the projections of future earning potential.

To arrive at the bid price, Catherine will first need to calculate the market value of the properties based on future financial performance of the resorts. With this in mind, the objective of this case is to arrive at the market value of both assets as of 31st of March 2021, so then it can proceed with the initial bid and begin the negotiation process with the goal of reaching an agreement with the seller for the acquisition of the assets.

For the discussion of the case, a basic theoretical understating of Private Equity Real Estate Funds and the Hotel Business is required, followed by the financial analysis of the deal using real estate valuation techniques.

1.2. Real Estate Private Equity Funds

1.2.1. History

Real Estate Private Equity Funds were a follow-up on the Levered Buyout (LBOs) trend that occurred in the 1970s and 1980s, where investment firms raised equity capital from their balance sheets, institutional investors, and high net worth individuals to, alongside the use of leverage, acquire companies that had solid but growing cash-flows. The relationships between the investment firms that raised capital and the investors were typically structured as limited partnerships where the firm served as the general partner and the investors as the limited partners, as described by Sahlman (1990). The equity raised was pooled into investment vehicles (funds) that were managed by general partners, who had the capabilities and knowledge to invest the capital into business ventures in order to generate returns for the investors. The General Partners were compensated for this service with management fees, transaction fees and carried interest. As these funds had limited life expectancies, GP generally managed multiple funds at the same time and would start raising capital for a new fund when another was nearing its termination date.

During those decades, these funds ignored real estate, although it possessed similar characteristics, in terms of stable cashflows, to their LBOs targets, due to the high use of leverage at the time (sometimes close to the total cost) thus limiting the need for equity. In the late 1980s and early 1990s with the Savings and Loan industry collapse, lenders started limiting their exposure to real estate debt and imposing more strict lending policies, namely cutting the percentage of financing, thus forcing real estate developers to seek equity capital to continue operations. The collapse also meant that many non-performing assets were foreclosed on and were now available to be purchased at attractive prices. The assets were of varied quality ranging from development and incomplete properties to higher quality commercial real estate. Early Real Estate funds jumped at the opportunity, some with the intent of buying and holding high quality commercial assets and others of just buying and reselling development assets, although they usually both adopted the Private Equity/Venture Capital structure.

1.2.2. Definition

Apeseche (2018) describes these funds as "finite life, blind pools of capital, raised by a sponsor through a small number of sophisticated, well-endowed institutions, (pension funds, endowments, private foundations), for the purpose of being invested in real estate and real estate related opportunities". This definition remains consistent with the characteristics of early funds although early investors in the 1990s were usually high net worth individuals as opposed to institutional investor due to the later having real estate exposure thought the ownerships of firms like financial institutions, as pointed out by Linneman and Ross (2002).

1.2.3. Fund Structure

The structure has 4 basic elements: the general partner/sponsor, the limited partners/investors, the fund vehicle, and the real estate assets themselves.

The sponsor, usually a professional investment organization, is the one who will act as general partner by raising capital, investing it by acquiring real estate assets, managing these assets and later selling them, hopefully generating a positive and adequate return on that capital. The sponsor is compensated for his efforts by charging fees, mainly management fees, and receiving a carried interest dependent on performance. The sponsor may also invest part of the capital.

The limited partners or investors, provide the capital required in the partnership deal, seeking to make a return adjusted to the strategy employer by the sponsor. Although they usually don't have influence on the fund's day-to-day operations, often limited partners will hold approval right to key decision like refinancing and asset sales.

Allocating part of a portfolio's capital to real estate might have some benefits although it also comes with drawbacks according to Garay (2016):

Table 1.2.1 - Advantages and Disadvantages of including Real Estate in a portfolio

Advantages	**Disadvantages**
• Offer absolute returns	• Heterogeneity of real estate assets
• Hedge against unexpected inflation	• Lumpiness
• Diversification from stocks and bonds	• Illiquidity
• Can provide steady cashflows	
• Provide tax advantages	

The investment vehicle is chosen depending on the jurisdiction of the base country, usually depending on tax and legal reasons. The purpose of it is to receive the capital invested and hold the participation rights in the real estate assets.

Real estate assets can be categorized in a variety of ways. Garay (2016) refers the common 4 ways of categorizing real estate as:

- Equity vs debt: depending on the type of claim the owner of the right has on the asset, usually fixed for debt and residual for equity.
- Domestic vs International: depending on the location of the asset
- Residential vs Commercial: depending on the use of an asset. Residential is usually for houses and apartment which are owner-occupied. Commercial properties are intended for business use and can be subdivided into sectors like offices, retail, industrial, large apartment complexes, health-care facilities, self-storage, and hotels.
- Private vs Public: depending on the type of ownership. RE Private Equity funds are included in the Private side and on the public side are for example Real Estate Investment Trust (REITs).

1.2.4. Strategies and Expected Returns

Apeseche (2018) described four main investing strategies, Core, Core Plus, Value Added and Opportunistic, according to their measures in terms of risk, leverage, and return. These strategies are summarized in the following table. In the creation of the fund, the Sponsor defines the strategy it will employ and the expected return of the fund.

Table 1.2.2 – Characteristics of the main real estate investment

Growth	Strategy	Asset Grade	Location	Asset Needs	Leverage	Risk	Return	Net Investor Return
Low	Core	A	A	No needs	Zero to low	Low	Low but more predictable	6 – 8%
	Core +	A to B	A to B	Minor Renovations	Low	Low	Moderate (upon successful renovations)	8 – 11%
Rapid	Value Added	B to C	A to B	Renovation / Rehabilitation (may involve change of use)	Medium to Medium-high (debt for acquisition and/or renovations)	Medium	High	11 – 15%
	Opportunistic	B to D	A to C / other markets	Significant repositioning (change of use/significant CapEx)	Medium to high	High	High	15 – 20%

*net of fees, expenses and carried interest

Source: Apeseche (2018)

Assets grades will depend on the type of asset in question but generally a grade A asset is a new building with good quality finishes and in a great location. They are usually the most expensive assets, with less risk and deliver low stable returns.

A grade B would be an older building but in a good location and that could require minor renovation to be attractive to tenants.

Grade C are assets that are not in a desirable location for its use and might require substantial repairs.

Grade D are the worst category with assets in a bad location for their use and that might require a complete overhaul and/or repositioning in terms of use.

Note that an asset can start by being a Grade A and then downgrading with the passage of time.

1.2.5. Fees

Sponsors are compensated by their efforts of running a fund by receiving fees of various kinds . These are necessary to face eventual costs of investing the capital (legal costs, appraisals, commissions…), covering the costs of running the management company (staff costs, consultant fees…) or for keeping the interest of the sponsors and investors align.

Again, making a comparison with the Venture Capital funds RE funds were based on, Sahlman (1990) describes 2 common types of fees: a management fee, usually as percentage of committed capital, and a share of the profits.

Larkin, Babin and Rode (2003) mention that management fees "range from 1% to 2% of capital commitments" until 75% to 90% of capital is committed, after that the percentage is calculated on the net asset value of the fund. The percentage of the fee is usually invertedly correlated with the size of the fund. The second type of fee, described as "carried interest" is a share of the realized gains made by the fund after capital repayments to investors and "preferred interest", usually 20% of gains. Alongside this compensation, there is a mechanism to protect investors called clawback clause described as "an obligation imposed upon the GP to restore to the fund carried interest distributions in the event that later asset dispositions result in a lower total return to the limited partners".

Apeseche (2018) has a slightly different angle on the definition of sponsor fees. He lists 3 types of fees, transaction, asset management and property management, alongside expense reimbursement and a carried interest incentive. The 3 types of fees and the expenses reimbursement would fall under the definition of management fees of the authors previously mentioned.

Transaction fees include "compensation for formulating the fund, acquiring the fund's assets and/or disposing of the assets" and as mentioned by the author were droped by the industry due to generating conflicts of interest by not being linked with profits from investments. Asset Management fees are earned by the sponsor to "cover for the overheads needed by the Fund Sponsor to manage the affairs of the business", are usually in the 0.75% to 2% range of committed capital and, once again, are smaller in percentage in larger fund due to the existence of economies of scale in running a fund. Property Management fees are for managing the operations of the assets themselves and depending on the sponsor can be done inhouse or outsourced. Usually, they range from 3 to 4% of the property's revenue.

The author also mentions carried interest makes up the majority of fund's sponsors compensation and that there can be different formulas of calculating it depending on factors like fund's strategy- The majority of Value Add and Opportunity funds try to accomplish a 20% share of the fund's overall returns.

1.2.6 The Azora European Hotel & Lodging Fund

The Azora European Hotel & Lodging, F.C.R. is a Spanish Real Estate Venture Capital fund focused, as the name implies, in companies which own operating assets in the tourism sector, namely hotels, hostels and tourism complexes. It is managed by Azora Gestión, S.G.I.I.C., S.A.U., also a Spanish company specialized in real estate assets although more historically focused on residential assets and senior residence facilities.

The initiative to create a fund to invest in the hospitality sector came from the increasing interest of investors in this type of businesses. Mediterranean countries have always been blessed by good weather and lots of attractions for tourist. Benefiting from some geopolitical and macro factors, tourism has developed a lot since the crisis of 2008 and specially Portugal focused its economic recovery in this sector.

The objective of the fund is to invest mainly in sun and beach locations in Mediterranean countries like Portugal, Spain, Italy, Greece, and Croatia. However, it can also invest in secondary destination cities as long as there are already consolidated tourism destinations.

The duration of the fund is 8 years, and it can be renewed by two period of 1 year each. All investments should be done by the third year from the date of inception, but it can also be extended to the fourth and fifth year with special authorization from the Investment Committee.

The funds aim in terms of returns is 13% to 14%, but they are in no way guaranteed.

Initially the minimum amount of capital to create the fund was €600M with a Hard Cap of €785M, but since the interest of investors in the strategy was so large, it ended up raising €815M which enables the fund to invest up to a total of €1,81B of capital, after accounting the maximum consolidated Loan to Value of 55%.

The Management company charges 1,5% of invested capital as management fee.

1.3. Hotel Business

1.3.1. Concepts

The modern hotel industry can be defined as a concept that includes "all tourism entities that provide accommodation for guests and other services for touristic consumption and are organized in a variety of forms of companies that do business to meet the needs and wished of the consumer and achieve the set economic goals" (Batinić, 2016).

Hayes et al. (2013) define the travel and tourism industry as simply the "businesses designed to serve the travelling public". It includes hospitality, retail stores, transportation services and destinations sites.

According to the World Travel and Tourism Council (WTTC), in 2019 the Travel and Tourism industry represented about 10,3% of world GDP.

Orfila-Sintesa et al. (2005), position the hotel industry as a fundamental part of the tourism industry since it's the "most basic requirement of tourists after they reach their destination".

The Portuguese Decree of Law nr 186/2015, of 3rd of September, which updates the Decree of Law 39/2008, of 7th of March, establishes the legal grounds for the installation, exploration and functioning of touristic establishments in Portugal. According to this decree a touristic establishment is an establishment whose purpose is to provide accommodation services for a certain fee, and to accomplish this goal it has at its disposal the necessary infrastructures, equipment, and complementary services.

There are different types of touristic establishments which include hotel establishments, touristic apartments, rural hotels, touristic villages amongst others.

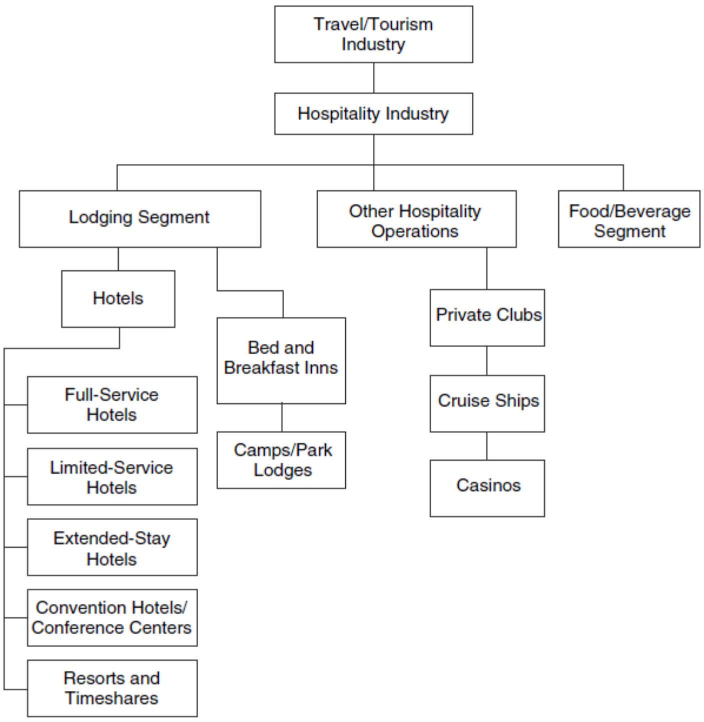
Hotel establishments are divided into hotels, aparthotels and inns and need to have at least 10 units. Hotel establishments are given a classification by the Public Institution that oversites the sector, Turismo de Portugal I.P.., from 1 to 5 stars, according to their characteristics in terms of facilities and equipment, reception desk services, cleaning and laundry services, food and beverage services and other complementary services. The requirements increase with a higher rating, by adding additional requirements to the ones required for the rating below, with 1-star and 2-star hotel needing to offer basic facilities, equipment and services; 3-star rating needing to offer medium facilities, equipment and services; and the 4-star and 5-sart needing superior facilities (parking for 20% of units, cooling systems in the units, bigger room area requirements with 14.5 sq.m and 17.5 sq.m., 5-star units need to have at least 2 suites), superior equipment (minibar, working and living area, a safe in 5-star units) and superior services and amenities (required 14-hour or 24-hour room service respectively, in-room breakfast à-la-carte and luggage transport in 5-star units).

For a 5-star rating the hotel has to have amongst other things (that are just optional in other rating) rooms with a minimum area of 17,5sq.m and at least 2 suites (rooms with living area) , a safe in the rooms, superior amenities like on demand cleaning and provided equipment such as slippers and bathrobe, 24hour reception desk service, information and reservation service, concierge service, 24-hour food and beverage service, same day laundry service.

As defined by the Portuguese Statistics Institute (INE), a hotel is a "(…) establishment that occupies a building or only an independent part of it, its facilities constituting a homogeneous whole, with complete and contiguous floors, own and direct access for the exclusive use of its users, to whom temporary accommodation services and other accessory or support services are provided, with or without the provision of meals, for a fee".

In Table3.1, Hayes et al. (2013) break down the hospitality industry into the lodging segment, other hospitality Operations and the Food and Beverage Segment. Hotels are part of the lodging segment along with Bed and Breakfast Inns and Camps/Parks and Lodges. Within hotels there are different types which will depend on the location and surroundings of the hotel, the type or types of guest they want to attract and the range of services provided to guests.

Table 1.3.1 - Composition of the Hospitality Industry



Source; Hayes et al., 2013

A Full-service hotel not only offers lodging but also a complete food and beverage services as opposed to a Limited-service hotel where these are very limited or even non-existent.

Haler (2005) defines Full-service hotels as having 250 or more rooms and adds that along with complete F&B services, these hotels can offer other services such as concierge, meeting rooms rentals, valet, health and workout facilities and others that can be found in a larger operation.

Extended-stay hotels as the name suggests market their accommodation to guest desiring longer staying period and typically have a moderate room rate due to offering limited-services.

Convention hotels and conference centers target associations, corporations or other groups of people providing not only lodging services but also meeting and exhibition spaces along with other complementary services to accommodate groups of people.

Resorts are full-service-hotel with additional attraction that make them a primary destination for leisure travels which tend to stay for longer periods.

Walker & Walker (2013) define the main characteristic to distinguish hotels, namely location, price and services offered, and add other types such as airport, casinos, boutique, and condo hotels.

The different types of hotels cater to different market segments and it's crucial for them to define their target audience in relation to revenue as the capacity/willingness to spend more on a stay varies across the segments.

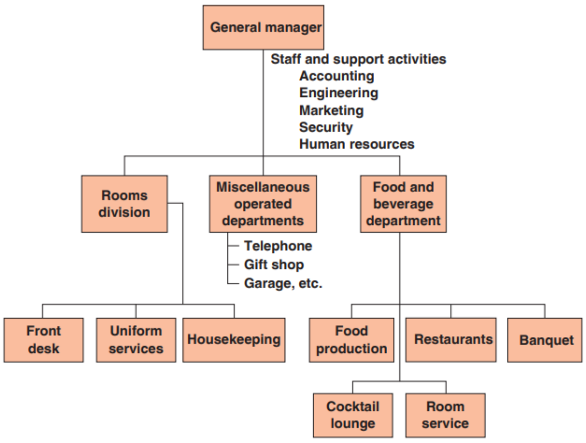
Hales (2005) mentions three main ways to segment the hotel market:

- Weekday vs weekend: different customers book a hotel at different time depending on their reason for a stay.
- Business/pleasure: companies usually are the ones who pay for the expenses of business travelers while people travelling for pleasure usually are the ones paying for their expenses.
- Transient/group and contract: segments the market by defining who is travelling and the reason why they are travelling. Transient customers are usually individuals with sort stays and their willingness to spend differ on the reason of the stay. Group customers represent a greater volume of rooms book thus their rate tends to be lower. Contract is when they number of rooms, nights and rate is previously defined between the hotel and the costumer.

Hayes et al. (2013) mentions that the room rates paid by business travels are one of the highest a hotel can receive and that leisure travelers can make up to 100% of guest of a hotel depending on the location and stay for longer periods of time.

1.3.2. Departments and Operations

Table 1.3.2 – Basic departmental structure of a hotel



Source: Barrows et al., (2011)

To provide all the necessary services to guest, hotels are organized in several departments depending on the types of services offered by the establishment.

Barrows et al. (2011) outline a basic structure of a hotel where the most important departments such as the room department, which can be broken down into subdivisions such as front desk and housekeeping, the food and beverage department and other miscellaneous departments, are supervision by the General Manager of the hotel. More upscale hotels might also include other departments such as Spa, event and conferences, and marketing and sales.

Besides these departments, there are also other complementary to the operation such as accounting, maintenance and human resources which are essential to the operation but can be outsourced to a third-party.

1.3.3. Types of Ownership

Walker & Walker (2013) define the development of a hotel as very capital-intensive enterprise which not only required the construction of the building and the fit out of the hotel but also feasibility studies to estimate the future operational results which will support the financial sense of the project.

Younes & Kett (2007) identify development, operating and obsolescence/exit risk as the three sources of risk during a hotel's life cycle. Development risk increases with the complexity of the building, being resorts and high-end hotels the ones who carry riskier developments. Operating risk is highest in the first years of the operation, and it comes mainly from two factors crucial for a positive profitability: revenue generation and fixed costs. The obsolescence/exit risk is tied to the ability for the investor to exit the investment or extend the economic life of the asset. Resorts and luxury hotels faces a lower risk compared to limited-services hotels due to high initial planning and better prospects of return on the capital expenditures required to improve the property.

With such risk involved in such a complex process, it is usual that these risks are diversified across multiple entities with different ownership and management structures.

1.**3.3.1. Owner-operated**

When the investor is also the manager of the hotel, its is called an owner-operated hotel. These hotels can have different types of owners ranging from a small family-owned hotel to a large multinational chain which also owns the properties it operates. In these cases the investor carries both the real estate risk and the operating risk of the property.

1.**3.3.2. Franchising**

Walker & Walker (2013) refer to the International Franchising Association to define franchise as "a method of distributing products or services involving a franchisor, who establishes the brand's trademark or trade name and a business system, and a franchisee, who pays a royalty and often an initial fee for the right to do business under the franchisor's name and system."

In the hospitality industry this translates to a faster way of expansion for brand due to leveraging other people's money instead of its own capital or third-party financing and according to Haynes et al. (2013) it creates a "network of independent business owners sharing a brand name"

Haynes et al. also note that although the terms of a franchise agreement are negotiable, the fee on average can range from 3 to 15 percent of room revenue.

1.**3.3.3. Management Contract**

Management Contracts are agreed between a hotel operator and the owner of the hotel facilities and establish that the first is in charge of managing the day-to-day operations of the hotel but the facilities are developed and owned by the second. This arrangement benefits the operator has it no longer requires large amount of capital to develop the building, but it can still expand its brand and conduct its business and to the owner of the building which has no desire or skill to run the operation but still want to be exposes to the hotel industry.

The contract specifies a certain period in which the property is managed by the operator, usually five, ten or twenty years and management fees which usually depend on a percentage of gross revenues (usually 2%) and/or a percentage of operating profit (also 2%). Sometimes, fees can have a combination of fixed and variable amounts with some types having a minimum amount and a share of revenue or profit after certain targets are met. Walker & Walker (2013)

Rivera (2013) corroborates this incentive structure mentioning that is often composed of two parts: a base fee of 2% to 3% of total revenue plus an incentive fee of 10% to 20% of cash flows past a certain threshold of performance.

The most common facilities owner in these types of contracts are large insurance companies, Real Estate Investment Trust, funds, or companies with similar structures which want to be exposed to the hotel business. (Hoteliers, 2013)

Hayes et al. (2013) present both the pros and cons of this type of agreement:

Figure 1.3.3 – Management contract pros and cons

Pros	Cons
• Improved management quality. • Documented managerial effectiveness is available • Payment for services can be tied to performance • Partnership opportunities are enhanced.	• The owner cannot generally control selection of the on-site general manager and other high-level managers. • Talented managers leave frequently • Conflict of interest between owners and the management companies • The costs of management company errors are borne by the owner

Source: Hayes et al. (2013)

1.**3.3.4. Other structures**

Other structures are also available to independent hoteliers such as referral associations where independent owners join in a group and share their reservations system, brand, logo or slogan and so on, with the benefits being similar to those of franchise agreements. (Hayes et al, 2013)

1.**3.4, Profit and Loss statements**

Hospitality managers work primarily with the P&L statement. It measures the financial performance of the department, hotel, or restaurant and is used as a management tool to improve operations. (Haler 2005).

Barrows et al., (2011) provide an example of a hotel P&L statement for a full-service hotel with reference percentages for each selected item.

Figure 1.3.4 – Selected P&L items and ratios for a full-service hotel

REVENUE	
Rooms	67.5%
Food and Beverage	27.2%
Other Operated Depts.	3.3%
Rentals and Other Income	2.0%
Total Revenues	**100%**
DEPARTAMENTAL EXPENSES	
Rooms	26.0%
Food and Beverage	73.9%
Other Operated Departments	61.8%
Departamental Income	**60.3%**
UNDISTRIBUTED OP. EXPENSES	
Administritive and General	9.0%
Sales and Marketing	8.0%
Property Operations and Maintenance	4.8%
Utilities	4.1%
Total undistributed expenses	**25.9%**
Gross Operating Profit (GOP)	**34.4%**
Management Fees	3.2%
Income before fixed charges	
FIXED CHARGES	
Property and other Taxes	3.7%
Insurance	1.5%
Net Operating Income (NOI)	**26.0%**

Source: Barrows et al., (2011)

Following this structure is also possible to add other items that make sense for a specific operation. In this case there are management fees, but it could include franchising fees or rent.

Other items such as the Furniture, Fixture and Equipment Reserve (FF&E) described by Hayes et al., (2013) as “funds set aside by ownership today for the future “furniture, fixture, and equipment” replacement needs of a hotel”. This reserve usually represents 1% to 5% of Gross Revenue and is crucial when renovations, both minor and major are needed.

1.3.5. Hotel KPIs

According to Hales (2005), the three most common measures of success for a company are Customer Satisfaction, Employer Satisfaction and Profitability and Cash Flow. Performance is measured based on these goals, usually by keeping a score depending on the type of goal and comparing it to a comparable period.

Key Performance Indicators (KPIs) help define and measures the organizational goals, which is fundamental to any ongoing organization and the success/ sustainability of any company. KPIs are important for companies that aim to implementing a performance management system based on measurable aspects of organizational functions (Asih, Purba and Sitorus (2020)).

According to Parmenter (2015) there are three major benefits of ascertaining an organization's critical success factors and the associated performance measures: (1) A clarity of purpose, from aligning the daily staff actions to the organization's critical success factors, (2) Improving performance through having few and more meaningful measures, and (3) Creating wider ownership, empowerment, and fulfilment at all levels of the organization.

1.3.5.1. Occupancy Rate

Occupancy rate: The ratio of guest rooms sold (or given away) to the number of guest rooms available for sale in a given time period and expressed as a percentage. (Hayes et al., 2013)

Occupancy Rate = Total Rooms Sold/ Total Rooms Available:

Haler (2005) mentions that the industry average is in the low 60%'s.

1.3.5.2. Average Daily Rate (ADR)

As the name suggests is the average of the room rates charged by the hotel during a specific time interval. It is also sometimes referred to as Average Room Rate (ARR).

Haler (2005) defines the main factors influencing room rates:

- Rates of their direct competition
- Age of the hotel, including recent renovations and improvements
- Perceived value of the products and services delivered by the hotel
- Location
- Cost of the hotel and the return on investment (ROI) required by investors.
- Any competitive advantages that the hotel might have over its competition.

Average Room Rate = Total Room Revenue / Total Rooms Sold

1.3.5.3. Revenue per Available Room (RevPAR)

RevPAR combines the first two indicators, ADR and Occupancy, to measure an hotel's ability to sell the most rooms and to achieve the highest room rate. (Hayes et al., 2013)

According to Haler (2005), it's the best measurement of total room revenue maximization as it requires the hotel to optimize simultaneously the combination of rooms sold and room rate to achieve the best level of RevPAR.

RevPAR = Occupancy Rate x Average Room Rate

Or

RevPAR = Total Room Revenue / Total Available Rooms

1.3.5.4. Revenue Per Occupied Room (RevPOR)

This concept measures the total revenue generation, which includes all departments, per each occupied room.

RevPOR= Total Revenue/ Occupied Room

1.3.5.5. Gross Operating Profit per Available Room (GOPPAR)

The previous indicators were concerned with revenue generation, but the operation still needs to be profitable, a good measure to evaluate this aspect is the Gross Operating Profit per Available Room.

GOPPAR = Gross Operating Profit / Rooms Available to Sell

1.3.6. Competitive Set

As a location might have other hotels, knowing the competitors is important for the manager of the operation to define the positing and strategy of the hotel. A competitive set (Comp Set) is a group of competitor hotels which have similar characteristics to the one under study.

A STAR Report is a report where KPIs such as occupancy rate, ADR, RevPAR of an hotel unit are compared against its comp set in various timeframes. This report is very important for the various stakeholders of an operation as it informs on the performance of the property against is main competitors and can aid in certain processed such as an appraisal, a sale or an acquisition of a property. (Hayes et al., 2013)

1.4. Hospitality Market Overview

1.4.1. General Economic Situation

On the 18th of March 2020, the Portuguese Government declared the Emergency State due to the rising number of Covid-19 cases in the country, which increased to around 640 in just under three weeks. The Government imposed measures to stop the spread which severely restricted the circulation and gathering of people with a big impact on economic activity, especially on services which involved people interaction. The tourism industry was one of the most affected due to a sharp drop in international travel brought by travel bans and uncertainty of travelers, and also in domestic demand due to restriction on circulation between municipalities and the preference for remote work (leading to less in person meetings and thus business travel). Hotel establishment also had to restrict their occupation levels to reassure guests that it was safe to stay at their properties.

The following summer, although with some relief on restrictions, was very difficult for the tourism industry with more impact on regions whose economies are more dependent on it.

The hope of a return to normality increased with the development of a vaccine which was first given in Portugal at the end of December. This hope was short lived because the number of cases and deaths spiked again in the two weeks following the New Year festivities, making way for a 3rd wave of the pandemic and consequent new restrictive measures.

The situation began to stabilize again in February and in the last report of that quarter. Published on the 26th of March, the National Health Institute reported around 820 thousand total confirmed cases in the year since it all began.

Around that time, the Portuguese Public Finance Council (CFP) published its 2nd report of the year on the economic perspectives for the 2021-2025 period. It was to no surprise that the National Statistics Institute (INE) estimated a drop in GDP of 7.6% for the year of 2020. The CFP projected that GDP would also contract on the 1st quarter of 2021 due the 3rd wave of cases but with the vaccination campaign underway, the economy would grow 3.3% overall in the year of 2021 and make a full recovery during 2022, with an expected GDP growth of 4.9%. Other macroeconomic indicators such as exports, imports, private and public consumption would also follow the same trend a partial recovery in 2021 followed by the surpassing of pre-Covid levels in 2022. According to the same report, the Consumer Price Index (CPI) suffered a decrease of 0.1% in 2020, with the following evolution for the forecasting period:

Table 1.4.1 – CFP CPI Projections for 2021 - 2025

2021	2022	2023	2024	2025
0.8%	1.4%	1.6%	1.7%	1.7%

Source: CFP (2021)

1.4.2. Tourism in Portugal

Until the arrival of the pandemic in 2020, Portugal had had a growth in tourism for the past decade due to good fundamentals such as good weather, proximity to the European capitals, good cuisine and winery, variety and landscapes, rich history and culture, and other factors such as safety, affordability and geopolitical., As a destination it had been growing in international recognition, not only in historical destinations like Algarve but also spread across the country as a whole.

It is important to look at the evolution that happened in the recent period of 2015-2019 and do not give much importance to the numbers in 2020 due to the influence of the pandemic and the hope that tourism will recover as the threat weakens. So, the analysis on this chapter will focus more ont the 5-year period before the pandemic than in the year 2020.

Table 1.4.2 – Tourism Number in Portugal from 2015-2020

Tourism Numbers | Portugal | 2015 - 2020

Year	2015	2016	2017	2018	2019	CAGR	2020
Guests	19,161,180	21,252,625	23,953,765	25,249,904	27,142,416		10,430,600
Change (%)		*11%*	*13%*	*5%*	*7%*	*9%*	*-62%*
% Hotels and Similar	*85%*	*84%*	*83%*	*81%*	*80%*		*79%*
% international	*58%*	*59%*	*61%*	*61%*	*60%*		*37%*
Overnight Stays	53,074,176	59,122,640	65,385,210	67,662,103	70,158,964		25,798,299
Change (%)		*11%*	*11%*	*3%*	*4%*	*7%*	*-63%*
% Hotels and Similar	*88%*	*87%*	*85%*	*84%*	*83%*		*81%*
% international	*70%*	*71%*	*72%*	*71%*	*70%*		*47%*
% Stays jul-set	39%	38%	37%	37%	36%		44%
Average Stay (days)	2.77	2.78	2.73	2.68	2.58		2.47
Total Revenues	2,627,741 th€	3,103,755 th€	3,681,207 th€	3,986,553 th€	4,295,814 th€		1,445,682 th€
Change (%)		*18%*	*19%*	*8%*	*8%*	*13%*	*-66%*
% Hotels and Similar	*91%*	*91%*	*90%*	*90%*	*88%*		*86%*
Nr Companies*	147	153	165	179	198		166
Change (%)		*4%*	*8%*	*8%*	*11%*	*8%*	*-16%*
EBITDA Margin (%)*	23%	22%	30%	26%	28%		-27%
Change (p.p)		*-1%*	*8%*	*-4%*	*2%*		*-55%*
Prime Yields - Lisbon**	-	-	-	-	7%		6.75%

**for medium size companies with CAE 52111 (hotels with restaurant)*

*** for Prime Hotels under a managment contract*

Sources: INE, Travel BI, Banco de Portugal, Savills

The number of guests in all types of accommodation (hotels and similar, short-rentals and rural tourism) increased by almost 8 million in just five years, almost the number of the entire population of the country, representing a CAGR of around 9%. The majority of guest are non-residents in the country and over 80% of total guests stay in hotel and similar establishments.

Overnight stays also naturally increased as a consequence of more guests although at a slower but still good CAGR of 7%. The importance of hotel and similar and international tourism is even more evident here, as the share oof these of the total number is even greater than in guests, with hotels reaching 83% and international guests representing 70% of stays.

The average number of a stay as actually decrease in the period, going from 2.77 days to 2.58. The weight of the summer months in terms of overnight stays also decreased but remained still high with 36% in 2019.

With more guests and nights sold, revenues grew at a CAGR of around 13% reaching €4,925 million in 2019, with hotels and similar generating 88% of this amount, the low percentage in this period.

According to data from Banco de Portugal, the number of medium size companies (companies with more than 50 employees and revenues/balance sheet exceeding €10million, and less than 250 employees and €550 million or a balance sheet greater than €43 million) classified with the activity code for *hotels with restaurant* (CAE 52111) increased by almost 50 in the 5-year spam. The EBITDA Margin of these companies did not follow a trend, being as high as 30% and as low as 22%, settling at 28% in 2019.

The yield (Net Operating Profit/Market Value) for a prime hotel in the capital was around 7%, as reported by Savills (2021).

The 2020 numbers were the lowest in the 6-year period as expected, with a higher percentage of stays happening in the summer with the ease of restrictions and cases, Hotels had a bad year due to being closed or under occupancy restrictions but with the hope of it being a short-term shock, the yield compressed as many hotel owners did not want to sell at a discount.

Table 1.4.3 – Hotel and similar establishments Numbers in Portugal per Region from 2015-2020

Hotels and similar | Portugal per Region | 2019

Year	Lisbon	Algarve	North	Center	Madeira	Alentejo	Azores	Portugal
Guests	6,459,771	4,485,614	4,380,661	3,217,043	1,302,584	1,104,734	643,634	**21,594,041**
	30%	*21%*	*20%*	*15%*	*6%*	*5%*	*3%*	***100%***
Overnight Stays	14,616,402	19,211,815	8,043,996	5,508,845	6,739,297	1,977,167	1,896,055	**57,993,577**
% of Total	*25%*	*33%*	*14%*	*9%*	*12%*	*3%*	*3%*	
% Hotels	*90%*	*43%*	*95%*	*91%*	*69%*	*69%*	*90%*	***72%***
% Aparthotel	*6%*	*25%*	*2%*	*3%*	*n.a.*	*n.a.*	*n.a.*	***10%***
% Overnigh Stays Jul-Set	30%	43%	33%	36%	31%	38%	38%	**36%**
Average stay (days)	2.3	4.3	1.8	1.7	5.2	1.8	2.9	**2.70**
Number of Units	338	409	419	381	144	132	100	**1923**
% of Total	*18%*	*21%*	*22%*	*20%*	*7%*	*7%*	*5%*	***100%***
% Hotels	*86%*	*40%*	*91%*	*92%*	*61%*	*77%*	*75%*	***75%***
Number of Keys	31,573	46,182	22,032	20,118	14,636	6,466	5,207	**146,214**
% of Total	*22%*	*32%*	*15%*	*14%*	*10%*	*4%*	*4%*	***7603%***
% Hotels	*89%*	*44%*	*95%*	*91%*	*68%*	*64%*	*89%*	***73%***
Average nr keys/unit	*93*	*113*	*53*	*53*	*102*	*49*	*52*	*76*
Total Revenue th€	1,216,794 th€	1,153,929 th€	527,571 th€	286,503 th€	380,229 th€	125,931 th€	104,512 th€	**3,795,470 th€**
% of Total	*32%*	*30%*	*14%*	*8%*	*10%*	*3%*	*3%*	***197372%***
% Hotels	*90%*	*58%*	*94%*	*90%*	*74%*	*63%*	*90%*	***78%***
RevPar Hotels	82.75	71.02	50.86	27.43	50.96	37.34	42.86	**58.18**
Occ. Rate Hotels	76%	63%	65%	47%	71%	55%	62%	**65%**

Sources: INE, Travel BI

The distribution of touristic activity in the hotel and similar sector is not equal across the country's seven regions, with the majority of guests choosing the Lisbon Metropolitan Area and Algarve has a destination in 2019. The regions outside the top four in terms of guests (Center, Alentejo, and the Madeira and Azores Archipelagos) together welcomed almost as much guest as the Lisbon MA alone.

In terms of overnight stays, the top three remain the same but now Algarve leads the ranking. Madeira doubles its weight in overnight stays (12%) compared to guest (6%). In terms of distribution with this sector, in nearly all regions, hotels represent more than 69% of the overnight stays with the exception being Algarve due to Aparthotels, Touristic Apartments, Touristic Villages and Inns having more expression in this region.

The shift in the region's ranking between guests and overnight stays can be explained by the average stay length in each region, with Madeira topping the ranking with 5.2 days, followed by Algarve, Lisbon, and Azores. The remaining three regions all had an average stay of less than two days.

On the supply side, the ranking by number of units is composed by the same top three as guests and overnight stays but now the North tops the raking. Hotels make up more than 75% of unit in all regions except Algarve and Madeira.

In terms of number of keys, the distribution follows more or less the distribution of overnight stays, with again Algarve topping the ranking with also the most keys per unit, followed by Lisbon and the North. In terms of keys per unit, Madeira is second followed by Lisbon.

All this activity generated around €3,795 million in total revenue, with the top three regions generating around three quarters and hotels again capturing most of it except for in Algarve, where it is distributed across the other types of establishments besides hotels with a highlight to aparthotels.

Looking at the KPI's, Lisbon tops the list for both RevPar and Occupancy Rates, with only 2 regions surpassing the average for Portugal in terms of RevPar, Lisbon and Algarve, and Occupancy Rate, Lisbon and Madeira.

From the analysis, we can conclude that the tourism activity is still concentrated in some regions of the country but with the rise of international popularly of some regions, all the other could benefit has guests want to explore more of what the country has to offer.

1.4.3. Recent Hotel Transactions

In recent years there have been a few transactions involving hotels in Portugal, even though the pandemic, it remains attractive to invest in the Portuguese tourism expecting a rebound of the sector and the continuation of the trend of the pre-pandemic years

Table 1. 4.4 – Recent Hotel Transactions

Asset	Year	Location	Seller	Buyer	Category	Public Price	Nr Keys	Price/Key
Aqualuz Hotel	2020	Lagos	Sonae Capital	Imofumento	4*	21 M	177	117,000
10-hotel portfolio: Hoteis Real	2020	Several	Bernardino Gomes Group	Palm Invest	4* - 5*	300 M	1384	217,000
The Lake Resort	2020	Vilamoura	Oxy	HI partners	5*	50-55 M	192	273,000
3 -hotel Portfolio: Tivoli Avenida, Avani Av. Liberdade, Tivoli Oriente	2019	Lisbon	Minor Hotels	Invesco	4/5*	313 M	704	445,000
InterContinental Palácio das Cardosa	2018	Porto	Solitaire Hotels	GCP Hospitality	5*	55 M	105	524,000
Penha Longa Hotel & Resort	2018	Sintra	Deutsch Bank Group	Carlyle Group/Explorer	5*	100 M	194	515,000
Tivoli 6-hotel Portoflio remaining	2016	Several	Espirito Santo Group	Minor Hotels	4* - 5*	78 M	1033	76,000
Tivoli 4-hotel portfolio: Lisbon, Marina Vilamoura, Marina Portimão Carvoeiro	2015	Lisbon and Algarve	Espirito Santo Group	Minor Hotels	4* - 5*	118 M	1178	100,000

Sources: media

The Price per Key in the selected transactions varies greatly, from €76,000 to €524,000, which is normal considering all variables that affect a hotel's value (location, condition, year of transaction, etc.) and also the timing, context of the transaction and the negotiation capabilities of the parties involved.

1.4.4. Tourism in Algarve

Having already analysed where the region of Algarve stands in terms of comparision between regions in 2019, it time to review the evolution from 2015 to that point and how the pandemic affected the number of 2020.

Table 1.4.5 – Tourism Numbers in Algarve from 2015-2020

Tourism Numbers | Algarve | 2015 - 2020

Year	2015	2016	2017	2018	2019	CAGR	2020
Guests	3,842,267	4,189,237	4,517,862	4,732,165	5,064,067		1,991,835
Change (%)		*9%*	*8%*	*5%*	*7%*	*7%*	*-61%*
% Hotels and Similar	*93%*	*92%*	*90%*	*89%*	*89%*		*89%*
% international	*70%*	*72%*	*72%*	*71%*	*71%*		*46%*
Overnight Stays	17,256,396	19,005,838	20,207,151	20,443,247	20,900,495		7,890,711
Change (%)		*10%*	*6%*	*1%*	*2%*	*5%*	*-62%*
% Hotels and Similar	*95%*	*94%*	*93%*	*92%*	*92%*		*92%*
% international	*76%*	*78%*	*79%*	*77%*	*76%*		*52%*
% Stays jul-set	46%	44%	43%	43%	43%		58%
Average Stay (days)	4.49	4.54	4.47	4.32	4.13		3.96
Total Revenues	780,067 th€	941,039 th€	1,078,233 th€	1,144,530 th€	1,225,746 th€		461,563 th€
Change (%)		*21%*	*15%*	*6%*	*7%*	*12%*	*-62%*
% Hotels and Similar	*96%*	*95%*	*95%*	*94%*	*94%*		*93%*
FAO International Arrivals	3,014,459	3,604,726	4,122,744	4,074,737	4,250,066		999,912
Change (%)		*20%*	*14%*	*-1%*	*4%*	*9%*	*-76%*

Sources: INE, Travel BI

Algarve is an already established "sun and beach" location among both national and international guests, especially English and Spanish. The number of guests grew at a CAGR around 7%, surpassing 5 million guests in 2019, with hotels and similar losing share but still around the 80% mark. The weight of international guests was around 80% during the period.

In terms of the number of overnight stays it grew at around a CAGR of 5% to 20.9 million in 2019, 2 p.p. below guests, meaning that the average stay in days also decreased in the period. The share of hotels and similar and international guests in this number also increase comparing to their share in guests.

Both the growth of guests and overnight stays is below the average for Portugal, which can be explained by the tourism number in Algarve already being higher than Portugal's average. Although the seasonality effect in more felt in Algarve than in Portugal overall with 43% of guests staying in the summer months versus 36% for Portugal, for the year of 2019.

Total Revenues almost hit €1,230 million, with a CAGR of 12% in the period. Hotels and similar generated around 94% of this revenue in 2019.

The better way for international guests, especially from the most prevalent European capital to get to the Region is by plane with most of capital being between a two and four-hour flight to Faro Airport..

The number of international arrivals of passengers to airport grew at a CAGR of around 9%, reaching around 4.25 million in 2019.

The year of 2020 had the expected effect in numbers, with highlight to the rise of overnight stays in the summer with the ease of restrictions and the drop of 76% of international arrivals. To the Airport.

In the latest quarterly report (Q4/2020) published by European Travel Commission (ETC), the travel industry will start to recover in 2021, following increased travelers' confidence with the distribution of the vaccines, and in an upside scenario foresees international arrivals surpassing pre-pandemic levels by 2023, boosted also by the pent-up demand built up during the lockdowns.

1.4.5. Hotels in Algarve

Finally, it is also important to know how middle and upper scale hotels did in the period of 2015-19 and the effect of 2020 had on their numbers.

In the region, in 2019 there were 66 4-star hotels, a growth of 16 units compared to 2015, with had in total 10,073 keys and an average size of 152 keys per unit. The number of guests and overnight stays in this category grew at CAGR of 9% and 6% respectively, which means that the demand grew more than the supply of rooms in this period. In terms of Total Revenues, they exceeded 290 million in 2019, having grown at a CAGR of 12% in this period. Room Revenues represent around 80% of Total Revenues

In terms of hotel KPI's, RevPar grew for the first years of the period and stabilized at €6, with the occupancy rate stabilizing at 65.47%.

This was a positive period for hotels in this category, with more opening and new keys to respond to the rising demand, generating more income. With the pandemic, 9 hotels closed down and the category was severely affected with a drop in every indicator.

Table 1.4.6 – 4-Star Hotel Numbers in Algarve from 2015-2020

4-Star Hotels | Algarve | 2015 - 2020

Year	2015	2016	2017	2018	2019	CAGR	2020
Number	50	53	56	61	66		57
Keys	8,508	9,124	9,211	9,663	10,073		8,628
Change (%)		*7%*	*1%*	*5%*	*4%*	*4%*	*-14%*
Guests	775,691	907,931	949,852	1,007,364	1,089,850		417,284
Change (%)		*17%*	*5%*	*6%*	*8%*	*9%*	*-62%*
Overnight Stays	3,457,849	3,913,912	4,170,122	4,202,979	4,380,947		1,531,535
Change (%)		*13%*	*7%*	*1%*	*4%*	*6%*	*-65%*
Total Revenues	181,961 th€	223,084 th€	250,194 th€	271,495 th€	290,573 th€		99,084 th€
Change (%)		*23%*	*12%*	*9%*	*7%*	*12%*	*-66%*
*% of Total Revenues**	*81%*	*86%*	*86%*	*83%*	*82%*		
RevPar	47	58	64	64	64		35
Change (%)		*21%*	*11%*	*0%*	*1%*	*8%*	*-46%*
Occ	62.30%	66.20%	67.90%	65.96%	65.49%		29.36%

**estimation based on formula: Room Revenue = Keys x RevPar x Days in Year*

Sources: INE, Travel BI

In the upper scale category of 5-star, there were 29 units in 2019, 6 more than in the beginning of the period, and with them 1,268 more keys. The average size of a unit was 203 keys, 51 keys more than its 4-star counterparts. The number of guests and overnight stays grew at 6% and 8% respectively, with the number of keys following this growth on average with also 6% CAGR.

Total Revenues reached €297.3 million in 2019, representing an average growth of 13% per year. Room revenues accounted for around 72% of total revenues, a difference of 10 p.p. to 4-star hotels.

Table 1.4.7 – 5-Star Hotel Numbers in Algarve from 2015-2020

5-Star Hotels | Algarve | 2015 - 2020

Year	2015	2016	2017	2018	2019	CAGR	2020
Number	23	24	26	27	29		26
Keys	4,632	4,911	5,249	5,276	5,900		5,047
Change (%)		*6%*	*7%*	*1%*	*12%*	*6%*	*-14%*
Guests	482,278	496,098	508,334	510,552	608,540		241,102
Change (%)		*3%*	*2%*	*0%*	*19%*	*6%*	*-60%*
Overnight Stays	1,744,687	1,954,527	2,130,211	2,124,166	2,369,427		918,527
Change (%)		*12%*	*9%*	*0%*	*12%*	*8%*	*-61%*
Total Revenues	181,943 th€	225,735 th€	264,459 th€	270,987 th€	297,322 th€		114,567 th€
Change (%)		*24%*	*17%*	*2%*	*10%*	*13%*	*-61%*
*% Room Revenue**	*75%*	*72%*	*72%*	*70%*	*72%*		
RevPar	80	90	99	99	99		54
Change (%)		*12%*	*10%*	*0%*	*0%*	*5%*	*-46%*
Occ	58.00%	59.40%	57.50%	56.43%	59.74%		27.03%

**estimation based on formula: Room Revenue = Keys x RevPar x Days in Year*

Sources: INE, Travel BI

1.5. Assets Under Analysis

The assets involved in the transaction are the Tivoli Carvoeiro and Tivoli Marina Vilamoura, 2 sun & beach resorts located in Algarve and operated under the brand Tivoli Hotels & Resorts. Both are 5-star resorts, with a combined 630 keys, and both are iconic in their locations although the one in Vilamoura takes the spotlight with superior facilities and more popular location.

Both assets focus on leisure tourism but also offer spaces for meetings, events and special occasions to counter the influence of the seasonality in Algarve.

1.5.1. The Tivoli Hotel and Resorts Brand

Tivoli Hotels and Resorts is a renowned Portuguese hotel brand that currently operates 15 units, with 10 of them in its original country, 2 in Brazil and 3 in Qatar. It has also announced an expansion into China with a brand-new hotel in the city of Chengdu, the capital of the Sichuan province.

The brand, having previously started as a small inn in 1926, opened its first hotel in 1933, Tivoli Avenida da Liberdade, in one of the best-known avenues of the Portuguese capital that also gave name to hotel itself. In 1955, it opened a hotel in a XVIII century palace in Sintra, Tivoli Palácio de Seteais, and in 1999 it expanded to the Algarve coast with a resort in Carvoeiro, Lagos Portimão and Vilamoura. In 2006 it started its international expansion with a unit in the Brazilian city of Bahia with Tivoli Ecoresort Praia do Forte, and in 2009 with one in Sãp Paulo named Tivoli Mofarrej São Paulo.

In 2015/2016, and due to the collapse of the Portuguese financial group Espirito Santo, the brand was acquired by Minor Hotel Group (MHG), a Thai company focused on hospitality, restaurants, and lifestyle business which owns and/or operates over 520 hotels around the globe. The new owner brought along investment in renovations in the existing portfolio of hotels and an expansion into the Middle East, with 3 units in Qatar. In 2018, the brand was included in the NH Hotel Group's Portfolio due the takeover of this publicly traded Spanish hotel group by Minor International.

The Brand was recognized in 2019 by Travel + Leisure, in its annual readers survey, as being in the Top 5 Hotel Brands in the World with a 4th place in the ranking and described as being "excellent for both travel and leisure".

1.5.1. Tivoli Marina Vilamoura Resort

1.5.1.1. Location

Tivoli Marina Vilamoura is a 5-start resort located in Vilamoura's Marina, in the municipality of Loulé, part of the Algarve region of Portugal.

Vilamoura is a very popular touristic complex known for its marina, golf courses, beaches, nightlife, and luxurious lifestyle. It's part of Algarve's Golden triangle alongside two other luxurious resorts, Quinta do Lago and Vale do Lobo. The area is about 1,700 hectares with a beachfront of about 1.5km, and is well developed with luxury hotels, villas and apartments, as well as the supporting infrastructures and attractions sites like commercial areas, golf courses, an international school, roman ruins and an equestrian center.

In terms of accessibilities the nearest airport is Faro International Airport about 30 minutes away by car, with other options being Lisbon's airport at 2hr 30min and Seville's airport at 2hr 17 min. The access to Lisbon is made by motorway A2, taking 2hr 30min, and the Spanish border is about 50 minutes way through motorway A22. The nearest train station is Loulé, about a 15-minute drive from the resort, and a train ride from Lisbon takes about 3hr.

According to INE, in 2020 the Loulé municipality had 53 hotels and similar establishments (15% of Algarve number) , with around 5,950 keys. In comparison with 2019, the number of establishments decrease by 7 and the number of rooms by around 870.

In 2019, the municipality received around 703 thousand guests with over 2.82 million overnight stays (14% percentage of Algarve), with around 94% of stays being in hotel and similar establishments generating total revenues of around €215 million for these establishments.

1.**5.1.2. Asset Description**

The resort started operating under the Tivoli brand in 1999, having already been inaugurated under a different brand over a decade prior, and is located in a privileged position at the entrance of the marina with access to the beach.

It has 383 keys with several room typologies and suites. Rooms have areas of 31 sq.m except for the family options and offer several equipment such as cooling systems, expresso makers, Wi-fi and terraces. The rooms come in Superior, Deluxe, Premium Premium Purobeach, Family and Adjoining Family, all with the option of the view between the sea or the marina. The suites come in Junior, Junior with Sea View, Junior Purobeach, Vilamoura and Presidential.

The hotel offers several food options with 4 restaurants and 4 bars. In Chilli, guest can have their breakfast in buffet or à la carte. Peper's Steakhouse is specialized in meat dished and also offers fresh fish and seafood, all with a marina view. Oregano offers Italian cuisine in a Roma style patio. Purobeach Beachfront offers Mediterranean cuisine in a beach setting. The bars include The Argo, the D'Azur, Glee Boutique Café and the exclusive Purobeach Poolside. The last one is reserved to guests which chose the Purobeach typology (although other guests may reserve a sunbed upon request) and it offers premium service in a poolside environment. The resort has 2 other outside pools for guests to enjoy and a spa facility. The spa has 11 treatment rooms, with an exterior terrace and jacuzzi, a fitness center and an indoor pool.

Finally, the resort also includes the Algarve Congress Centre, whose renovation was concluded in 2018 and now offers flexible spaces with 27 rooms and a capacity for events and conferences with 3,000 people. Besides the rooms, guest can also enjoy the terrace and rooftop as well as other event spaces in the hotel premises. The space is not only for corporate clients with the hotel also mentioning the availability to other events such as private parties and weddings.

1.5.2. Tivoli Carvoeiro Resort

1.5.2.1. Location

Tivoli Carvoeiro Resort is a 5-start resort located in Carvoeiro, in the municipality of Lagoa, part of the Algarve region of Portugal.

Carvoeiro is a traditional resort village near the coastline with its beaches, cliffs and natural scenery. The town is a good beach location for guest who seek a calmer and family-friendly destination, with other attractions like golf courses, wineries, hiking trails, boat tours, and nearby water/theme parks like Slide and Splash.

In terms of accessibility, the nearest airport is Faro International Airport about 45 minutes away by car, with other options being Lisbon's airport at 2hr 30min and Seville's airport at 2hr 40min. The access to Lisbon is made by motorway A2, taking 2hr 42min, and the Spanish border is about 1h and 10 minutes way through motorway A22. The nearest train station is in Ferragudo, about a 20-minute ride from the resort, and a train ride from Lisbon takes about 3hr and 30 minutes.

According to INE, in 2020 the Lagoa municipality had 37 hotels and similar establishments (10% of Algarve number), with around 4,180 keys. In comparison with 2019, the number of establishments decrease by 1 and the number of rooms by around 15.

In 2019, the municipality received around 422 thousand guests with over 1.68 million overnight stays (8% percentage of Algarve), with around 97% of stays being in hotel and similar establishments generating total revenues of around €128,4 million for these establishments.

1.5.2.2. Asset Description

The resort started operating under the Tivoli brand after the expansion of the brand into Algarve in 1999. It sits on top of a cliff overlooking the Atlantic Ocean and with direct access to the Vale do Covo beach.

Before the renovation works, the hotel counted with 293 rooms and a 4-star classification but after the investment made by the recent owner, it is now a 248-keys 5-star resort, with renewed decoration and better amenities such as the introduction of 3 new restaurants with different cuisine options, a pool bar, a sky bar, a spa and fitness center. The resort also features a conference area with seven rooms with a capacity of up to 900 people.

The rooms come in 7 different types with room sizes ranging from 21 sq.m to 34 sq.m, with *Superior*, *Superior with Terrace*, *Deluxe with Sea Views*, *Deluxe Family*, *Deluxe Family with terrace*. *Premium with Sea View* and *Family with Sea View*. There are also 3 types of suites, *Junior*, *Premium Junior* and *Carvoeiro*, all with sea views and with special VIP treatment and several amenities.

The food options are varied with 6 spaces divided into 3 restaurants and 3 bars plus the option of room service. The Mare Bistros offers light meals from the local cuisine. The One Restaurants serves Portuguese cuisine alongside local wines. Med Food and Wine offers both Portuguese and foreign cuisine with themed buffets alongside by seafood and wine. The bars offer various food and drink options with special focus on the Sky Bar Carvoeiro with its views over the Atlantic.

The guests are mainly couples or families seeking a relaxing stay, away from the busier locations of Algarve, and still enjoy a coastline setting surrounded by nature.

1.6 Research Questions

What is the market value of the two assets, Tivoli Marina Vilamoura Resort and the Tivoli Carvoeiro Resort, as of 31st March 2021?

2. Pedagogical Note

2.1. Target Audience

This Case Study is directed to Batchelor and Master students with basic understanding of finance.

2.2. Pedagogical Goals

The main goals for this case study are:

- Understand how a Real Estate Private Equity Fund is created and its fundamental characteristics.
- Learn the fundamentals of the hotel business with a focus on the financial aspects and how the different structures of the operations can impact the returns and risk for investors.
- Comprehend how the hotel and the real estate are closely linked and how this affects investor's analysis for these types of assets.
- Learn the different real estate valuation approaches and techniques, when and how to apply each one and why in practice they can differ from the more common ways to value financial assets.

2.3. Review of Literature

Butler and Baltin (2013) described a hotel as a "business housed in real estate" which poses the question whether to use valuation techniques for "regular" businesses or as a real estate asset. It is also slightly different from other commercial real estate assets, such as office or warehouses, because there are no long-term tenants with lease agreements as rooms are sold by the night. The closest to the more common commercial real estate assets would be in the case of the owner leasing out the property to an operator with a fixed amount of rent, effectively eliminating the direct exposure to the hotel business but keeping the exposure to the real estate market.

Moreover, real estate transactions can be carried out in two ways: an asset deal or a share deal. In the asset deal the object of the exchange is the property's title itself. In the share deal, the object of the transaction are the shares of the company which owns the property (usually called the investment vehicle). The type of deal will depend on the participants with the more common reasons to do a share deal over an asset deal being legal, tax and convenience.

In hotel transactions doing a share deal is common as it allows for supplier's contracts, other legal agreements, cash assets and other assets/liabilities to remain in the same entity making the process easier and less bureaucratic. In the share deal the asset can still be valued and the remaining assets/liabilities of the company be added/subtracted to the assets value depending on the agreement and negotiations between the parties.

Some authors, such as renowned valuation professor Aswath Damodaran [Damodoran (2012)] offer a different point of view and argue that, although real and financial assets are in different asset classes, they share similar characteristics as both their values depend on the potential cash-flow generation and so the techniques and methods used to value them should not be different. Even so, as the standards and practices that will be presented in the next paragraph are recognized and accepted by the market and even if an investor would adopt other techniques to assess the value of a property, it would still be requested by possible lenders and third parties to provide a valuation based on them, thus this review of literature and the case itself will be based on real estate valuation techniques.

Many intervenients in the Real Estate environment, from investors, managers, developers, commercial agents to public entities, accountants, auditors, insurers, and lenders (banks), are interested in the market value of a particular property or the evolution of the market values for the different types of properties in the market to support their decisions, according to their particular interests in that information. Thus, a valuation can have many purposes (internal management, loan security, transaction, insurance…) and, due to its supporting role of important decisions, must be done in a professional and independent manner otherwise negative consequences to the intervenient and to society overall (sometimes even global crisis) might occur.

Surveyors are professionals whose main objective is to provide an independent valuation of an interest in a property (for example freehold, right-of-use, leasehold) upon request by a market player according to specific standards and best practices accepted by the general market.

Associations of surveyors like the Royal Institution of Chartered Surveyors (RICS) and The European Group of Valuer's Associations (TEGOVA) have the objective of defining the most ethical and technical standards and best practices for the property sector, either land or already existing buildings. These standards are compiled and distributed to the public in guides such as the Red Book, by RICS, and the European Valuation Standards, or Blue Book, by TEGOVA. They are crucial for the overall transparency of the market and the confidence level of the intervenient in valuations performed.

2.3.1. Market Value

RICS defines Market Value as “estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm’s length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion” (RICS, 2020). TEGOVA (2020) provides an identical definition and clarifies that in arm’s length means that the buyer and seller act independently of each other and are not for example subsidiary and parent company or are in any way related.

2.3.2. Valuation Approaches

To arrive at the market value, a set of methods can be used. A Valuation Method is defined by TEGOVA (2020) as “the particular procedure, based on one or more valuation approaches, used by the valuer to arrive at an estimate of value”. A Valuation Approach is the fundamental way the valuer uses to determine the value and is based on underlying economic principles and the information available.

The Methods can fall under 3 different Approaches: Market, Income and Cost. Although with different wording, most authors agree on the definition of these approaches (Rushmore & deRoos (2004), Goddard, G. J., & Marcum, B. (2014), TEGOVA (2020), RICS (2020),

2.3.2.1. Market Approach

The *Market Approach,* also known as Sales Approach, is used when “the valuation is produced by comparing the property with the evidence obtained from market transactions that fulfil the criteria for the relevant basis of value and property type”. TEGOVA (2020).

This approach works best when there is a lot of market evidence of transactions involving similar assets to the one under valuation meaning that assets are somewhat homogeneous. It is the primary approach to value residential properties but is usually not the first choice for commercial properties although is commonly used to as a complement to the other approaches.

The appraiser compiles a list of effective transactions involving comparable properties and applies an adjustment factor to account for difference in factors such as age, conservations state, size, quality of construction and location, to arrive at a value for the subject property. If no transaction data is available, a comparison to other properties available for sale can be made.

To accommodate for size/area differences a per area basis is usually used, i.e. market value per square meter, although in the case of for example hotels a price per key/room preferred Goddard, and Marcum (2014).

This approach depends on the appraiser's judgment of the comparability of the asset to the comparables and thus the valuation can be very subjective although the value attributed should follow a rational.

2.3.2.2. Income Approach

The I*ncome Approach* is for the valuation of all property where its value is found by capitalizing or discounting the estimated future income to be derived from the property, whether this income is rent or whether it is income generated by the business that is carried out on the property". TEGOVA (2020)

According to the Red Book, all income methods in the income approach are derived from the Discount Cash Flow method (DCF) with the direct capitalization method being just a terminal value with no explicit projection period.

For the application of the DCF method 6 keys steps are needed to arrive at the value of the property:

1) Type of Cash Flow

Choose the type of cash flow to use given the nature of the asset under valuation including aspects such as currency, real or nominal (the later includes inflation expectations both in cash flow and discount rate), pre or post-tax, whole income from the property or a partial interest, etc.

The typical cash flow generated by a property is the one coming from rent but in the case of operating assets the income from operations can be used. For hotels the usual indicator is Net Operating Income which is derived from the operation's EBITDA.

2) Choose an Explicit Forecast Period

A number of factors must be taken into account by the valuer when choosing the explicit forecast period in the valuation which include the life of the asset, the period for which reliable projections can be made, the cycle of income for cyclical assets, whether or not income and profits are stabilized after which an estimate for terminal value can be reached, etc.

Sometimes, if the income from the property is deemed stabilized, there is the possibility of not including an explicit period in the valuation and applying a yield to the stabilized income in order to obtain the terminal value which then coincides with the value of the asset, this is otherwise known as the direct income capitalization method. Some authors describe this method as separate from the DCF method although, as demonstrated, it is only a special of said DCF method.

3) Cash Flow forecast

The projection of the cash flow in the valuation should be congruent with the basis of value, for example if market value is being determined the ones used should be the expected by market participants and not just the judgment of one particular investor. These can be based on contractual rents or the expected results from the operations with the necessary adjustment to account for the riskiness or volatility of the cash flows (using for example the most likely value, a probability weighted value or a scenario-based value).

4) **Terminal Value**

If cash flows exceed the time period of the explicit forecast period, then the valuer must estimate a terminal value at the end of that period. The choice of method to do so should be based on the lifetime of the asset, with a Salvage Value/Disposal Cost being used with finite and deteriorating assets, the Gordon Growth Model (Gordon and Shapiro (1956)) with indefinite-lived assets and with the Market Approach/Exit Value working with both mentioned assets.

The first model to determine the terminal value is self explanatory with the valuer incorporating all the remaining value of the asset plus the costs of disposing of the asset (the value might be negative)

In the Gordon Growth Model the terminal value is determined by applying a constant growth rate to the stabilized cash flow that the asset is expected to produce in perpetuity.

The before mentioned market approach can also be used to determine terminal value as well as other methods to determine an exit value such as a market multiple.

5) **Discount Rate**

The future cash flows produced by the asset should be discounted to the present not only to reflect the time value of money but also the risk associated with said cash flows.

A number of methods can be used to determine the discount rate depending on the situation with the Weighted Average Cost of Capital (WACC), a build-up method or using capitalization rates/yields. (RICS (2010), RICS (2020), TEGOVA (2020),

The WACC considers the amounts and costs of debt and equity used in an investment with the cost of equity being commonly estimated recurring to the Capital Asset Pricing Model (CAPM). This method is shared by both property and financial investments although in practice it can be more challenging for a valuer to apply. For instance, the amount of debt used in a deal can vary between market participants as well as it costs and covenants, thus making it difficult to apply a market standard. The CAPM is also not a consensual model for property investment given it only rewards systemic risk (thought beta and market risk premiums) and not specific risk due to the assumption of diversification of the investor, while in property the return is often linked with the specific risk given the high heterogeneity between assets even when accounting for sector, location, age, etc not two properties will be the same. Limited transaction data to derive parameters is also one most common critique of using this model.

Build up models usually started from a risk-free rate and add risk premium to account for both market risks (e. g. economic environment, liquidity, legal) and specific risks (e.g. tenant/operator, length of contracts, break options, obsolescence). Although straightforward it can be complex to assign a numerical value to each of the risk premiums.

When using cap rates/yields to estimate a discount rate, valuers usually also account for future rental growth, adding the growth rate to the cap rate, and can also include a risk premium to form the discount rate. Cap rates are usually derived from information on market transactions or investor surveys.

6) **Arriving at the Market Value**

After all the steps above the valuer should discount the cash flows to the present using the determined discount rate, thus arriving at a Net Present Value with the last step being subtracting from this value any Transaction Costs, for example transfer tax, legal fees and due diligence, incurred to purchase the asset.

2.3.2.3. Cost Approach

The *Cost Approach* in based on the" economic principle that a buyer will pay no more for a property than the cost to obtain a property of equal utility, whether by purchase or by construction, including the cost of sufficient land to enable that construction". TEGOVA (2020)

This approach is the least used of the three due to lower applicability and yields more accurate results for new properties. Also useful in valuations for insurance purposes as it separates the value of the land the asset is in from the value of the building. It can also be appropriate for assets which do not rent/trade frequently or have a very specific use that makes it hard to estimate their value by using the other methods.

2.4. Animation Plan

The suggested approach to deliver the case is as follows:

1. Students should read the case as an introduction to the various themes and initial doubts should be cleared by the lecturer.
2. Then one of the following approaches is suggested:
    1) Divide the class into groups and solve the general questions followed by a further division into two teams each with one of the specific questions for the assets
    2) After the reading of the case, the lecturer asks the general questions and the specific asset questions can be answered individually or in small group that can be divided further into each of the assets.

2.5. Questions to the audience:

General

1. What is the best valuation approach to value the assets? Why?
2. What type of deal should the fund choose in case of purchase? Why?
3. What is the debt policy of the fund and having in mind the target IRR and fees, what should the average IRR rate be to achieve that target?

Asset Specific

4. Based on the projections presented calculate the Market Value based on a 7-year holding period.
5. Based on the fund's characteristics (target IRR and debt policy), should the fund invest in the assets?
6. After the acquisition a Capex amount can be invested into each asset. Evaluate whether or not should the investment be made for each of the assets.

2.6. Analysis Tools

The following analysis tools were designed with the objective of helping students in the resolution of the case.:

- Annex A: Asset Specific Questions: Tivoli Marina Vilamoura
- Annex B: Asset Specific Questions: Financial Data for Tivoli Carvoeiro
- Annex C: DCF Calculation sheet
- Annex D: Suggested resolution of the case

The financial information necessary to solve the questions for each asset is present in annexes A and B. This includes the project financial performance of the assets and the assumption that should be considered when solving the questions presented.

Annex C is a calculation sheet that serves as a guideline for the cash flow statements required to solve the case.

Finally, the suggested resolution for the case is presented in annex D containing possible answers to both general and asset specific questions.

2.7. Resolution

As previously stated, a suggested resolution for the case is presented in annex D. The results for each of the specific questions are dependent on the projects and assumptions given in the base case.

Although the market value arrived question 1 is similar to the reported value of the real transaction of the assets, all financial information provided in annexes A and B were based on the available public information (namely asking room prices) and estimates by the author and are not based on historical information or the company's projections. Given this, the projects and assumptions can be changed by the lecturer without taking away from the main objective of the case although it can naturally yield different results.

2.8. Conclusion

After the resolution of the case, students should now have a basic notion of the financial aspects of the real estate and hotel industry.

The data, projections and assumptions used are asset and date specific, so they hold little applicability for the analysis of other transaction so the main takeaways from the case should be the methods and tools used to solve it as these tend to be be similar across transactions as well as time.

References

Books and papers:

Apeseche, Frank P. (2018), Today's Real Estate Private Equity Funds, Why a successful Long Term Alignment Exist Between Investors and Sponsors. Pensions&Investments White Paper

Asih, I, Purba, H. P. and Sitorus, T. M. (2020). Key Performance Indicators: A Systematic

Literature Review, Journal of Strategy and Performance Management, 8 (4), 142-155.

Barrows, C. W., Powers, T., & Reynolds, D. (2011). Introduction to the hospitality industry (8th ed.). John Wiley & Sons.

Batinic, I. (2016). Hotel Management and quality of Hotel Services. Journal of Process Management. New Technologies, 4(1), 25–29. https://doi.org/10.5937/jpmnt1601025b

Butler, Jim, & Baltin, Bruce (2013). How to Buy a Hotel: An overview of the Hotel Acquisition Process. Global Hospitality Group & PKF Consulting USA LLC.

Damodaran, A. (2012b). Damodaran on valuation: Security analysis for investment and corporate finance (2nd ed.). John Wiley & Sons

Garay, U. 2016, “Real Estate as an Investment.” In Kazemi, H.; Black, K.; and D. Chambers

(Editors), Alternative Investments: CAIA Level II, Chapter 14, Wiley Finance, 3rd

Edition, pp. 343-358

Goddard, G. J., & Marcum, B. (2012). Real estate investment: A Value Based Approach. Springer.

Gordon, M. J., & Shapiro, E. (1956). Capital Equipment Analysis: The Required Rate of Profit. Management Science, 3, 102-110.

Hales, J. A. (2005). Accounting and financial analysis in the hospitality industry. Elsevier Butterworth–Heinemann.

Hayes, D.K., Ninemeier,J.D., Miller, A.A. (2013), Foundations of lodging managment (2nd ed.), Pearson New International.

Larkin, D. E., Babin, M. L., & Rose, C. A. (2004). Structuring European real estate private equity funds. Briefings in Real Estate Finance, 3(3), 229–235. https://doi.org/10.1002/bref.103

ETC (2021). European Tourism: Trends and Prospects Quarterly Report Q1/2021 .European Travel Commission (ETC).

Linneman, Peter , Ross, Stanley (2002), Real Estate Private Equity Funds, Zell/Lurie Real Estate

Center, White Paper

Orfila-Sintesa, F., Crespi-Cladera, R. and Martinez-Ros, E. (2005) ‘Innovation activity in the hotel

industry: evidence from Balearic Islands’, Tourism Management, Vol. 26, No. 6, pp.851–865.

CFP (2021b), Prespetivas Económicas e Orçamentais 2021-2025. Portuguese Public Finance Council (CFP).

RICS (2010). Discounted cash flow for commercial property investment.Royal Institution of Chartered Surveyors (RICS).

RICS (2020). RICS Valuation – Global Standards.Royal Institution of Chartered Surveyors (RICS).

Rivera. Miguel (2011). Hotel managment fees miss the mark. HVS Asset Management & Advisory

Rushmore, S., & deRoos, J. A. (2004). Hotel investments handbook (5th ed.). Appraisal Institute

Sahlman, W. A. (1990). The structure and governance of venture-capital organizations. Journal of Financial Economics, 27(2), 473–521. https://doi.org/10.1016/0304-405x(90)90065-8

TEGOVA (2020). European Valuation Standards 2020 (9th ed.). The European Group of Valuer's Associations (TEGOVA).

Walker, D., & Walker, T. (2013). Doing business internationally: The guide to cross-cultural success (2nd ed.). McGraw-Hill

Younes, E., & Kett, R. (2007). Hotel investment risk: What are the chances? Journal of Retail and Leisure Property vol. 6 No.1, 69 – 78.

Web References:

Azora: https://www.azora.es/?lang=en

Insitutito Nacional de Estatitica (INE): https://www.ine.pt/

Travel BI: https://travelbi.turismodeportugal.pt/

Tivoli Hotels: https://www.tivolihotels.com/pt

Savills (2021): https://www.savills.com/research_articles/255800/313706-0

Annexes:

Annex A: Asset Specific Questions: Tivoli Marina Vilamoura

TIVOLI MARINA VILAMOURA RESORT

Q1: Based on the projections presented calculate the Market Value based on a 7-year holding period.

OPERATIONAL PERFORMANCE

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Number of Rooms	383	383	383	383	383	383	383
ADR	217	224	230	234	238	242	246
ADR Growth	-	3.50%	2.50%	1.70%	1.70%	1.70%	1.70%
Occupation Rate	45%	60%	68%	68%	68%	68%	68%
Rooms occupied	62,908	83,877	94,362	94,362	94,362	94,362	94,362
% Room Revenue	70.0%	67.5%	65.0%	65.0%	65.0%	65.0%	65.0%
RevPAR	98	135	155	158	161	163	166
RevPOR	310	332	354	360	366	372	379
Total Revenues (th €)	**19,483**	**27,881**	**33,385**	**33,961**	**34,536**	**35,121**	**35,716**
GOP (% Revenues)	*25.00%*	*30.00%*	*35.00%*	*35.00%*	*35.00%*	*35.00%*	*35.00%*
Gross Operating Profit (th €)	**4,871**	**8,364**	**11,685**	**11,886**	**12,088**	**12,292**	**12,501**
NOI (% Revenues)	*15.00%*	*20.00%*	*25.00%*	*25.00%*	*25.00%*	*25.00%*	*25.00%*
Net Operationg Income (th €)	**2,922**	**5,576**	**8,346**	**8,490**	**8,634**	**8,780**	**8,929**

KPI's	
Capitalization Rate	7.00%
Discount Rate	8.70%
Transaction Costs	1.00%

Q2: Based on the fund's characteristics (target IRR and debt policy), should the fund invest in the assets?

OPERATIONAL CASHFLOW	
Loan to Value	55.00%
Term (years)	20
Interest Rate	3.50%

Q6: After the acquisition a Capex amount can be invested into each asset. Evaluate whether or not should the investment be made for each of the assets

INVESTMENT	
Capex Amount (th €)	**4,500**

OPERATIONAL PERFORMANCE AFTER INVESTMENT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Nr Rooms	383	383	383	383	383	383	383
ADR	214	221	227	231	235	239	243
ADR Growth	-	3.50%	2.50%	1.70%	1.70%	1.70%	1.70%
Occ Rate	42.5%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Rooms occupied	59,413	83,877	97,857	97,857	97,857	97,857	97,857
% Room Revenue	70.0%	65.0%	60.0%	60.0%	60.0%	60.0%	60.0%
RevPar	91	133	159	162	164	167	170
RevPOR	306	341	378	385	391	398	405
Total Revenues (th €)	**18,163**	**28,577**	**37,019**	**37,655**	**38,291**	**38,947**	**39,603**
GOP (% Revenues)	*25.00%*	*27.50%*	*27.50%*	*27.50%*	*27.50%*	*27.50%*	*27.50%*
GOP (th €)	**4,541**	**7,859**	**10,180**	**10,355**	**10,530**	**10,710**	**10,891**
NOI (% Revenues)	*15.00%*	*20.00%*	*25.00%*	*25.00%*	*25.00%*	*25.00%*	*25.00%*
NOI (th €)	**2,724**	**5,715**	**9,255**	**9,414**	**9,573**	**9,737**	**9,901**

Annex B: Asset Specific Questions: Tivoli Carvoeiro

TIVOLI CARVOEIRO RESORT

Q4: Based on the projections presented calculate the Market Value based on a 7-year holding period.

OPERATIONAL PERFORMANCE

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Number of Rooms	248	248	248	248	248	248	248
ADR (€)	162	167	170	173	176	179	182
ADR Growth	-	3.00%	2.00%	1.70%	1.70%	1.70%	1.70%
Occupation Rate	37%	50%	65%	65%	65%	65%	65%
Rooms occupied	33,492	45,260	58,838	58,838	58,838	58,838	58,838
% Room Revenue	75.0%	72.5%	70.0%	70.0%	70.0%	70.0%	70.0%
RevPAR	60	83	111	112	114	116	118
RevPOR	216	230	243	247	251	256	260
Total Revenues (th €)	**7,224**	**10,405**	**14,292**	**14,533**	**14,780**	**15,033**	**15,286**
GOP (% Revenues)	*25.00%*	*30.00%*	*35.00%*	*35.00%*	*35.00%*	*35.00%*	*35.00%*
Gross Operating Profit (th €)	**1,806**	**3,122**	**5,002**	**5,087**	**5,173**	**5,262**	**5,350**
NOI (% Revenues)	*15.00%*	*20.00%*	*25.00%*	*25.00%*	*25.00%*	*25.00%*	*25.00%*
Net Operationg Income (th €)	**1,084**	**2,081**	**3,573**	**3,633**	**3,695**	**3,758**	**3,822**

KPI's	
Capitalization Rate	7.50%
Discount Rate	9.20%
Transaction Costs	1.00%

Q5: Based on the fund's characteristics (target IRR and debt policy), should the fund invest in the assets?

LOAN TERMS	
Loan to Value	55.00%
Term (years)	20
Interest Rate	3.50%

Q6: After the acquisition a Capex amount can be invested into each asset. Evaluate whether or not should the investment be made for each of the assets

INVESTMENT	
Capex Amount (th €)	**2,500**

OPERATIONAL PERFORMANCE AFTER INVESTMENT

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Number of Rooms	248	248	248	248	248	248	248
ADR (€)	167	172	175	178	181	184	187
ADR Growth	-	3.00%	2.00%	1.70%	1.70%	1.70%	1.70%
Occupation Rate	35.0%	55.0%	67.5%	67.5%	67.5%	67.5%	67.5%
Rooms occupied	31,682	49,786	61,101	61,101	61,101	61,101	61,101
% Room Revenue	75.0%	70.0%	67.5%	70.0%	70.0%	70.0%	70.0%
RevPAR	58	94	118	120	122	124	126
RevPOR	222	245	259	254	259	263	267
Total Revenues (th €)	**7,037**	**12,203**	**15,843**	**15,538**	**15,801**	**16,070**	**16,338**
GOP (% Revenues)	*25.00%*	*30.00%*	*34.50%*	*34.50%*	*34.50%*	*34.50%*	*34.50%*
Gross Operating Profit (th €)	**1,759**	**3,661**	**5,466**	**5,361**	**5,451**	**5,544**	**5,637**
NOI (% Revenues)	*15.00%*	*20.00%*	*25.00%*	*25.00%*	*25.00%*	*25.00%*	*25.00%*
Net Operationg Income (th €)	**1,055**	**2,441**	**3,961**	**3,884**	**3,950**	**4,017**	**4,085**

Annex C: DCF Calculation sheet

RESOLUTION SHEET

Resolution Q1:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Operational Cash Flow						
Asset Sale (End Year 6)						
Total Cash Flow						
Discounted Cash-Flow (th €)						

MARKET VALUE	
Per room	

Resolution Q2:

	Present	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Purchase Price							
Loan Amount Outstanding							

Initial Investment							
Operational Cash Flow							
Interest Payment							
Principal Payment							
Debt Service Payment							
Asset Sale (End Year 6)							
Debt Repayment (End of Y6)							
Total Cash Flow							

Levered Internal Rate of Return	

Resolution Q3:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Operational Cash Flow						
Asset Sale (End Year 6)						
Total Cash Flow						
Discounted Cash-Flow (th €)						

	Present	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Purchase Price							
Capex							
Loan Amount Outstanding							

Equity Investment							
Operational Cash Flow							
Interest Payment							
Principal Payment							
Debt Service Payment							
Asset Sale (End Year 6)							
Debt Repayment (End of Y6)							
Total Cash Flow							

Levered Internal Rate of Return	

Annex D: Suggested Resolution of the Case

General Questions

Resolution Q1:

The best valuation approach to value the assets is the income approach based on a discounted Cash flow analysis. The comparative method is not suited for hotels due to the heterogenous nature of each asset and the small number of comparable transactions in the market. The cost method is more reliable when applying to newer building which is not the case. Finally, the income method using the discounted cash flow approach is best suited as the properties generate an income, but this income is not yet stabilized due to uncertainty in the tourism industry.

Resolution Q2:

In case of purchase the fund should pursue a share deal as it is more convenient in terms of business contracts already in place and also for tax reasons.

Resolution Q3:

The fund's maximum Loan to Value amount is 55% and the target IRR is between 13% and 14% after fees with fees. With management fees being around 1.5%, the target IRR should be above 14.

Asset Specific Questions.

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Resolution Q1:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Operational Cash Flow	2,922	5,576	8,346	8,490	8,634	8,780
Asset Sale (End Year 6)	-	-	-	-	-	127,557
Total Cash Flow	**2,922**	**5,576**	**8,346**	**8,490**	**8,634**	**136,337**
Discounted Cash-Flow (th €)	**2,688**	**4,719**	**6,498**	**6,081**	**5,689**	**82,649**

MARKET VALUE	**107,250,000**
Per room	280,030

Resolution Q2:

	Present	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Purchase Price	108,323	-	-	-	-	-	-
Loan Amount Outstanding	59,577	57,471	55,290	53,033	50,698	48,280	45,778

Initial Investment	**(48,745)**	**-**	**-**	**-**	**-**	**-**	**-**
Operational Cash Flow	**-**	**2,922**	**5,576**	**8,346**	**8,490**	**8,634**	**8,780**
Interest Payment	-	(2,085)	(2,011)	(1,935)	(1,856)	(1,774)	(1,690)
Principal Payment	-	(2,107)	(2,180)	(2,257)	(2,336)	(2,418)	(2,502)
Debt Service Payment	**-**	**(4,192)**	**(4,192)**	**(4,192)**	**(4,192)**	**(4,192)**	**(4,192)**
Asset Sale (End Year 6)	**-**	**-**	**-**	**-**	**-**	**-**	**127,557**
Debt Repayment (End of Y6)	**-**	**-**	**-**	**-**	**-**	**-**	**(45,778)**
Total Cash Flow	**(48,745)**	**(1,270)**	**1,384**	**4,154**	**4,298**	**4,442**	**86,367**

Levered Internal Rate of Return	13.25%

Resolution Q3:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Operational Cash Flow	2,724	5,715	9,255	9,414	9,573	9,737
Asset Sale (End Year 6)	-	-	-	-	-	141,438
Total Cash Flow	**2,724**	**5,715**	**9,255**	**9,414**	**9,573**	**151,174**
Discounted Cash-Flow (th €)	**2,495**	**4,793**	**7,107**	**6,620**	**6,165**	**89,154**

	Present	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Purchase Price	108,323	-	-	-	-	-	-
Capex	-	4,500	-	-	-	-	-
Loan Amount Outstanding	59,577	57,471	55,290	53,033	50,698	48,280	45,778

Equity Investment	**(48,745)**	**(4,500)**	**-**	**-**	**-**	**-**	**-**
Operational Cash Flow	**-**	**2,724**	**5,715**	**9,255**	**9,414**	**9,573**	**9,737**
Interest Payment	-	(2,085)	(2,011)	(1,935)	(1,856)	(1,774)	(1,690)
Principal Payment	-	(2,107)	(2,180)	(2,257)	(2,336)	(2,418)	(2,502)
Debt Service Payment	**-**	**(4,192)**	**(4,192)**	**(4,192)**	**(4,192)**	**(4,192)**	**(4,192)**
Asset Sale (End Year 6)	**-**	**-**	**-**	**-**	**-**	**-**	**141,438**
Debt Repayment (End of Y6)	**-**	**-**	**-**	**-**	**-**	**-**	**(45,778)**
Total Cash Flow	**(48,745)**	**(5,968)**	**1,523**	**5,063**	**5,222**	**5,381**	**101,204**

Levered Internal Rate of Return	14.98%

A: The fund should make the investment as IRR will be greater than in the base case.

Resolution Q1:

OPERATIONAL CASHFLOW

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Operational Cash Flow	1,084	2,081	3,573	3,633	3,695	3,758
Asset Sale (End Year 6)	-	-	-	-	-	50,954
Total Cash Flow	**1,084**	**2,081**	**3,573**	**3,633**	**3,695**	**54,712**
Discounted Cash-Flow (th €)	**992**	**1,745**	**2,744**	**2,555**	**2,380**	**32,266**

MARKET VALUE	**42,260,000**
Per Room	170,400

Resolution Q2:

	Present	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Purchase Price	42,683	-	-	-	-	-	-
Loan Amount Outstanding	23,475	22,645	21,786	20,897	19,977	19,024	18,038

Initial Investment	**(19,207)**	**-**	**-**	**-**	**-**	**-**	**-**
Operational Cash Flow	**-**	**1,084**	**2,081**	**3,573**	**3,633**	**3,695**	**3,758**
Interest Payment	-	(822)	(793)	(763)	(731)	(699)	(666)
Principal Payment	-	(830)	(859)	(889)	(920)	(953)	(986)
Debt Service Payment	**-**	**(1,652)**	**(1,652)**	**(1,652)**	**(1,652)**	**(1,652)**	**(1,652)**
Asset Sale (End Year 6)	**-**	**-**	**-**	**-**	**-**	**-**	**50,954**
Debt Repayment (End of Y6)	**-**	**-**	**-**	**-**	**-**	**-**	**(18,038)**
Total Cash Flow	**(19,207)**	**(568)**	**429**	**1,921**	**1,981**	**2,043**	**35,022**

Levered Internal Rate of Return	14.12%

Resolution Q3:

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Operational Cash Flow	1,055	2,441	3,961	3,884	3,950	4,017
Asset Sale (End Year 6)	-	-	-	-	-	54,461
Total Cash Flow	**1,055**	**2,441**	**3,961**	**3,884**	**3,950**	**58,479**
Discounted Cash-Flow (th €)	**967**	**2,047**	**3,042**	**2,732**	**2,544**	**34,488**

	Present	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Purchase Price	42,683	-	-	-	-	-	-
Capex	-	2,500	-	-	-	-	-
Loan Amount Outstanding	23,475	22,645	21,786	20,897	19,977	19,024	18,038

Equity Investment	**(19,207)**	**(2,500)**	**-**	**-**	**-**	**-**	**-**
Operational Cash Flow	**-**	**1,055**	**2,441**	**3,961**	**3,884**	**3,950**	**4,017**
Interest Payment	-	(822)	(793)	(763)	(731)	(699)	(666)
Principal Payment	-	(830)	(859)	(889)	(920)	(953)	(986)
Debt Service Payment	**-**	**(1,652)**	**(1,652)**	**(1,652)**	**(1,652)**	**(1,652)**	**(1,652)**
Asset Sale (End Year 6)	**-**	**-**	**-**	**-**	**-**	**-**	**54,461**
Debt Repayment (End of Y6)	**-**	**-**	**-**	**-**	**-**	**-**	**(18,038)**
Total Cash Flow	**(19,207)**	**(3,096)**	**789**	**2,309**	**2,233**	**2,298**	**38,789**

Levered Internal Rate of Return	14.41%

A: The fund should not make the investment as IRR will be lower than in the base case.