

MSc in Finance

Capstone Project:

**Financial Feasibility Analysis of a Real Estate Investment Project in Eastern
Europe**

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Financial Analysis: Real Estate Investment Project

This capstone study discusses a real estate development project in Burgas, Bulgaria's fourth largest city. The purpose of this capstone study is to determine the Project's financial viability by analyzing the nature of the real estate investment on the basis of its financial dimensions.

Following methods were used to demonstrate the feasibility of the Real Estate Investment Project:

Profitability analysis

Cash Flow Forecast analysis

Net Present Value (NPV) and Internal Rate of Return (IRR) models

Ratio Analysis

Real Estate Development Approaches

Real estate development is usually accomplished through chronological phases. These phases are defined by the concentration of activities and their levels of completion (Leelarasamee, 2005). Peiser and Schwanke (1992) recommend that real estate development could be divided into five phases: planning/initiation, feasibility analysis, commitment, construction, and management/operation. There are other similar models to consider, including the model proposed by Sharkawy, which continues to be one of the most widely used in real estate today. Sharkawy (1994) proposed a model emphasizing associations between development activities and key participants. This model integrates the following four stages: predevelopment, document development, project production, and post development. This model is known as the PHY-FI of development, since it highlights the physical and financial dimensions of development. This model will be useful for the capstone study given the importance it gives to the financial dimensions of investment projects in real estate.

The PHY-FI model highlights the synergy between physical and financial development, bounded by a dashed line that calls attention to the relationship between real estate's physical attributes and financial value (Sharkawy, 1994). The model highlights that developers often make trade-offs between the physical attributes and the financial value of real estate, and by so doing, fail to achieve established goals for different stakeholders. Therefore, developers need to consider every physical and financial component using an integrative framework. This ensures that (a) equal attention is given to the cost-income-value continuum; and (b) it becomes possible to smoothly transition through the development-operations-disposition stages of the real estate investment cycle (Sharkawy, 1994).

The Project

The Project will be developed in Burgas, Bulgaria. Bulgaria's real estate market has demonstrated signs of robust growth following a period of serious decline in the wake of the 2008-2009 global financial crisis. In fact, 2017 was the most successful year for Bulgaria's property market over the past decade (Stoykova, 2017). Additional to this, Burgas currently stands out as one of the "most dynamic residential markets in the country with increased demand and insufficient supply, leading to accelerating growth in the property prices" (Paskova, 2017).

Project Development Site – Burgas, Bulgaria



The Project will be developed in a site that is in close proximity to Slaveykov Park, facing Yanko Komitov Street. Burgas is an excellence choice for development because (a) it is the second largest city on the Bulgarian Black Sea coast and the fourth largest city in Bulgaria; (b) it has a population of 300,000 people, which translates into an attractive potential market; (c) and it is the biggest and only oil port in Bulgaria, it has the second largest airport in the country, and it is the home to the largest chemical and oil refinery in southeastern Europe.

The Project is a modern residential complex consisting of three residential buildings, three office buildings, and serving commercial areas on the ground floor. The key strategy will be to sell the residential property with its respective parking space (which will take up two underground levels). The location of the Project and the specificity of the market place the residential property in the middle segment of the market; it will be targeted at middle-income buyers. Specifically, the target market will include families and couples, as well as people seeking to buy a first home. The proposed mix of residential units covers 4 types of apartments. The construction of the office and commercial spaces will be parallel to the construction of the residential spaces so that the completion and the beginning of the complex's operation will be completed at the same time.

Construction Plan

The construction of the Project will be divided into three individual phases in order to avoid flooding the market. The first residential building will be built in Phase 1; construction will take 1 year. This building will have a constructed area of 21,260 m². The necessary parking spaces for the residents will be in the building's 2 underground levels. The first office building and the necessary technical and transport infrastructure that will serve both buildings will be completed simultaneously. The plan is to materialize the sale of at least 50% of the units in the first residential building by the time of its completion.

The second residential building will be built in Phase 2; construction will also take 1 year. Its constructed area will total 21,260 m². The necessary parking spaces for the residents will be in 2 underground levels. The second office building and the necessary (additional) infrastructure will be completed simultaneously. It is expected that the remaining 50% of the first residential building's units will be sold during the second year of the complex' construction, as well as 50% of the second residential building's units.

The third residential building will be built in Phase 3, and also over the course of 1 year. Its constructed area will total 21,260 m². The necessary parking spaces for the residents will be

located in the building's 2 underground levels. The third office building and the necessary (additional) infrastructure will be completed simultaneously. It is expected that the remaining 50% of the second residential building's units will be sold during the third year of the complex' construction, as well as 50% of the third residential building's units.

Project Completion

The company plans to complete the sale of the remaining 50% of the of third residential building's units within the 6 months following the completion of Phase 3 of the Project. Overall, the Project's duration is planned for 4 years. Planning and design will take up 6 months. Construction will take up 3 years. Final completion and the sale of the last of the residential units will take up the remaining 6 months. In order to avoid disturbing the tenants and residents in the completed phase, and before starting the next phase, all of the main and internal streets will be built. Because of this reason, the main part of the infrastructure will be implemented during the first phase of the construction.

Phases of Construction and Commercialization

Residential Area

The construction of the residential area of the Project is shown in the Schedule for construction and commercialisation. Designing and planning the Project will not take longer than 6 months, while the construction itself will take 3 years, as outlined below:

1. The first residential building (21,260 m² constructed area plus commercial area of approximately 6,400 m²) will be built in Phase 1. The duration of this phase is expected to be of 1 year. The projected sales revenue in this first year of construction will guarantee funding for the construction of the second residential building in Phase 2. During this first year, the sale of the first 50 % of the units in the first building is anticipated. The expectation is that the remaining 50% of units in the first residential building will be completed within the 6 months following the completion of Phase 1.
2. The second residential building (21,260 m² constructed area plus commercial area of approximately 5,000 m²) will be built in Phase 2. The duration of this phase is expected to be of 1 year. The projected sales revenue in this second year of construction will guarantee funding for the construction of the third residential building in Phase 3. During this second year, the sale of the first 50 % of the units in the second building is anticipated. The expectation is that the remaining 50% of units in the second residential building will be completed within the 6 months following the completion of Phase 2.
3. The third residential building (21,260 m² constructed area plus commercial area of approximately 5,000 m²) will be built in Phase 3. The duration of this phase is expected to be of 1 year. During this third year, the sale of the first 50 % of the units in the third building is anticipated. The expectation is that the remaining 50% of units in the third residential building will be completed within the 6 months following the completion of Phase 3.

Office Area

The units in the office buildings shall be built simultaneous with the residential buildings. Construction, however, will not initially include air-conditioning installations, floating floors, or suspended ceilings and lightings. The construction of the Project's office area is also included in the Construction and Market Realisation Schedule. The designing and planning of the Project

shall not take more than 6 months, while the construction itself shall take 3 years, as outlined below:

1. The first office building (13,960 m² constructed area plus commercial area of approximately 5,400 m²) will be built in Phase 1. The entirety of the necessary technical and transport infrastructure will be completed simultaneously.
2. The second office building (13,960 m² constructed area plus commercial area of approximately 5,400 m²) will be built in Phase 2. The expectation is that the investment for the second office building will total 10,545,500 EUR; monthly revenues are estimated at 131,760 EUR. This translates into a Return on Investment/Payback Period of 80 months or 6.7 years.
3. The third office building (13,960 m² constructed area plus commercial area of approximately 5,400 m²) will be built in Phase 3. The expectation is that the investment for the third office building will total 12,045,000 EUR; monthly revenues are estimated at 149,760 EUR. This translates into a Return on Investment/Payback Period of 81 months or 6.7 years. The total investment for the three office buildings is estimated at 33,135,000 EUR; the monthly revenue is estimated at 413,280 EUR, with a Return on Investment/Payback Period estimated at 81 months or 6.8 years.

Conclusion

It is not uncommon for real estate developers to prioritize financial analyses to inform their portfolio strategy. This is because real estate investments, particularly of the industrial and commercial types, involve significant amounts of money. Also, financial analyses are essential for real estate development and investment because the market is inherently risky. These risks are diverse in nature but could impact the potential of a project to be profitable. In spite of these risks in real estate, there are many opportunities for extraordinary returns. REC has found such opportunities in the real estate market of Burgas, Bulgaria, which is currently experiencing a shortage of developed property supply against a high demand. Presented in this capstone study is the financial analysis for the Project, which shows immense potential for profitability.

References

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