



Master Thesis

Comparison of Conditions for Managing Residential Development Projects in the Czech Republic and Germany

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Srovnání podmínek pro řízení rezidenčních developerských projektů v České republice a Německu

Anotace

Diplomová práce Srovnání podmínek pro řízení rezidenčních developerských projektů v České republice a Německu analyzuje a porovnává dva trhy a na základě vyhodnocení srovnání doporučuje, na který trh by měla vstoupit nová firma v oblasti rezidenčního developmentu. První část práce je teoretická a definuje rezidenční development, popisuje fáze procesu rezidenčního developmentu podle různých autorů a představuje PESTLE analýzu jako důležitý nástroj pro analýzu trhu. Druhá část je analytická a začíná PESTLE analýzou obou trhů, pokračuje srovnáním, vyhodnocením a doporučením. Poslední kapitola představuje model fází řízení rezidenčního developerského projektu na základě teoretické rešerše a rozhovorů s experty.

Klíčová slova

Česká republika, komparace, Německo, PESTLE analýza, realitní trh, rezidenční development

Comparison of Conditions for Managing Residential Development Projects in the Czech Republic and Germany

Annotation

The diploma thesis Comparison of Conditions for Managing Residential Development Projects in the Czech Republic and Germany analyzes and compares two markets and based on the evaluation of the comparison, recommends on which market a new company in residential development should enter. The first part is based on a theoretical review that defines residential development, describes phases of the residential development process according to various authors, and introduces PESTLE analysis as an important market analysis tool. Second part opens with the PESTLE analysis of both markets, continues with comparison and evaluation, and concludes with recommendation. The last chapter presents the model of phases for managing residential development projects based on literature review and expert interviews.

Key Words

Comparative Study, Czech Republic, Germany, PESTLE Analysis, Real Estate Market, Residential Development

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List of Abbreviations

| | |
|------|--|
| BIM | Building Information Modeling |
| CZ | Czech Republic |
| DE | Germany |
| DESI | Digital Economy and Society Index |
| EIA | Environmental Impact Assessment |
| EU | European Union |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| ICT | Information and Communication Technology |
| IT | Information Technology |
| NCS | National Center for Construction 4.0 |
| OECD | Organization for Economic Co-operation and Development |
| R&D | Research and Development |
| SPE | Special Purpose Entity |
| SPV | Special Purpose Vehicle |
| VAT | Value Added Tax |

Introduction

In today's constantly changing urban landscapes, real estate development and especially residential development, is a key sector for growth and innovation. To navigate this dynamic field, it is essential to have a deep understanding of the fundamental principles that underpin residential projects, as well as a strong awareness of the specific conditions that influence development outcomes in different markets.

The management of residential development is crucial globally. However, the framework and conditions affecting it vary significantly from one country to another. Therefore, it is necessary to apply experiences and best practices from one nation to another with caution. While some strategies and insights may be universally beneficial, others may require adaptation to align with specific regulatory, economic, and cultural contexts.

The main goal of the thesis *Comparison of Conditions for Managing Residential Development Projects in the Czech Republic and Germany* is to analyze and compare the conditions for managing residential development projects in the Czech Republic and Germany and based on evaluation of this comparison, to provide a recommendation on which of these markets the new company in residential development should enter. Based on the literature review, and expert interviews, model of phases for managing residential development projects will be created. This thesis can potentially serve as a guide for new companies in the field of residential development during their early stages of international business.

The first part of the thesis is theoretical and provides a definition of residential development and its specifics and defines residential development as a project. It further describes how different authors view the phases of residential development projects. The final part of the theoretical review includes a description of PESTLE analysis, an important tool for analyzing the Czech and German markets.

The second part of the thesis is analytical. It opens with a description of the insights from expert interviews, continues with a PESTLE analysis of the Czech and German markets, followed by a comparison of the conditions in both markets. It concludes

with an evaluation and recommendation on which market a new company in the residential development should enter. In addition, the thesis proposes a model of phases for managing a residential development project based on a theoretical review and expert interviews. During the process of writing this thesis, the text was edited and formulated with the assistance of the artificial intelligence tool ChatGPT 4.0. However, it should be noted that this tool was used in accordance with its limitations and that all content was subject to critical evaluation.

1 Residential Development

Firstly, it is essential to clarify the distinction between real estate development and residential development. Real estate development is a broad term that encompasses for example the development of commercial properties, infrastructure, and residential spaces. Residential development, on the other hand, specifically refers to the development of sites intended for living.

Residential development plays a crucial role in the formation of the built environment, influencing how individuals inhabit and operate within these spaces, thereby facilitating the progression of human endeavors. Globally, the trajectory of residential development mirrors the current societal requirements and market forces specific to various regions. (Squires and Heurkens, 2015)

In the forthcoming chapters, residential development and its specifics will be defined. Subsequently, the critical phases of the residential development process according to various authors will be introduced.

1.1 Definition and Specifics of Residential Development

The role of a residential developer is notably diverse, embodying a complex enterprise that includes everything from acquiring, renovating, and renting existing structures to buying undeveloped land and selling developed sites. Developers are the driving force behind these tasks, turning conceptual designs into tangible assets and converting properties into elements of urban development. They envision, fund, and manage the developmental journey from its inception to completion. Often bearing the highest risks in residential creation or refurbishment, developers also stand to gain the most significant benefits. (Peiser and Hamilton, 2012)

The residential development process starts with an initial thought. It is not initiated by the analysis of financials, nor does it always start with a specific location in mind. Instead, it springs from an idea. This underscores the inherently creative nature of the process. Interestingly, individuals with a background in creative fields, such as film or television production, frequently find success when they transition into the

realm of residential development, thanks to the sector's demand for inventive and innovative thinking. (Peca, 2009)

The process is characterized by both its complexity and variety: it is intricate due to the presence of numerous entities, both public and private, of varying sizes, engaging in development through diverse organizational structures and legal frameworks. It is also marked by its diversity, encompassing a broad spectrum of businesses spanning different industries, each with unique goals, objectives, and operational approaches. Additionally, the industry is known for its risk, cyclical nature, stringent regulations, and prolonged production timelines. It encompasses three primary categories of participants: consumers, creators, and public infrastructure providers. This complex system of interactions and relationships needs careful analysis and comprehension, enabling the residential development process to be steered in a manner that maximizes benefits for all parties involved and where creativity is important not only at the absolute beginning of the process, but also in all the next steps as it is main driving force in solving problems and finding effective and valuable solutions. (Ratcliffe et al., 2021)

Miles et al. (2015) mentions that every development project fundamentally operates as an independent business venture, utilizing the three primary elements of production: land, labor, and capital, to produce a tangible outcome. The transformation of a concept into a concrete entity is achieved through the strategic coordination of these resources under entrepreneurial management, executed by collaborative teams.

The generation of value stems from furnishing space that addresses societal demands. While the basic premise of residential development is straightforward, the intricacies of the process are amplified by the evolving dynamics of local governments, financial sectors, and consumer preferences. (Olsson et al., 2015)

As indicated in the previous paragraphs, most of the time, developers establish a new company for every new project. This system is called special purpose vehicle. A special purpose vehicle (SPV), or special purpose entity (SPE), is formed by a parent company as a subsidiary to prevent a range of risks. Its legal status as an independent company ensures that its obligations remain safeguarded, even if the

parent company faces bankruptcy. Similarly, this arrangement protects the parent company from operational and legal challenges, if the SPV encounters failure or goes bankrupt. This structure effectively shields the parent company from the potential problems associated with the SPV's project-related difficulties. (Hayes, 2024)

According to Morr & Co (2022), main reasons for developers creating new companies for every project are as follows:

- **Liability Separation:** By setting up a new company for each project, developers can isolate legal liability. If a project faces legal challenges or goes bankrupt, this structure can protect the developers' other assets and projects from being affected.
- **Financial Clarity and Simplification:** Separate companies can make financial management easier, allowing for clear tracking of expenses, revenues, and profitability on a project-by-project basis. This can be particularly useful for projects with distinct financial backers or for simplifying tax obligations.
- **Risk Management:** Creating separate entities for each project helps in distributing risk. If one project fails, it won't directly impact the financial health of the other projects or the parent company.
- **Investor Attraction:** Some projects may require specific investor expertise or financial contributions that are unique to that venture. Setting up a separate company can make the project more attractive to investors by offering them a direct stake in the project and clearer insight into its financial planning.
- **Regulatory Compliance:** Certain types of projects might have unique regulatory requirements or might benefit from incentives offered to businesses in specific jurisdictions. By creating a new company, developers can more easily comply with these requirements or take advantage of these benefits.
- **Branding and Marketing:** A new company can be branded specifically for the project, helping to tailor marketing efforts and build a brand identity that resonates with the target audience without conflicting with the brands of existing projects.
- **Exit Strategies:** Separate companies provide more flexibility for exit strategies. It's easier to sell or spin off a project if it's housed in its own entity.

Because residential development is capital intensive industry, financial support is crucial for the projects, necessitating a series of negotiations among various stakeholders. Developers engage with public sector officials to secure approvals, modify zoning laws, comply with building codes, and ensure infrastructure provision. The influence of community and special-interest groups is growing, underscoring extensive public engagement, discussions with governmental bodies, and securing financing as integral steps in project appraisal. The project can only proceed to the physical construction phase, involving designers, engineers, and construction personnel once these preparatory tasks are well planned and arranged. Completion of the project involves leasing or selling the developed space, a process managed by marketing experts, graphic designers, sales professionals, web developers, and other key players to attract customers. Throughout this process, the developer's goal is to manage each component efficiently, ensuring adherence to timelines and budget constraints. (Miles et al., 2015)

In conclusion, residential development is not only a multifaceted process involving the construction, management, and enhancement of residential properties and communities, but is fundamentally a project. Driven by various social, economic, and environmental factors, it decisively shapes urban landscapes, supports population growth and modernization, and embodies the essence of project management in the real estate sector.

1.2 Residential Development as a Project

Before delving into phases of residential development projects, it is important to clarify what is a project according to project management theory. Doležal et al. (2016) defines project as: *"A unique process limited in time, costs, and resources, carried out with the purpose of defined outputs (the scope of fulfilling project objectives) in the required quality and in accordance with valid standards and approved requirements."* Given this definition, it becomes clear that a project is essentially a structured process, inherently organized into distinct phases.

In project management, those phases can be defined as follows (Kerzner, 2022):

- **Concept Design:** Establish main goals, evaluate impacts, estimate costs and timeline, and conduct risk analysis.
- **Project Definition:** Refine objectives and methodologies, identify resources, set a realistic budget and timeframe, define risks and mitigation strategies, and prepare detailed implementation plans.
- **Production:** Implement the project, manage tasks and budgets, ensure quality control, achieve goals, and test outcomes.
- **Operational Period:** Integrate the project into existing systems, assess impacts, and gather feedback for future projects.
- **Project Disposal:** Transition the project to support stages, reallocate resources, and compile lessons learned.

Understanding these fundamental phases in the context of project management lays the groundwork for applying these concepts specifically to residential development projects. While this general framework provides a blueprint for managing any project, residential development presents unique challenges and opportunities that tailor these phases to meet the complex demands of creating livable spaces.

Moving on to the specific phases of residential development, the next chapter will explore how various authors see and describe the development process and its phases. It will serve as a literature background for creating the model of phases in analytical part of the thesis.

1.3 Phases of Residential Development Project

Residential development is a business that seeks to meet market demand by utilizing the essential factors of production: land as the foundation, labor for design, construction, and management, and capital to finance the operation. Succeeding in this field requires the skill, intuition, and perseverance of the developer to effectively integrate these components into a project. The development of residential properties can be seen as a continuous process, from the initial concept to project completion, which includes several phases. (Isaac et al., 2016)

All the above facts are the main reason why it is important to explore the residential development process. It is necessary to have a complex understanding of its various phases, as outlined by leading thinkers in the field. Next three chapters will review the perspectives of three key authors, aiming to highlight the different approaches to structuring these phases. The intention is not to prescribe a specific model but to present a spectrum of thought that informs broader understanding of residential development.

1.3.1 Eight Phases Process by Miles et al.

Miles et al. (2015) propose an eight-phases process for residential development, emphasizing its inherent complexity and non-linearity. This eight-phases process is applicable to both new projects and the redevelopment of existing ones. The authors suggest that residential development requires a combination of art, logic, and intuition, and success depends on creativity and drive. Key points to consider in residential development include constant consideration of subsequent phases throughout the process, the importance of asset and property management post-construction, and the dynamic and interdisciplinary nature of development. The work also highlights the global context of residential development, underscoring the influence of international factors on local development practices.

The Table 1 presents the eight phases of the development project according to Miles et al. Each of those phases will be further described.

Table 1: Phases of the Development Project According to Miles et al.

| Phase number | Phase title |
|--------------|---|
| 1. | Idea inception |
| 2. | Idea refinement |
| 3. | Feasibility |
| 4. | Contract negotiation |
| 5. | Formal commitment |
| 6. | Construction |
| 7. | Completion and final opening |
| 8. | Property, asset, and portfolio management |

Source: own processing according to (Miles et al., 2015)

The eight phases are described by Miles et al. (2015) as follows:

Idea Inception: The developer with a comprehensive understanding of the background and access to current market data can quickly identify potential market

needs and evaluate ideas efficiently, gauging the viability of each concept. In contrast, inexperienced or new developers may spend more time analyzing and generating ideas.

Idea Refinement: After identifying a suitable site for the proposed concept, the developer evaluates its physical feasibility and engages in discussions with potential tenants, landowners, investors, collaborators, and experts. If the concept appears viable after these preliminary evaluations, the developer finalizes an initial design and secures an option on the property, indicating readiness to advance the project based on the promising nature of the initial idea.

Feasibility: The developer carries out a comprehensive market analysis to forecast market absorption and capture rates. Additionally, a feasibility assessment is performed to determine the potential value of the project relative to its cost. The project plans are then submitted to public authorities for approval, confirming the legal, physical, and economic viability of the project to all parties involved.

Contract Negotiation: The developer finalizes the project design based on insights from the market study on user preferences and willingness to pay. The subsequent steps include negotiating contracts, securing a written loan commitment, selecting a general contractor, setting baseline rent or sales figures, and acquiring the necessary permits from local government authorities.

Formal Commitment: Interdependent contracts are completed together and include various agreements, such as joint ventures, construction and permanent loans, construction projects, land acquisitions, insurance, and preliminary leases.

Construction: The developer implements a formal accounting system to ensure expenses align with the budget. Approves adjustments recommended by the marketing team and the broader development group, mediates construction-related disagreements, executes financial transactions, strives to maintain the project's progress on schedule, and engages operational staff as needed.

Completion and Final Opening: The developer employs operational staff full-time and enhances promotional efforts. Once the city approves occupancy and

establishes utilities, occupants begin to move in. The process concludes with the payment of the construction loan and the closing of the permanent loan agreement.

Property, Asset, and Portfolio Management: The property owner, whether the original developer or a subsequent owner, manages the property. This includes tasks such as re-leasing, reconfiguring, remodeling, and remarketing the space as needed to prolong its economic lifespan and improve asset performance. Additionally, this phase encompasses the strategic management of fixed assets and takes into account considerations related to the portfolios of investors.

1.3.2 Eight Phases Process by Reed and Sims

Reed and Sims (2015) compare residential development to industrial production, where various inputs are combined over time to produce a changed land use or a new/altered building. The process is marked by profit generation and risk management, with the end product being fundamentally unique. The development process is divided into eight major phases, which may not always follow a strict sequence and may overlap or be repeated. The model considers the intricacies of property development, including the possibility of phases preceding or following other phases depending on the project type.

The Table 2 presents the eight phases of the development project according to Reed and Sims. Each of those phases will be further described.

Table 2: Phases of the Development Project According to Reed and Sims

| Phase number | Phase title |
|--------------|---|
| 1. | Initiation |
| 2. | Investigation and analysis of viability |
| 3. | Acquisition |
| 4. | Design and costing |
| 5. | Consent and permission |
| 6. | Commitment |
| 7. | Implementation |
| 8. | Leasing, managing, disposal |

Source: own processing according to (Reed and Sims, 2015)

Reed and Sims (2015) describe the phases of development project as follows:

Initiation: The first phase of property development is usually initiated by two main factors: identifying a site's potential for a new or more intensive use, or an increase in demand for a particular land use, which prompts the search for a suitable location. This stage is fundamental, as it establishes the direction for development by assessing the site's feasibility in relation to market requirements and legal limitations.

Investigation and Analysis of Viability: The investigation and viability analysis phase emphasize market research and financial analysis to ensure viability and minimize risks. It is essential for project planning, involves the evaluation of various scenarios to avoid financial losses. Despite potential costs, acquiring detailed property data is vital for informed decision-making. The outcome determines whether a project proceeds, highlighting the importance of flexibility and continuous viability re-assessment throughout the development process.

Acquisition: Before acquiring a site for development, it is crucial to take certain steps. These include conducting a legal review to identify any limitations or legal constraints, performing a detailed physical inspection to ensure that the site is suitable for the intended development, and arranging financing on favorable terms. These steps are crucial in reducing risks before the developer proceeds with acquiring and purchasing the property or land.

Design and Costing: During the design and costing phase, initial estimations and basic designs are created to align with budget and the customer's needs. Preliminary designs enable initial cost estimations. The process progresses from conceptual proposals to detailed plans, requiring coordination and input from various stakeholders. This stage is critical for establishing the project's financial and architectural framework, with the final design reflecting a balance between market demands, practical feasibility, and the developer's vision.

Consent and Permission: The process of obtaining consent and permission for a project is multifaceted. It typically begins with securing planning consent from the local planning authority, especially when a change of use for the land is involved. This process requires in-depth knowledge of local legislation and planning authority

operations, often requiring the services of consultants. Furthermore, developers may need to negotiate planning agreements with the local authority, which can result in additional costs and affect project viability.

Commitment: Before making a significant investment in physical development, it is crucial to conduct due diligence, which includes site decontamination and acquiring statutory permissions. This preparatory phase enables developers to reevaluate the feasibility of the project, especially considering changing economic conditions or market preferences. To minimize financial risks, developers keep initial costs low until they secure full site access. Contracts for development are then quickly finalized in this phase to reduce risks and prevent delays.

Implementation: The implementation phase finalizes the original design, construction plans, and associated costs. This stage emphasizes executing the development on time and within budget, with a strict focus on maintaining quality without taking shortcuts. Flexibility in design and construction is minimized to avoid project uncertainty, necessitating skilled project management to anticipate and address issues promptly, ensuring smooth progress. Continuous monitoring of the market ensures that the final product meets current demands.

Leasing, Managing, Disposal: In the entire process, developers plan for leasing, managing, and selling properties well before the final phase to ensure profitability and viability. During this phase, they decide whether to sell or retain the property, influenced by market conditions and investment objectives. Effective post-completion management ensures that the project meets market needs, with real estate agents playing a key role. Continual communication with occupiers identifies issues that are critical to the success of the development and the developer's reputation. Ultimately, the financial viability of the project is evaluated through initial leasing or sales.

1.3.3 Five Phases Process by Ratcliffe et al.

Ratcliffe et al. (2021) focus on the inefficiencies and interdisciplinary nature of the residential development process and discuss the shift towards cooperative and partnership approaches in the industry, driven by the need for efficiency and the

integration of technologies like AI. The authors outline five phases for procuring successful projects, from verifying the need to post-project review, emphasizing the importance of a comprehensive approach to the development process, incorporating considerations like market research, design, contract negotiation, and project management to mitigate risks and ensure success.

The Table 3 presents the five phases of the development project according to Ratcliffe et al. Each of those phases will be further described.

Table 3: Phases of the Development Project According to Ratcliffe et al.

| Phase number | Phase title |
|--------------|--------------------------------------|
| 1. | Concept and initial consideration |
| 2. | Site appraisal and feasibility study |
| 3. | Detailed design and evaluation |
| 4. | Contract and construction |
| 5. | Marketing, management, and disposal |

Source: own processing according to (Ratcliffe et al., 2021)

The five phases of the development project are described by Ratcliffe et al. (2021) as follows:

Concept and Initial Consideration: The concept and initial consideration phase in property development is guided by the sector's goals: profit in the private sector and operational objectives in the public sector. Balancing potential returns against risks and uncertainties is key to this phase. The process is fundamentally driven by creativity. Successful developers are distinguished by their ability to foresee market trends and innovate, turning unique insights into viable development opportunities.

Site Appraisal and Feasibility Study: During the site appraisal and feasibility study phase, developers conduct in-depth analyses to ensure the project's viability, taking into account market dynamics, physical constraints, and potential risks such as land contamination. This includes detailed market demand assessments, cost and time estimations, and preliminary engineering reviews. It is crucial to engage with planning authorities and the community early on, while also navigating planning obligations and potential appeals. Financing arrangements are carefully planned to align with project goals and design considerations, emphasizing the importance of flexibility and strategic revisions in response to feedback and regulatory requirements.

Detailed Design and Evaluation: In the detailed design and evaluation phase, developers finalize their professional team and consider sustainability goals. Early decisions on sustainability are necessary to avoid later redesigns and costs. The team then prepares detailed drawings for planning approvals and budget forecasting. Adaptability is crucial in project planning and execution as changes may be needed at any stage, affecting various aspects of the project such as occupancy, design, and materials.

Contract and Construction: During the contract and construction phase, it is recommended to select a contractor early in the design process to balance cost and quality. This phase carries significant risks, such as unexpected soil conditions or contractor insolvency, which highlight the potential for unforeseen challenges. Developers should establish a management structure to facilitate efficient communication and supervision of contractual affairs, ensuring project viability and problem-solving throughout construction. This demonstrates the critical importance of risk management and proactive planning in this stage.

Marketing, Management, and Disposal: The timing and strategy of marketing campaigns are critical in the marketing, management, and disposal phase. The choice between a lease or sale contract aims to maximize returns. It is important to ensure site security and safety during construction to protect all visitors and comply with legal duties and regulations. Agent performance should be monitored, and financial arrangements may need to be reorganized, depending on development progress, market conditions, and the needs of tenants or purchasers. Economic downturns or significant events such as COVID-19 may necessitate the renegotiation of financial terms or planning obligations to adapt to changed viability assessments.

1.3.4 Summary of the Perspectives of the Authors

The two authors outline an eight-phase process for residential development but differ in their emphasis: Miles et al. focus on integrating art, logic, and intuition throughout the development process and emphasize the impact of the global context, while Reed and Sims compare the process to industrial production, emphasizing risk management and the uniqueness of the final product. Ratcliffe et al. propose

a streamlined five-phase approach, prioritizing efficiency, and technology integration. These differences highlight the varying priorities in development, from creative conception to practical implementation and market adaptation.

This theoretical review, accompanied by expert interview, will serve as the basis for creating the model of phases in the last chapter of this thesis. The next chapter will describe the PESTLE analysis tool, which will be used to analyze the Czech and German markets.

2 Market Analysis Tool – PESTLE

The PESTLE analysis framework covers six macroeconomic categories. The tool helps companies to identify macroeconomic factors that could impact business development in the specific market, distinguishing between opportunities and risks. Additionally, PESTLE facilitates scenario planning based on these variables, enabling more accurate future predictions and informed decision-making to secure long-term interests. (Marmol and Feys, 2015)

The Table 4 presents the six macroeconomic categories that are included in the PESTLE analysis.

Table 4: PESTLE Analysis

| | |
|----------|----------------------------|
| P | Political environment |
| E | Economic environment |
| S | Socio-cultural environment |
| T | Technological environment |
| L | Legal environment |
| E | Environmental environment |

Source: own processing according to (Marmol and Feys, 2015)

The following chapters will briefly describe each category of the PESTLE analysis. Furthermore, the thesis will use the PESTLE tool to analyze the conditions in the markets of the Czech Republic and Germany.

2.1 Political Environment

The political environment and its constant evolution directly influence all decision-making processes in marketing and business. Therefore, it affects all organizations and individuals in every society and regulates them in a certain way. Regulation is crucial for the proper functioning of almost every system. When applied appropriately, it ensures a market environment with equal conditions for goods and services, while also promoting the development of a competitive environment. For this reason, governments create public policies aimed at establishing laws and regulations that regulate and direct commerce to a certain extent. (Hill et al., 2019)

Political factors that can affect the company include policy shifts or new initiatives, the level of state interventions, corruption, or changes in government. While these

changes may originate within a single country, the interconnected nature of global trade and the influence of international bodies such as the European Union mean that political actions often have a wider, cross-border impact. The rise of multinational organizations further expands the scope of political considerations and increases the likelihood that political issues will affect an organization's operations. (Cadle et al., 2014)

2.2 Economic Environment

The economic environment of a business comprises trends and tendencies that create entrepreneurial opportunities, influencing the purchasing and consumption behavior of each entity within the market and determining the overall utilization of resources. It includes numerous influences that impact the purchasing power and spending of all citizens, with the level of purchasing power resulting from the economic conditions faced by individuals and businesses. (Hill et al., 2019)

A fundamental and crucial characteristic of the economic environment is the ability to measure the size and specific features of a foreign market. The market size provides an opportunity to assess its potential, which is crucial for determining whether individual products can succeed in the market. Marmol and Feys (2015) identify several key variables that help in understanding the economic environment as follows:

- Business cycle
- Growth rate
- Interest rate
- Country GDP
- Taxation rates
- Inflation rate
- Unemployment
- Purchasing power

These indicators are evaluated by public or private institutions and are generally accessible. Analyzing these indicators can provide valuable insights. For instance, if

a business decides to enter a market in a country with low population growth and high unemployment rates, it can be assumed that it will achieve relatively low sales of its product. Therefore, it is crucial for businesses to monitor the economic competitiveness of different countries. Globally, there are institutions that evaluate economic competitiveness. Countries are categorized into groups based on their level of economic development. This assessment is a crucial tool for companies when selecting a foreign market and entering it. The economic development of a specific country plays a vital role in the whole process, as it directly influences the potential success or failure of a business in the selected market. (Hill et al., 2019)

All the above facts and information point to the importance of continuously monitoring key economic indicators, especially those directly related to the specific sector. The economic environment is complex, and it is difficult to predict future developments. As a result, companies should focus primarily on factors that have a significant impact on their operations.

2.3 Socio – Cultural Environment

The social and cultural environment shapes consumer attitudes and values. Numerous institutions and factors within this environment influence consumer behavior, attitudes, and preferences. Each society has different values, experiences, customs, and traditions that influence the attitudes and thought processes of people within a country. Therefore, companies need to understand and adapt to the social and cultural specifics of their target market, adjusting not only their marketing activities but also their overall business strategies. (Kotler et al., 2013)

When analyzing the socio-cultural environment, companies should examine demographic trends, lifestyle changes, and societal values. This also includes understanding age distribution, education levels, religion, and cultural norms. Attention should also be paid to emerging social movements and trends in consumer behavior, as these can have a significant impact on product demand and brand perception. By engaging in this comprehensive analysis, companies can anticipate shifts in consumer needs and preferences and better align products and services with market expectations. (Marmol and Feys, 2015)

In summary, understanding cultural and social norms allows companies to anticipate potential challenges or opportunities in specific markets. It provides an opportunity to gain customer trust while establishing clear rules of interaction.

2.4 Technological Environment

In recent decades, technology has become an integral part of our lives, fundamentally changing the way we live. For companies conducting macro environmental analysis, it's important to take a close look at the technological environment. A primary measure for companies is the level of technological development of a country, as it has a significant impact on the market they intend to enter. (Hill et al., 2019)

Technological environment includes advancements in two main areas: information technology (IT) and industry-specific technology. These changes are crucial for businesses to monitor and adapt to, as they can significantly impact operations and market dynamics (Cadle et al., 2014). According to Perera (2018), some other key variables that a company should follow in the technological environment are:

- Innovations in specific industry
- Investment in R&D
- New discoveries and patents

In conclusion, in today's rapidly evolving, technology-driven world, a company's ability to adapt is critical to its success. Staying informed of all developments within the industry, from technological advancements to their future implications, is essential.

2.5 Legal Environment

The legislative environment in which a company operates defines its operational landscape. Regulatory changes, both new regulations and deregulation, can have a major impact on companies and entire industries. Such changes have been seen in well-established industries as utilities and airlines and are equally important to all other industries. (Amason and Ward, 2021)

Legislation varies widely from region to region, making it critical for companies to understand. In addition, knowledge of tax policies can guide companies in selecting countries in which to operate, optimizing the company's financial and operational strategy. (Ort, 2019)

In summary, keeping informed of local regulations, such as labor, trade, and construction laws, is critical to protecting a company from legal issues and operating effectively within legal boundaries. For example, construction law can have a significant impact on developers, as the extensive regulatory environment and required approvals can extend timelines and affect project feasibility and profitability.

2.6 Environmental Environment

The importance of environmental impact is being increasingly recognized by companies, driven by consumer awareness of climate change and its link to production. This awareness has led to increased consumer demand for companies to actively reduce their carbon footprint. As a result, many companies have made a commitment to reducing their environmental impact by setting ambitious sustainability goals to improve not only their environmental performance, but also the well-being of their customers and employees. (Amason and Ward, 2020)

To navigate this category, companies are advised to focus on key environmental variables such as environmental standards, renewable energy, and waste management practices that are important to align with sustainability goals. (Perera, 2018)

In the next chapter, the above-described PESTLE analysis will be used as a tool for analyzing the conditions for managing residential development projects in the Czech Republic and Germany.

3 Analysis of Conditions for Managing Residential Development Project in Czech Republic and Germany

In this chapter, the markets of the Czech Republic and Germany will be analyzed using PESTLE analysis, which will provide characteristics and information about both markets in terms of residential development and housing. This analysis is a fundamental component of the analytical part of this thesis and the comparison of the markets. To effectively analyze the markets, compare the conditions, evaluate them, and make recommendations, insights from expert interviews will be used. Furthermore, these insights will also be used for creating the model of phases for managing residential development project in the last chapter of this thesis. Interviews were conducted with Jan Stoklasa, who is the CEO of Genio development, s.r.o., a development company from the Czech Republic, and another person with vast experience in the German market who wished to remain anonymous.

For a better understanding of the implementation of the experts' insights into the analytical part of the thesis, it is essential to provide a summary of the insights and conclusions from the interviews. According to the personal communication (2024) with the above-mentioned experts, important insights and facts about both markets are as follows:

Key Factors Influencing Project Success: Development projects are most significantly influenced by a combination of the legal environment, economic cycles, interest rates, market trends and consumer preferences, and real estate market dynamics. In both the Czech Republic and Germany, the regulatory framework and permitting processes are critical and often pose significant challenges. In Germany, the approval process can take up to two years, reflecting strict regulatory conditions. In the Czech Republic, complex and lengthy permitting processes, compounded by bureaucratic inefficiencies, pose significant barriers, and can take up to several years in the worst cases. Despite efforts to implement new laws and digital solutions to streamline these processes, their effectiveness remains questionable in both countries.

Strategic Marketing and Sales: Effective timing of marketing and sales initiatives is essential throughout the development project lifecycle. It's beneficial to align marketing and sales activities with the project's progress. The early stages, before building permits are obtained, are ideal for promoting pre-sales and attracting customers with introductory prices and reservation agreements that require minimal commitment fees. These early commitments provide valuable information about market interest and maintain flexibility, benefiting both clients and developers. Once building permits are secured, the marketing approach should shift to actively promoting sales, highlighting the potential for price increases that can motivate customers to engage during the pre-sale phase. This strategy should continue until the project meets its pre-sales targets, adjusting as necessary based on evolving market conditions.

Value Addition and Customer Attraction: Strategic location choices are essential as they align with consumer preferences for comfort and lifestyle. Practical apartment layouts that optimize living space and functionality directly address consumer needs and enhance a property's appeal. In addition, the provision of desirable features such as basements for extra storage, secure garages for vehicle security, and well-maintained green spaces for recreation increases the attractiveness of residential projects. These features can improve the quality of life for residents, but also increase the marketability of the project.

Managing Risk During the Development Process: The pre-approval phase is the riskiest because of the potential for lengthy permitting processes that can seriously impact financial planning and project schedules. To effectively mitigate these risks, developers must employ a highly skilled team that can navigate complex regulatory environments and anticipate market shifts. Developing robust plans for different market scenarios is critical to maintaining operational flexibility and responsiveness. In addition, maintaining an awareness of the competitive landscape is important for making timely adjustments to strategies to ensure they remain aligned with evolving market expectations and regulatory frameworks.

For the analysis of conditions in the Czech and German markets, the PESTLE structure was modified according to the insights from expert interviews to provide relevant data on residential development and housing.

The Table 5 presents the PESTLE structure for the purposes of this thesis. In each environment, there are specific sections that will help navigate the analysis of both markets.

Table 5: PESTLE Structure

| PESTLE structure | |
|---|--|
| Political environment | Economic environment |
| Government policies on housing Housing regulations | Key economic indicators Economic forecast Taxation |
| Socio-cultural environment | Technological environment |
| Demographic trends and urbanization Customer preferences and behavior Market trends | DESI index Innovations in construction |
| Legal environment | Environmental environment |
| Construction law Bureaucracy level | Environmental regulations |

Source: own processing according to (Personal communication, 2024)

The following chapters will explore each environment and sections of the PESTLE analysis, beginning with an analysis of the Czech Republic. This examination will highlight the specific political, economic, socio-cultural, technological, legal, and environmental factors that shape the residential development landscape in each country.

3.1 Czech Republic – PESTLE

Czech Republic is a European country with a population of 10.9 million and its capital city is Prague. The country covers an area of 78,867 km² and shares borders with Poland to the north, Slovakia to the east, Austria to the south, and Germany to the west. (European Union, 2024)

3.1.1 Political Environment

Czech Republic operates as a parliamentary republic, with a prime minister serving as the head of government and a president as the head of state. The country was established in 1993 following the split of Czechoslovakia into the Czech Republic and Slovakia. Currently, the country is divided into 14 regions, including Prague. (European Union, 2024)

The current government of the Czech Republic is a coalition led by Prime Minister Petr Fiala of the ODS. The coalition includes five parties: ODS, the Pirate Party, TOP 09, the Christian Democratic Union (KDU-ČSL), and the Mayors and Independents (STAN). The president of the Czech Republic is Petr Pavel. (Government of the Czech Republic, 2024)

For understanding of the political environment of the Czech Republic regarding residential development, the following sections provide description of governments policies and regulations in the housing market.

Government Policies on Housing

To understand the current government policies, it is important to consider the context of the actual situation in the Czech housing market. In Czech Republic, a significant proportion of households, particularly in urban areas, face difficulties in accessing affordable housing. House prices have grown faster than household disposable income. While the rise in house prices benefits the significant number of Czech homeowners, it poses considerable challenges for new entrants, especially young people, trying to buy their first home. At the same time, rents have also risen, and the private rental market, constrained by relatively limited supply, offers few affordable housing alternatives for those in need. (OECD, 2021)

Czech Republic has a housing policy that is designed to create a favorable legal, institutional, and fiscal environment for all actors in the housing market. The government provides support for vulnerable groups that are unable to secure housing on the market through a variety of programs and financial aid. There is the government-approved housing policy concept, which is a strategic document for all ministries. It sets the basic directions for the development of housing and specific objectives in this field. The objectives of the housing policy are achieved through legal regulations and supportive housing instruments, including programs financed from the State budget through the Ministry of Regional Development of the Czech Republic and financial aid from the State Investment Support Fund. (MMR, 2024)

The primary instruments of the housing policy are the housing allowance and the housing supplement. The housing allowance provides financial assistance for rental

and housing expenses to approximately 200,000 beneficiaries. For households that still struggle to meet basic needs despite receiving the housing allowance, the housing supplement offers additional support. These measures are designed to enhance housing affordability and assist households that are unable to independently secure housing in the market. (OECD, 2021)

Another topic that the current government is targeting is social housing. In the Czech Republic, social housing is understood to be municipally owned housing that is allocated based on criteria decided by the municipality. The social housing stock in the Czech Republic is too small to meet the demand of all low-income households. The municipal rental sector was created after 1991 by transferring state-owned dwellings to municipalities, but municipalities then privatized a major part of their housing stock due to a lack of financial and human resources for maintenance. Social rental dwellings account for only 0.4% of the total number of dwellings in the Czech Republic. The shortage of social housing is also evident in the long waiting lists of aspiring tenants applying for social housing, with a median wait time of 24 months and, in 18% of municipalities, it can reach 60 months or longer. (OECD, 2021)

To address the issue of social housing, the government has implemented various programs. For example, the Ministry of Regional Development, has announced support for social housing with a total budget of 1.9 billion CZK (approximately 76 million EUR) sourced from the European Fund for Regional Development. This financial support is designated for municipalities, regions, churches, and nonprofit organizations, which can receive grants covering 70–85% of the costs for construction, reconstruction, or acquisition of housing units. The conditions of the program have been revised to take into account the current rise in construction labor and material costs. The goal of the program is to provide housing for people in need who do not own property and whose incomes do not exceed the average pension. This program may be the last opportunity to secure such a high level of funding, with a future transition to favored loans. (MMR, 2024)

In conclusion, the Czech government is attempting to address the critical issues of housing affordability and availability through comprehensive policy measures. By increasing the availability of financial aid, revising the conditions of support programs, and expanding the social housing sector, the government aims to create a more

balanced and accessible housing market. This is especially crucial in urban areas where the gaps between income growth and housing costs are most evident.

Housing Regulations

Housing regulations in the Czech Republic can be considered moderately market-friendly, as for example rent regulations allow for some flexibility in how landlords can adjust rental prices. This is primarily influenced by the type of contract and market conditions. Generally, most rental contracts, especially in Prague, are agreed upon for a duration of one year. Landlords have the right to renegotiate the rent at the end of each term, which can lead to significant increases depending on the market conditions. This flexibility allows landlords to adjust rents in response to inflation and other economic factors. It also permits tenants to relocate if they find the new terms unfavorable. Another important fact is that for example in case of eviction, this process can take more than one year, which can be considered as a negative effect for landlords. (Expats.cz, 2023)

Above mentioned means, that market-friendly nature of Czech rent regulations can be seen as both positive and negative. On the positive side, it helps keep the rental market dynamic and responsive to economic changes, potentially leading to better-maintained properties and a more competitive market overall. However, this can also lead to instability for tenants who may face significant rent increases at the end of each lease term, making housing affordability a concern for many, especially in high-demand areas like Prague.

In response to the negative effects of the current market-oriented regulations, the Czech government has proposed modifications to the rental housing market, including the introduction of a minimum rental period of three years and the possibility of rent increases linked to property improvements. These changes are intended to provide greater stability for both tenants and landlords, while encouraging property owners to renovate and make their properties more energy efficient. In addition, the proposed changes would allow landlords to terminate indefinite rentals without cause on an 18-month notice. Tenants would also be able to challenge unfair rent increases more effectively. These are currently just proposals and require further discussion with relevant stakeholders. (Štuková, 2023)

In summary, the proposed changes to the Czech rental market regulations aim to balance tenants' needs for stability with landlords' flexibility. By introducing a minimum rental period and tying rent increases to property improvements, the policy seeks to achieve mutual benefits. However, these regulations also raise questions about their impact on market dynamics and investment incentives. Careful consideration and stakeholder engagement are essential to ensure that these reforms support a dynamic and balanced housing market.

3.1.2 Economic Environment

Czech Republic, a medium-sized, open, and export-oriented economy, is highly dependent on foreign demand, especially from the Eurozone. About 70 % of its exports go to other EU member states, with Germany alone accounting for 26 %, making it the Czech Republic's largest trading partner. (International Trade Administration, 2023)

The economic environment of the country will be analyzed by describing key economic indicators both in general and in the context of residential development, economic forecast, and taxation.

Key Economic Indicators

The table below provides an overview of the Czech Republic's economic indicators from 2018 to 2022, including fluctuations in GDP, inflation, unemployment, capital investment and foreign direct investment inflows.

GDP is the sum of gross value added by all resident producers in the economy, inflation is percent change in the consumer price index, unemployment refers to the share of the labor force that is without work but available for and seeking employment, capital investment is the total expenditure on fixed assets—such as improvements to land, purchases of machinery and equipment, and construction of infrastructure—and inventory changes in an economy, and foreign direct investment inflows refers to direct investment equity flows to the reporting economy. (TheGlobalEconomy.com, 2024)

The Table 6 details key economic indicators for the Czech Republic from 2018 to 2022, highlighting the economic fluctuations.

Table 6: Czech Republic Economic Indicators: 2018-2022 Overview

| Year/Indicator | GDP, billions of U.S. dollars | Inflation rate | Unemployment rate | Capital investment, billion USD | FDI inflows, billion USD |
|----------------|-------------------------------|----------------|-------------------|---------------------------------|--------------------------|
| 2018 | 249 | 2.1 | 2.25 | 67.72 | 8.32 |
| 2019 | 252.55 | 2.8 | 2.02 | 69.72 | 10.75 |
| 2020 | 245.97 | 3.2 | 2.55 | 64.33 | 8.52 |
| 2021 | 281.79 | 3.8 | 2.8 | 85.15 | 12.89 |
| 2022 | 290.57 | 15.1 | 2.22 | 93.41 | 10.53 |

Source: own processing according to (TheGlobalEconomy.com, 2024)

The gradual increase in GDP from 249 billion USD in 2018 to 290.57 USD billion in 2022 shows a solid economic trajectory, even considering a dip in 2020 due to the COVID-19 pandemic. The most noteworthy figure in 2022, however, is the inflation rate, which spikes to 15.1%. This spike is largely due to global geopolitical tensions, particularly the war in Ukraine, which has disrupted supply chains and increased energy prices worldwide. Such inflation pressures could reduce consumer purchasing power and increase the cost of living.

The real estate market, often seen as a safe place for investors in times of economic uncertainty, has also been affected in 2022. Rising inflation generally leads to higher interest rates, which in turn can cool real estate markets by increasing the cost of mortgage financing. Despite these challenges, low unemployment rates (approximately 2 to 3 %) indicate that the labor market remains robust, potentially absorbing some of the economic shocks experienced in other sectors.

The Table 7 presents a quarterly overview of the indicators important for residential development in Czech Republic in the years from 2018 to 2023.

Table 7: Trends in Economic Growth, Property Prices, and Credit Rates in the Czech Republic (2018-2023)

| Year/Quarter/Indicator | | Economic growth, % change in quarterly real GDP | Real residential property prices Y-on-Y, % change | Business credit interest rate, % | Mortgage credit interest rate, % |
|------------------------|----|---|---|----------------------------------|----------------------------------|
| 2018 | Q1 | 4.7 | 5.62 | 2.83 | 2.35 |
| | Q2 | 2.8 | 5.66 | 2.88 | 2.5 |
| | Q3 | 2.7 | 6.29 | 3.13 | 2.55 |
| | Q4 | 2.6 | 7.65 | 3.52 | 2.78 |
| 2019 | Q1 | 3 | 6.86 | 3.68 | 2.95 |
| | Q2 | 3.1 | 6.25 | 3.76 | 2.8 |
| | Q3 | 3 | 5.72 | 3.80 | 2.62 |
| | Q4 | 2.8 | 5.74 | 3.80 | 2.37 |
| 2020 | Q1 | -1.5 | 4.82 | 3.69 | 2.42 |
| | Q2 | -10.8 | 4.5 | 2.84 | 2.3 |
| | Q3 | -5.2 | 4.9 | 2.55 | 2.1 |
| | Q4 | -4.6 | 6.16 | 2.55 | 2 |
| 2021 | Q1 | -1.9 | 10.93 | 2.55 | 1.95 |
| | Q2 | 9.2 | 13.92 | 2.56 | 2.07 |
| | Q3 | 3.8 | 17.3 | 2.78 | 2.3 |
| | Q4 | 3.4 | 18.5 | 3.91 | 2.75 |
| 2022 | Q1 | 4.7 | 11.93 | 5.27 | 3.82 |
| | Q2 | 3.4 | 5.63 | 6.31 | 4.92 |
| | Q3 | 1.3 | -1.69 | 7.25 | 5.75 |
| | Q4 | 0.1 | -7.58 | 7.32 | 6.03 |
| 2023 | Q1 | -0.2 | -13.46 | 7.36 | 6 |
| | Q2 | -0.1 | -12.47 | 7.39 | 5.98 |
| | Q3 | -0.6 | -10.69 | 7.41 | 5.87 |
| | Q4 | 0.2 | - | 7.40 | 5.77 |

Source: own processing according to (TheGlobalEconomy.com, 2024), (ČBA Monitor, 2024)

GDP percent change is the percent change in the gross domestic product from the same quarter last year using constant prices, real residential property prices Y-on-Y measures the annual change in residential property prices, business credit interest rate is the average interest rate on the loan products offered by commercial banks to non-financial corporations, and the mortgage credit interest rate is the average interest rate on mortgage loan products offered to individuals and households by the commercial banks in the country. (TheGlobalEconomy.com, 2024)

Table 7 shows significant fluctuations in economic growth, residential property prices, and credit rates in the Czech Republic from 2018 to 2023, providing a detailed view of economic indicators and their interrelationships. In 2020 and 2021, despite broader global economic challenges, the Czech real estate market experienced a notable boom. This boom was fueled by historically low interest rates, a strong cultural preference for property ownership, and a chronic undersupply in the market.

These factors combined to make real estate a highly attractive investment, driving up property prices as demand continued to outpace available supply.

However, the landscape changed significantly in 2022, influenced by global geopolitical tensions and economic pressures, particularly the war in Ukraine, which increased inflation and led to a significant rise in interest rates. This increase in borrowing costs cooled the previously booming real estate market, leading to a significant slowdown in property price growth. By 2023, the data show a slow decline in interest rates in the second half of the year, reflecting a stabilization in inflation rate, which returned to the inflation target of 2 % by early 2024, according to ČNB (2024).

The normalization of inflation and the associated decline in interest rates could signal a potential recovery or stabilization in the real estate market. As credit becomes more affordable and inflation moves closer to target, consumer confidence may improve, leading to renewed interest in property purchases. This could gradually unfreeze the real estate market and restart demand, especially if supply shortages remain unaddressed. The deferred demand that accumulated during the period of high interest rates and economic uncertainty may begin to emerge as buyers re-enter the market, potentially leading to a recovery in property prices. However, this recovery will be dependent on broader economic conditions, including continued stability in the global geopolitical situation and effective domestic economic policies.

Economic Forecast

In 2024, the Czech economy is expected to recover with growth of 1.4%. Private consumption, which has been declining for two years, is expected to increase again, while government consumption is expected to slow down due to the consolidation of public finances. In 2025, GDP growth is projected to accelerate to 2,6 % on the back of stronger dynamics in all components of domestic demand and more favorable international economic conditions. (MFČR, 2024)

Inflation, which approached the Czech National Bank's target of 2% in early 2024, is expected to remain below the upper limit of tolerance throughout the year. Previously strong pro-inflationary foreign supply factors have weakened significantly, and

pressures on domestic demand will continue to be reduced by higher monetary policy rates, further supported by the restrictive effects of a fiscal consolidation package. Average inflation is expected to decline to 2.7 % in 2024 and further to 2.4 % in 2025. (MFČR, 2024)

Taxation

The tax system in the Czech Republic is similar to that of other European countries and includes both direct and indirect taxes. Direct taxes in the Czech system include corporate and personal income taxes, real estate taxes, and road taxes. Indirect taxes include value-added tax (VAT), excise taxes, and environmental taxes. (MFČR, 2021)

The Table 8 presents the rates for personal income tax, corporate tax, and VAT.

Table 8: Personal Income Tax and Corporate Tax in the Czech Republic

| Personal Income Tax | | Corporate Tax | | |
|-------------------------|------------------------|---------------|-----|-------------|
| Under 48x the avg. wage | Over 48x the avg. wage | Corporate tax | VAT | |
| 15% | 23% | 21% | 21% | 12% reduced |

Source: own processing according to (PWC, 2024)

Other important taxes, according to (PWC, 2024), are as follows:

Real Estate Transfer Tax: The real estate transfer tax in the Czech Republic was cancelled in 2020.

Real Estate Tax: The real estate tax is an annual obligation for owners of land or buildings. The tax amount is determined based on the area, location, and usage of the property.

3.1.3 Socio – Cultural Environment

The socio-cultural environment of the Czech Republic will be analyzed by describing Demographic trends and urbanization, specifics of customer preferences and behavior, and important trends in the housing market.

Demographic Trends and Urbanization

The country has a large number of mostly small municipalities and a relatively even population distribution. The capital, Prague, has 1.3 million residents, and there are five other cities with more than 100,000 residents each. (European Commission, 2023)

Demographic trends are characterized by a low fertility rate and strong urbanization, as in 2022, fertility rate was 1.62 children per woman and 74.38% of population lived in urban areas. These factors highlight a shift towards smaller families and a preference for urban living, which will shape future urban development and demographic policies. (Statista, 2024)

There is an aging trend with significant shifts in population structure. In 2022, the pre-productive age group (0-14 years) accounted for 16.2% of the population, the productive age group (15-64 years) for 63.4%, and the post-productive age group (65 years and older) for 20.4%. Future projections indicate that the population will continue to age, mainly due to an increase in the number of older people, while the proportion of the population in the productive age group is expected to decrease. (European Commission, 2023)

Customer Preferences and Behavior

Consumers in the Czech Republic are keen to invest in real estate, driven by the potential for lucrative returns. In fact, an increasing number of individuals and families are choosing to buy homes instead of renting, as according to Hypoindex.cz (2022), share of owner-occupied housing in Czech Republic is 71,8%. That is a trend which is significantly increasing the demand for residential real estate throughout the country. Consumer behavior in the real estate market is characterized not only by a preference for buying over renting, but also by a cautious approach to investment. Czech consumers are known for their pragmatism and in-depth evaluation of properties before deciding to buy. They often prioritize long-term value in their housing choices, reflecting a deep-rooted desire for financial security and stability. (Statista, 2024)

Market Trends

A significant trend in the Czech real estate market is the increasing demand for residential property, especially in urban centers. This increase is primarily due to population growth and an uprising of people moving to cities in search of better employment opportunities, which has led to a shortage of affordable housing and a corresponding rise in real estate prices. In addition, there is a growing interest in commercial real estate, particularly in the retail and office sectors. Supported by a booming tourism industry and a flourishing business climate, the Czech Republic, and Prague in particular, is attracting a mix of local and international companies, increasing the demand for office and retail space. This demand is pushing up both rental rates and property values across the country. (Statista, 2024)

3.1.4 Technological Environment

The technological environment of the Czech Republic is analyzed by describing innovations in the construction industry and the DESI index report, which serves as an effective evaluation of technological progress in the country.

DESI Index

The Digital Economy and Society Index (DESI) was created by the European Commission to track and evaluate the digital performance of EU member states in key areas, such as connectivity, human capital, integration of digital technologies, and digital public services. DESI serves as a critical tool for EU countries to assess their digital competitiveness and identify areas requiring urgent attention. The index is updated annually and provides essential data to assist policymakers, businesses, and the public in making informed decisions about digital investments and strategies. (European Commission, 2023)

In the 2022 Digital Economy and Society Index (2022), the Czech Republic is ranked 19th out of the 27 member states of the EU. The DESI (2022) report shows Czech Republic's performance in specific areas as follows:

Human Capital: In the human capital dimension, the Czech Republic stands 15th out of the 27 EU countries, with a score in line with the EU average. 60% of the population in the Czech Republic have at least basic digital skills, above the EU average of 54%. However, when it comes to more advanced digital skills, the Czech Republic falls below the EU average, with 24% having such skills compared to 26% in the EU. While the share of ICT professionals in the workforce has increased to 4.6%, slightly above the EU average of 4.5%, the Czech Republic has the lowest share of female ICT professionals in the EU, at just 10%.

Connectivity: In terms of connectivity, the Czech Republic ranks 17th out of 27 EU countries, with a score below the EU average, an improvement from 22nd place in 2021. For fixed networks, there was a notable increase in the number of households covered by very high-capacity fixed networks in 2021, reaching 52%, up from 33% in 2020.

Integration of Digital Technology: Among the 27 EU countries, the Czech Republic comes 19th in the integration of digital technology, a drop from 15th place in 2021. The country's SMEs are slightly below the EU average of 55%, with 53% having at least a basic level of digital intensity. The percentage of enterprises using software to share information electronically across different sectors remains stable at the EU average of 38%. Although the use of social media by enterprises increases from 20% in 2019 to 24% in 2021, it is still below the EU average of 29%. Additionally, the country is significantly below the Digital Decade target, with less than 75% of enterprises utilizing cloud computing, big data, or AI.

Digital Public Services: Czech Republic saw an improvement in its ranking for digital public services, moving up from 20th place in 2021 to 17th place in 2022. Country's share of e-government users has increased by 12 percentage points to 76% in 2021, well above the EU average of 65%. Although its score for pre-filled forms remain low at 41, the Czech Republic's scores for digital public services for citizens (75) and businesses (81) are in line with the EU average. The digital transformation of public services is a key focus for the government, with Ivan Bartos of the Pirate Party taking up a cabinet position responsible for the sector, the first such appointment since 2007.

Innovations in Construction

In the Czech Republic, construction companies are struggling with rising costs and labor shortages. This led to the establishment of the National Center for Construction 4.0 (NCS) in 2022, which should be a significant step towards the technological future of the construction industry in the country. Construction 4.0 introduces and optimizes the synergy of digitalization, automation, and sustainable environmental practices in construction. It represents a completely new way of thinking, planning, executing, and maintaining buildings throughout their entire life cycle. It also aims to map and minimize the impact of construction activities on the external environment and the lasting effects these activities have on the surrounding nature. (MPO, 2023)

One of the examples of the country's efforts to innovate the construction industry is Building Information Modeling (BIM), which has been officially integrated into the Czech Republic's public administration as a key strategy for the digitalization of the construction industry. This initiative began with Government Resolution No. 682/2017, which mandated the Ministry of Industry and Trade, along with other associated agencies, to promote the adoption of BIM. BIM is mandatory for the management of public construction projects exceeding 150 million CZK, ensuring its application in significant public infrastructure developments. In response to evolving needs and technological advancements, the Czech government has planned further updates to the BIM implementation strategy to align with current sector requirements and improve the digital infrastructure of public administration. (Koncepte BIM, 2022)

There are several other technology trends that have the potential to improve the efficiency as well as safety of the Czech construction industry. The use of blockchain for smart contracts could streamline project management and secure transactions. Drones, which are increasingly being used in construction, offer the prospect of real-time data collection, which can facilitate faster decision-making and improve safety through aerial monitoring and mapping. Comprehensive construction management software could also play a critical role in improving data collection, communication, and resource monitoring to maintain project competitiveness and operational efficiency. Together, these innovations could lead to a more integrated, efficient, and safer construction environment in the Czech Republic. (BusinessInfo.cz, 2021)

3.1.5 Legal Environment

The Czech legal system, which is part of the continental legal culture, is based on written law and includes laws and other legal regulations, ratified, and proclaimed international treaties to which the Parliament of the Czech Republic has consented, as well as decisions of the Constitutional Court annulling a legal regulation or a part of it. (Blažek, 2022)

Legal environment of the Czech Republic will be analyzed by describing construction law and bureaucracy level in the country.

Construction Law

One of the most significant challenges regarding the development process in the Czech Republic is the ineffectiveness and duration of the building permitting process. According to the World Bank (2019), the average time needed for obtaining a building permit is 246 days, and the developer must go through 21 procedures. In practice, for example, when it comes to larger residential development projects, the permitting process can take years.

According to the old building act, which is partly in effect until July 30, 2024, the building permitting process is divided into two main procedures: land-use proceedings and building proceedings, each of which has its own specifics and a significant number of stages. (Kuzmová, 2023)

The land use proceeding is an essential process for obtaining approval for most construction projects. It is managed by the local municipal building authority and involves an assessment of how a building will fit into its surroundings and whether it is in line with land-use planning, environmental protection, and other public interests. The process is designed to ensure that projects are in harmony with local urban plans and have minimal negative impact on the environment. (Hejná, 2021)

The process begins with a formal application from an applicant and includes required documentation such as binding opinions from relevant authorities. It then proceeds through stages of public involvement, especially for significant or environmentally sensitive projects, and a period during which impacted parties can submit objections.

A key component is a hearing at which the authority evaluates the project considering local conditions and regulations. Ultimately, the authority issues a land use decision, which can be appealed by stakeholders if they believe their concerns have not been adequately addressed. This decision is important because it determines whether the project meets urban planning and environmental standards, balancing development with community and environmental needs. (Kuk, 2022)

The building proceeding is a process that is essential for obtaining approval for construction. Managed by the building authority, it evaluates whether and under what conditions a specific construction plan can be executed. Its main goal is to ensure that the construction meets all legal requirements, fits well with its surroundings, and is properly connected to the existing transportation and technical infrastructure. This process includes the evaluation of the adaptation to the environment, including environmental aspects. (Hejná, 2021)

The process begins when an applicant applies to the building authority, including the necessary permits and project documentation. The authority then reviews the application for compliance with urban plans and mandatory public administration opinions. If the application is complete, the process formally begins, and all parties are notified. If changes are identified that could have a negative impact on the environment, an Environmental Impact Assessment (EIA) may be required. Throughout the process, parties can submit objections, which the building authority must address individually in the building permit. If the process is successful, the building permit is issued, and construction can begin. If participants are dissatisfied with the decision, they can appeal to a higher authority. (Kuk, 2022)

As mentioned, and described, the whole building permitting process is very time consuming and ineffective. For this reason, the government has decided to implement a new building act, which will come into effect on January 1, 2024, with a transition period until July 30. (Kuzmová, 2023)

With the implementation of the new Building Act, all parties will now participate in the process digitally through the Builder's Portal and other information systems, although selected documents may still be submitted in paper form. The new law introduces a unified procedure for both the land-use proceedings and building proceedings,

streamlining the process. Specifically, permits for simple constructions will be issued within 30 days of the application, while other constructions will be assessed within 60 days, with the possibility for the building authority to extend this period by another 60 days. If the builder fails to submit mandatory opinions from relevant authorities, the building authority will obtain them directly without stopping the procedure. The appeal process has also been revised; if a building authority's decision is appealed, the case will not be returned to the original authority but will be reviewed by a higher building authority. Developers can request advance information on the criteria used by the building authority to evaluate permit applications. (MMR, 2024)

Overall, the New Building Act is the subject of many criticisms from all stakeholders. For example, according to Řežáb (2024), the positive fact is that there is an effort to make the process more effective and faster, but on the other hand, there is insufficient preparation of the implementing legal regulations. These are not fully prepared and approved, although being crucial for specifying the requirements for construction and documentation for permits, which can lead to confusion and potential difficulties in practice.

Bureaucracy Level

To gain a deeper insight into the influence of the legal environment on companies, it is useful to consider the level of bureaucracy in the country.

Bureaucracy in the Czech Republic has posed a significant challenge for both local and foreign entrepreneurs, as well as for expatriates seeking to establish a new life in the country. In a study evaluating the most favorable destinations for expatriates seeking to start a new life abroad, the Czech Republic ranked 45th out of 52 countries. Language and bureaucracy were identified as the most challenging aspects. (Smith, 2023)

In response to these challenges, the Czech government has been implementing measures to reduce bureaucracy and improve the ease of doing business. In July 2019, the government approved a three-year strategy to reduce the burden on businesses until 2022, affecting up to 133 obligations. Furthermore, the government

has been focusing on digital projects, such as the Digital Czechia initiative, with the objective of further reducing administrative burdens for businesses. (MPO, 2019)

The Liberal Institute offers the Bureaucracy Index, which serves to measure the bureaucracy in the Czech Republic. The results are specific and accurately reflect the actual circumstances of a small business in the Czech Republic. According to the 2021 results of the index, the average small company in the Czech Republic spends 272 hours a year on paperwork and bureaucracy, which was an increase of 49 hours compared to the year before, leading to conclusion, that governments measures were not effective enough. (Liberální Institut, 2021)

Despite the Czech government's efforts to streamline bureaucratic processes, the country's bureaucratic challenges suggest that more robust measures may be needed to effectively reduce the administrative burden on businesses and improve the overall ease of doing business.

3.1.6 Environmental Environment

The subsequent section will analyze the environmental context of the Czech Republic, with a focus on the country's environmental regulations, particularly those related to the real estate sector.

Environmental Regulations

The Czech Republic has implemented various environmental regulations, particularly in the real estate market and development sector, to ensure sustainable and environmentally friendly practices. The Czech government has adopted the State Environmental Policy 2030, which outlines goals for environmental protection, comprehensively covers environmental issues, and sets strategic direction until 2030 with a view to 2050. (MZP, 2021)

In the real estate sector, the country has implemented the new Building Act, which requires the consideration of environmental aspects in the planning and development of buildings. The new Building Act also applies the new Act on the Unified Environmental Assessment, which is administered by the Ministry of the Environment

and introduces the Unified Environmental Assessment, which is issued as a binding opinion. The law replaces binding opinions and decisions previously issued under nine different laws related to environmental protection, such as the Nature and Landscape Protection Act, the Forestry Act, the Water Act, and the Air Protection Act. In addition, the Energy Conservation Act implements EU requirements for the energy efficiency of buildings, requiring energy performance certificates for new buildings and major changes to existing buildings. (Baker McKenzie, 2024)

The Czech Republic's approach to environmental regulation, not only in the real estate sector, demonstrates its dedication to integrating sustainability with market dynamics. By harmonizing environmental policies with the construction industry, the country intends to achieve a balance between ecological objectives and economic growth and development needs.

3.2 Germany – PESTLE

Federal Republic of Germany is a European country with a population of 84.7 million people and its capital is Berlin. The country covers an area of 357,590 km² and its neighbors are Denmark to the north, Netherlands, Belgium, France and Luxembourg to the west, Switzerland, and Austria to the south and Czech Republic and Poland to the east. The main language is German. (European Union, 2024)

3.2.1 Political Environment

Germany operates as a federal parliamentary democracy led by both a chancellor, who serves as head of government, and a president, whose role is primarily ceremonial. The nation is divided into 16 states, each with its own constitution and a high degree of autonomy in internal matters. Among these states are three city-states: Bremen, Berlin, and Hamburg. (Facts About Germany, 2024)

The current government is led by Chancellor Olaf Scholz and is a coalition of the Social Democratic Party (SPD), the Greens, and the Free Democratic Party (FDP). The coalition's agenda encompasses a wide range of policies, particularly focusing on combating climate change, improving the housing market, and social welfare. (deutschland.de, 2023)

To understand the impact of the German political environment on residential development, the following sections will provide information on government policies and regulations regarding housing.

Government Policies on Housing

Before describing government policies on the housing market and any subsidies they may provide, it is important to provide context by describing the current state of Germany's housing market. This will help to better understand the purpose of government policies.

In Germany, there is currently a significant housing shortage, with two main contributing factors. Firstly, the country's population has reached a historic high, and

the federal government estimates that 400,000 new apartments are needed each year. (The Federal Government, 2022) Secondly, the combination of the COVID-19 pandemic and the war in Ukraine led to the rise of inflation, which resulted in rising interest rates (Knight, 2023).

In summary, Germany needs to build hundreds of thousands of apartments every year. However, due to the high cost of materials and capital, developers are unable to build quickly enough to meet demand. This has resulted in a situation where demand exceeds supply.

In response to these problems, the German government and the Alliance for Affordable Housing have launched a plan to build 400,000 apartments per year. The plan aims to enhance housing affordability and accessibility, with a commitment of over €200 billion to mitigate rising costs for people and companies and a push for 100,000 subsidized social housing units. This initiative involves a substantial increase in social housing subsidies to €14.5 billion by 2026, as well as support programs for young families. (The Federal Government, 2022)

The adoption of innovative construction methods, such as serial and modular building, along with the integration of Building Information Modelling (BIM) technology, is central to this effort. BIM enables efficient and collaborative planning, contributing to the project's goals of rapid, cost-effective, and environmentally friendly construction. The government ensures ongoing evaluation to adapt and refine its approach to meet its ambitious housing targets. (The Federal Government, 2022)

When it comes to above mentioned social housing in Germany, this support is aimed at households who are unable to find suitable accommodation on the open market, such as low-income families, the elderly, and the disabled. Developers can benefit from preferential loans or subsidies to provide affordable rental housing and support owner-occupied housing. In exchange, they must rent these units to eligible households, which are determined by income levels. Since 2006, social housing funding has been the responsibility of the federal states, with the Federal Government providing financial support. (Federal Ministry of the Interior and Community, 2023)

In summary, the German government is actively attempting to address its housing crisis by promoting new residential construction and improving affordability through significant investment and innovative technologies. The focus on increasing social housing subsidies and support for families demonstrates a desire to ensure accessible housing for all, especially for those struggling in the competitive market. This comprehensive approach aims to stabilize the housing sector and improve living conditions across the country.

Housing Regulations

The German housing market is subject to various regulations aimed at controlling rent increases and making housing more affordable. One of the primary measures is the Rent Control, which was introduced in 2015 to slow rising rents in highly populated cities. This regulation limits the rent for new rentals to only 10 % above the local comparative rent, which is determined based on the average rent for similar properties in the same area. Although it has been criticized for not effectively reducing rents, it has helped slow the rate of rent increase in many cities. (Conny, 2019)

Another significant measure introduced in Berlin at the beginning of 2020 was the Rent Cap. The goal was to freeze rents for five years and limit them to a maximum of 10% above the local average in areas with a strained housing market. However, in April 2021, the Federal Constitutional Court declared it unconstitutional. (PWC, 2021)

In 2021, the Building Land Mobilization Act was implemented. Key regulations include simplifying the process for granting building permits, especially in areas with a tight housing market, introducing a prohibition on converting rental apartments into condominiums without a permit and simplifying the preparation of development plans to accelerate housing construction. (PWC, 2021)

These measures reflect Germany's multifaceted approach to addressing the challenges in the housing market, aiming to stabilize rent prices and increase the availability of affordable housing. However, the effectiveness and impact of these regulations on the market dynamic continue to be a subject of debate among policymakers, developers, landlords, and tenants alike.

3.2.2 Economic Environment

Germany is the largest economy in Europe and the third largest globally, following the United States and China. Germany's position as the third-largest exporter worldwide is mainly due to its strong exports of motor vehicles and chemical products. The service sector is the most significant contributor to the nation's GDP, accounting for 70% of it. (Glunz, 2024)

The economic environment will be analyzed by examining key economic indicators that impact residential development, including taxation and the economic forecast for the next two years.

Key Economic Indicators

The Table 9 presents Germany's economic indicators from 2018 to 2022, including fluctuations in GDP, inflation, unemployment, capital investment, and foreign direct investment inflows.

Table 9: Germany Economic Indicators: 2018-2022 Overview

| Year/Indicator | GDP, billions of U.S. dollars | Inflation rate | Unemployment rate | Capital investment, billion USD | FDI inflows, billion USD |
|----------------|-------------------------------|----------------|-------------------|---------------------------------|--------------------------|
| 2018 | 3974.44 | 1.7 | 3.38 | 871.18 | 166.92 |
| 2019 | 3889.18 | 1.4 | 3.14 | 850.55 | 73.97 |
| 2020 | 3887.73 | 0.1 | 3.86 | 854.11 | 160.8 |
| 2021 | 4278.5 | 3.1 | 3.64 | 993.32 | 95.9 |
| 2022 | 4082.47 | 6.9 | 3.14 | 1021.79 | 47.37 |

Source: own processing according to (TheGlobalEconomy.com, 2024)

The initial two years demonstrate relatively stable economic conditions. However, in 2020, there was a significant downturn across several indicators, which reflects the global impact of the COVID-19 pandemic. The most striking data point is the increase in inflation in 2022, which was caused by the war in Ukraine.

The years 2021 and 2022 have seen a slow economic recovery, with increases in GDP and capital investment. However, the war in Ukraine in early 2022 has caused new economic pressures, most notably a sharp increase in inflation and disruptions in trade and supply chains, which are reflected in the unstable investment figures. The impact of geopolitical tensions and global market instability on the German

economy is reflected in these changes, affecting not only the cost of goods but also investment inflows.

The Table 10 presents a quarterly overview of the indicators important for residential development in Germany in the years from 2018 to 2023.

Table 10: Trends in Economic Growth, Property Prices, and Credit Rates in Germany (2018-2023)

| Year/Quarter/Indicator | | Economic growth, % change in quarterly real GDP | Real residential property prices Y-on-Y, % change | Business credit interest rate, % | Mortgage credit interest rate, % |
|------------------------|----|---|---|----------------------------------|----------------------------------|
| 2018 | Q1 | 1.9 | 5.3 | 2.15 | 1.85 |
| | Q2 | 1.8 | 4.79 | 2.08 | 1.9 |
| | Q3 | 0.2 | 5.03 | 2.02 | 1.87 |
| | Q4 | 0.1 | 4.18 | 2.01 | 1.86 |
| 2019 | Q1 | 1.4 | 3.91 | 1.98 | 1.79 |
| | Q2 | 0.6 | 4.21 | 1.94 | 1.62 |
| | Q3 | 1.5 | 3.8 | 1.91 | 1.38 |
| | Q4 | 0.9 | 5.23 | 1.91 | 1.27 |
| 2020 | Q1 | -1.5 | 5.29 | 1.88 | 1.28 |
| | Q2 | -10.6 | 5.76 | 1.81 | 1.31 |
| | Q3 | -2.6 | 8.88 | 1.82 | 1.24 |
| | Q4 | -2.1 | 8.85 | 1.83 | 1.17 |
| 2021 | Q1 | -1.6 | 7.7 | 1.78 | 1.18 |
| | Q2 | 10.8 | 9.08 | 1.77 | 1.26 |
| | Q3 | 2.4 | 8.56 | 1.74 | 1.28 |
| | Q4 | 1.6 | 7.53 | 1.69 | 1.31 |
| 2022 | Q1 | 4 | 6.51 | 1.66 | 1.48 |
| | Q2 | 1.6 | 2.77 | 1.71 | 2.53 |
| | Q3 | 1.2 | -2.77 | 1.95 | 2.88 |
| | Q4 | 0.8 | -11.19 | 2.64 | 3.46 |
| 2023 | Q1 | -0.1 | -13.89 | 3.22 | 3.78 |
| | Q2 | 0.1 | -15.19 | 3.74 | 3.98 |
| | Q3 | -0.3 | -14.99 | 4.1 | 4.09 |
| | Q4 | -0.2 | - | 4.32 | 4.15 |

Source: own processing according to (TheGlobalEconomy.com, 2024)

The table shows significant volatility in property prices, with a substantial increase during the pandemic years due to increased demand for dwellings, mostly because of very low interest rates. However, this trend reverses significantly in 2022 and worsens in 2023, likely influenced by the dual pressures of escalating geopolitical tensions due to the war in Ukraine and subsequent economic sanctions affecting Europe. These events led to increased prices for building materials and energy, significantly impacting construction costs and real estate prices.

Furthermore, the rise in business and mortgage credit rates in 2022 and 2023 indicates a tightening of monetary conditions by the European Central Bank in

response to the inflation caused by the war. This increase in interest rates makes borrowing more expensive, which likely contributed to a further cooling of the real estate market by reducing the affordability of mortgages and reducing the willingness to invest in real estate. These facts illustrate the sensitivity of the housing market to macroeconomic policies and external economic shocks.

Economic Forecast

Germany's economic growth forecast for 2024 is modest, with real GDP expected to increase by only 0.2%. This growth represents a slight improvement from the decline experienced in 2023, but still indicates a cautious economic outlook. The main challenges faced are the ongoing effects of the COVID-19 pandemic, higher construction and borrowing costs, labor shortages, and high energy prices, which together have dampened investment in construction and energy-intensive sectors. Inflation is expected to decrease from previous highs, which may provide relief to consumers and support a slow recovery in private consumption over the forecast period. (ifo Institute, 2024)

For 2025, a growth forecast of 1.5% is projected, indicating a gradual economic recovery as market conditions stabilize and the negative impacts of current challenges begin to decline. The economic environment is closely linked to global economic dynamics, especially because Germany relies heavily on exports. (ifo Institute, 2024)

Taxation

Germany uses a progressive tax rate system, where the tax rate increases as taxable income increases. This system includes various types of taxes, such as income tax, trade tax, and value-added tax, which are the main sources of revenue for the government. These revenues support essential public services, such as social security, education, healthcare, and transportation infrastructure. (Elter, 2024)

The Table 11 presents the rates for personal income tax, corporate tax, and VAT.

Table 11: Personal Income Tax and Corporate Tax in Germany

| Personal Income Tax | | Corporate Tax | |
|-----------------------|------------|-----------------|--|
| Income | Tax Rate | Corporation tax | Trade Tax |
| Less than 11.604 EUR | 0% | 15.825% | combination of a base rate 3.5% and municipal tax rate from 8.75% to 20.3% |
| 11.604 - 66.760 EUR | 14% to 42% | | |
| 66.761 - 277.825 EUR | 42% | | |
| More than 277.826 EUR | 45% | VAT | 19%, reduced 7% |

Source: own processing according to (PWC, 2023)

Other important taxes, according to (PWC, 2023), are as follows:

Property Transfer Tax: When a property valued at more than 2,500 euros changes hands, a property transfer tax is charged. This is a one-time levy, and the tax rate varies by federal state, ranging from 3.5% to 6.5% of the property's value.

Capital Gain Tax: A uniform rate of 25% is applied to income from capital assets, such as dividends, interest, investment fund income, and private capital gains, including the sale of shares or company stakes.

Property Tax: Property tax is levied by municipalities on real estate assets. The tax amount is determined based on the property's assessed value and the local tax rate, which can range from 0.26% to 1%.

3.2.3 Socio – Cultural Environment

The socio-cultural environment in Germany is influenced by evolving Demographic trends and shifting consumer behaviors. The following sections analyze the socio-cultural environment by describing Demographic trends, urbanization, customer preferences and behavior, and housing market trends.

Demographic Trends and Urbanization

In terms of administrative and regional structure, Germany is divided into 16 federal states (Länder), 19 administrative regions, 400 districts, which include 106 municipalities that also function as districts, 294 rural districts, and a total of 10,786 municipalities. (European Commission, 2024).

The country has experienced significant demographic changes in recent decades, influenced by factors such as birth and death rates, the age structure of the population, and trends in urbanization. For example, in 2022, the urbanization rate in Germany was 77.65%, indicating that over three-quarters of the German population lives in urban areas. It is expected to continue growing over time. (Statista, 2024)

These changes reflect trends in other European countries. The population in Germany is aging, as in 2022, the population under the age of 20 was slightly below 15.9 million, representing 18.8% of the total. Meanwhile, the demographic of individuals aged 60 and over was 29.5% in 2022. Despite having one of the highest marriage rates in Europe, which is probably influenced by tax benefits, Germany's fertility rate remains low at only 1.46 children per woman by 2023, indicating a trend that could reduce the size of the labor force and affect economic stability if it continues. (Statista, 2024)

In conclusion, the Demographic trends and urbanization in Germany are characterized by a highly urbanized population, an overall population decline, and an aging society.

Customer Preferences and Behavior

Germany is a mass consumer society where consumers want to know as much as possible about products before making a purchase. They consider aspects such as features and origin in addition to price. Studies suggest that German consumers are among the most highly selective in the world, with some willing to pay a higher price for better quality. Although open to international products, many consumers prefer local, national, and European goods. In Germany, brand loyalty is a significant factor, especially when it comes to quality products. Around 60% of the population is likely to repeatedly purchase the same brand under such circumstances. (Santandertrade.com, 2024)

In the real estate market, consumers significantly prefer properties that are both high-quality and energy efficient. This trend is driven by ecological considerations and the potential for long-term savings on energy expenses. Moreover, there is a growing demand for properties with modern features and smart home technologies. Properties located in urban areas with strong infrastructure and easy access to

facilities such as schools, shops and public transportation are also in high demand. (Statista, 2024)

Market Trends

The German real estate market is experiencing a significant increase in the desire to rent, driven by factors such as population growth, increasing urbanization and changing lifestyle preferences. In 2022, 58% of households rented their homes. Renting is often preferred over purchasing, especially among young adults and students, due to the flexibility it offers. As a result, there has been a notable growth in the development of rental properties, especially in major urban centers such as Berlin, Munich, and Hamburg. Another trend is the rise of co-living and co-working spaces, which reflects the changing needs and preferences of the younger population, catering to their desire for more adaptable and communal living and working environments. There is also a trend towards smaller household sizes, with an increase in single and two-person households while larger households are decreasing. (Statista, 2024)

3.2.4 Technological Environment

The technological environment in Germany is characterized by a dynamic interplay between advancing digital infrastructure and innovative practices across various sectors, such as construction. The following sections analyze the technological environment by describing the country's results in the DESI index and innovations in construction.

DESI Index

According to the 2022 Digital Economy and Society Index (2022), Germany ranks 13th among the 27 EU Member States. The DESI (2022) report shows Germany's performance in specific areas as follows:

Human Capital: Germany ranks 16th among the 27 EU member states in terms of Human Capital, which is below the EU average. The levels of basic digital skills and digital content creation abilities in Germany are slightly below the EU average.

However, ICT specialists account for 4.9% of the German workforce, slightly above the EU average of 4.5%, and 4.9% of all graduates in Germany are ICT graduates, compared to the EU average of 3.9%.

Connectivity: Germany ranks 4th in the Connectivity dimension among the 27 EU countries. The country has improved across most connectivity indicators for fixed networks, and now has a fast broadband coverage of 96%, providing a robust foundation for digital participation within society and the economy.

Integration of Digital Technology: Germany ranks 16th among EU countries in terms of integrating digital technology into business activities. Its performance on most indicators in this category closely aligns with the EU average. This includes metrics such as the proportion of SMEs with at least a basic level of digital maturity and the adoption of advanced technologies such as cloud computing, big data, and artificial intelligence. However, German businesses fall behind the EU average in certain areas. For instance, only 18% of businesses in Germany use e-invoices, compared to the EU average of 32%.

Digital Public Services: Germany ranks 18th in the EU for Digital Public Services, indicating an area where the country still needs improvement. Only 55% of internet users engage with e-government services, placing Germany 24th among EU nations. In terms of pre-filled forms, Germany scores 42, significantly below the EU average of 64, categorizing it among the bottom five EU countries in this respect. However, Germany's performance is similar to the EU average in digital public services aimed at businesses, scoring 80, and slightly above average for services targeted at citizens, scoring 76. Germany performs strongly in the open data sector, achieving 89%, which is notably higher than the EU average of 81%.

Innovations in Construction

The construction industry in Germany is currently experiencing a significant transformation through innovative technologies, processes, and products. The German Parliament's Office of Technology Assessment has reported that the industry needs to increase its innovation activity and willingness to meet technological and socio-political goals, especially in residential construction. (TAB, 2022)

Digitalization is a major driver of innovation in the German construction industry. Building Information Modeling (BIM) is a software-based planning and working method that integrates all necessary information for the planning, construction, and subsequent use of a building based on digital building models. BIM is now a mandatory requirement for infrastructure projects undertaken for the national government in Germany. This approach significantly enhances efficiency and productivity in the development process, but its complete implementation in the whole industry still needs time and discussion. Germany is also embracing modular construction, which is the process of building structures in a factory and assembling them on site. This method saves time and reduces costs, making housing more affordable. Modular construction is a hot trend in the industry and is expected to have a considerable impact on housing prices in the long run. (TAB, 2022)

Furthermore, German construction startups are attempting to revolutionize the industry by transforming the way buildings are designed, constructed, and managed. These startups provide innovative solutions, including last-mile logistics platforms for construction, comprehensive building material platforms, 3D visualization for buildings and systems, web-based production management platforms, and software solutions tailored to the construction industry. (EU Startup News, 2023)

In summary, the German construction industry is undergoing a significant shift towards innovation, with digitalization and modular construction playing crucial roles. The construction industry is adopting new technologies, processes, and products to meet the demands of residential construction and climate protection. With the support of innovative startups, the German construction industry can better prepare to face the challenges of the future.

3.2.5 Legal Environment

Germany's legal system is based on the civil law tradition, which derives its foundational principles from Roman law. German legal practices have significantly contributed to the codification of civil law and have extended their influence on various other jurisdictions. The sources of law in Germany consist of European Union

Regulations, the German Constitution, and legislation created by the Federal Parliament and the Federal States. (Deloitte, 2022)

The following sections will analyze the legal environment by describing the specifics of construction law and the bureaucracy level in Germany.

Construction Law

The building permitting process in Germany is generally considered to be bureaucratic and complex, requiring a significant amount of documentation and compliance with building codes and safety standards. According to the World Bank (2019), the building permitting process in Germany takes an average of 126 days and the developer must go through 9 procedures.

In Germany, the oversight of public construction law is shared between the federal and state governments. Zoning law, which falls under federal jurisdiction, establishes the acceptable use of land, and ensures that a project is in harmony with its environment. In contrast, the states are responsible for overseeing building regulations law, which specifies the design and construction standards that buildings must meet. (NRW. Global Business, 2024)

For any construction, modification, change in use, or demolition of a building, it is mandatory to obtain a building permit. This permit ensures compliance with zoning laws, state-specific building regulations, and other public law provisions, including environmental, monument protection, and pollution control. The process of obtaining a building permit can be time-consuming, but fast-track options are available, although they still require compliance with all legal standards. Permits are valid for a period of one to four years, assuming construction begins within that period. (DLA Piper, 2023)

To obtain a building permit, an application must be submitted to the local building authority. This application includes a detailed project plan and supporting documents, such as a site plan, construction drawings, and building specifications. If necessary, additional documentation on heating, noise prevention, and fire protection plans is also submitted. (NRW. Global Business, 2024)

Important part of the construction law is also construction contract. According to Berger (2023), the two primary bodies that govern legal relationships between parties involved in a construction contract are:

- **The German Civil Code (BGB):** The statutory provisions that apply to contracts for work and services are specified in Sections 631 to 650v of the German Civil Code. These provisions automatically apply to such contracts and cover a broad range of general contract law principles.
- **Construction Contract Procedures Part B (VOB/B):** Unlike the Civil Code, the VOB/B is not a statutory law but rather a set of general terms and conditions. For the VOB/B to be applicable, its inclusion must be explicitly agreed upon by the parties as part of the construction contract.

Although the Civil Code's provisions serve as the default rules for contracts, they are rarely used alone in complex building projects due to their general nature. Since 2018, the Civil Code has included specific categories for construction-related contracts, such as construction contracts, architect and engineer contracts, and developer contracts. Each category has special provisions tailored to the unique aspects of building contracts. (DLA Piper, 2023)

In summary, the legal process of development projects in Germany is very complex and time-consuming, which may be one of the reasons why the housing market is going through challenging times.

Bureaucracy Level

To better understand the actual challenges that legal processes cause, not only in the residential development process, the level of bureaucracy of the country's legal system can serve as an effective indicator.

A recent study by IfM indicates that two-thirds of companies in Germany report feeling excessively burdened by government bureaucracy, marking a 14% increase since a similar survey conducted in 2018. Despite political efforts to reduce this burden and various bureaucracy reduction laws, companies perceive these actions to be mostly ineffective in reducing bureaucratic burdens. (IfM, 2023)

The German Statistical Office measures bureaucracy with administrative burden index. The index that measures the administrative burdens on businesses is based on the situation as of January 1, 2012 (2012 = 100). If the Federal Government implements legal regulations to reduce these burdens, the index will decrease. Conversely, the introduction of regulations that add new administrative burdens will cause the index to increase. In 2023, the average index from all twelve months was 97.41, indicating that there has been small progress in reducing administrative burdens since 2012. Bureaucracy remains one of the most challenging factors not only in the development process in Germany. (Destatis, 2024)

In conclusion, although Germany has taken measures to reduce bureaucracy, the Administrative Burden Index and business perceptions indicate only small improvements. Companies still feel burdened, suggesting that efforts to decrease regulatory complexity have not been effective enough. This points to a need for more impactful reforms to significantly ease the bureaucratic challenges impacting business operations and development processes.

3.2.6 Environmental Environment

Environmental considerations are becoming more important in Germany, particularly in sectors such as residential development. The following sections will analyze the environmental environment by describing environmental regulations in the country, specifically in real estate sector.

Environmental Regulations

Environmental regulations are important to the residential development sector in Germany, with a strong focus on reducing emissions, promoting sustainable practices, and protecting natural resources. The German Climate Protection Act, which was amended in 2021, sets ambitious targets for reducing greenhouse gas emissions. The aim is to achieve greenhouse gas neutrality by 2045. The Act applies to all sectors, including traffic, industry, and construction, and assigns specific reduction targets to each sector. (Minzenmay and Herzhoff, 2023)

The Building Energy Act is another important regulation that promotes energy efficiency in buildings, in addition to the Climate Protection Act. The Buildings Energy Act consolidates several older laws into a single, comprehensive framework. This act governs the energy performance of buildings and emphasizes the use of renewable energies while maintaining energy efficiency standards. Importantly, it aims to prevent any increase in construction and renovation costs, aligning with Germany's climate action objectives and the EU's energy performance goals. By combining the Energy Conservation Act, the Energy Saving Ordinance, and the Renewable Energies Heat Act into one modern law, the Act sets clear requirements for both new and existing buildings with regard to their energy performance and the integration of renewable energy sources for heating and cooling. (Federal Ministry of the Interior and Community, 2023)

Germany is making significant progress toward sustainability through strong environmental regulations such as the Climate Protection Act and the Building Energy Act. These laws set ambitious targets for reducing emissions and promoting the use of renewable energy while maintaining affordability in construction and renovation. However, the challenge remains to effectively align these sustainability goals with the dynamic needs of the market, balancing environmental goals with economic viability. This balancing act is crucial to ensure that environmental progress does not limit market growth and development.

4 Comparison of Conditions for Managing Residential Development Project in Czech Republic and Germany

The previous chapter provided a detailed analysis of conditions on the Czech and German markets. It highlighted the strengths and weaknesses of both markets, but also pointed out a considerable number of similarities. This chapter first presents the method used for the comparison. It then compares the conditions in both markets, evaluates the results and recommends which market a new development company should enter.

4.1 Method of Comparison

Before undertaking a comparison of the two markets, it is first necessary to describe the method by which this comparison will be conducted. All the environments in both markets are divided into several sections that were defined at the beginning of the previous chapter. Each of these sections will be compared to the same section in the other market.

Since the last step of this chapter is a recommendation on which of the two markets a new development company should enter, it is important to maintain the context of a new development company throughout the comparison. This means that the main objective of the comparison is to identify which of the two sections is more suitable for a new development company and offers better conditions for success.

According to personal communication (2024) with mentioned experts, context of a new development company typically involves managing initial capital limitations and focusing on strategies that provide quick returns to support growth. These companies often prioritize for-sale projects over rental projects to mitigate financial risks and build market credibility. Limited operational capacity and access to financing also shape their early project choices as they gradually build their reputation and expand their understanding of the market and regulatory environment.

If one of the two compared sections is valued as better, it gets two points, and the worse one gets one point. As mentioned earlier, both markets have similarities, which

may lead to some sections being valued as equally good. When this happens, each of the sections gets one point.

After comparing the sections, the points of each section are multiplied by the weight. More important sections will be given a weight of two points and others a weight of one point.

The final step of the comparison will be to add up the points from each section for each market and, based on the results, recommend which of the two markets would be more suitable for a new residential development company.

The weights of each section are presented in the Table 12.

Table 12: Weights of Each Section

| Section | Weight | Section | Weight |
|-------------------------------------|---------------|-----------------------------|---------------|
| Government policies on housing | 1 | Key economic indicators | 2 |
| Housing regulations | 1 | Economic forecast | 2 |
| Demographic trends and urbanization | 1 | Taxation | 1 |
| Customer preferences and behavior | 2 | DESI index | 1 |
| Market trends | 2 | Innovations in construction | 1 |
| Construction law | 2 | Environmental regulations | 1 |
| Bureaucratic level | 2 | - | - |

Source: own processing according to (Personal communication, 2024)

The weight is an important factor because the impact of each section on the residential development business is not equal. The most important sections were determined in the summary of the expert interviews at the beginning of the previous chapter. According to personal communication (2024) the most important sections of the market environments for residential development are: key economic indicators, economic forecast, construction law, bureaucracy level, market trends and consumer preferences. These sections provide the most valuable information for developers. They wax and wane at certain stages of the project and it is important to monitor, analyze and correctly estimate the direction of their development.

The next chapter provides comparison of both markets based on the above-mentioned method.

4.2 Comparison of Conditions

This chapter compares the conditions for residential development in the Czech Republic and Germany across previously defined sections: government policies on housing, housing regulations, key economic indicators, economic forecasts, taxation, demographic trends and urbanization, customer preferences and behavior, market trends, the DESI index, innovations in construction, construction law, the level of bureaucracy, and environmental regulations. The objective is to determine which country offers a more favorable conditions for new developers entering the market.

4.2.1 Government Policies on Housing

Comparison and Assessment: Both countries demonstrate a strong government commitment to addressing housing challenges through comprehensive policy measures and significant financial support. However, Germany's approach appears to be more proactive and structured, with a clear target for new housing units and large investments in housing subsidies and technological integration. The Czech Republic faces more systematic challenges in social housing supply, which may affect the effectiveness of its housing policy compared to Germany's more streamlined and ambitious initiatives.

Result: Given the broader and more ambitious scope of Germany's housing initiatives, coupled with its high financial investments to support housing affordability, the country's housing policy framework is more robust and effective in the short to medium term. The Czech approach, which can be praised for its comprehensive support mechanisms, requires more structural reforms to address the problems with social housing.

Germany offers better conditions in this section.

4.2.2 Housing Regulations

Comparison and Assessment: Czech Republic and Germany have implemented strong government initiatives to regulate their housing markets, although their

approaches offer different advantages for new development companies. Germany's strict housing regulations, such as the Rent Control Act and the Building Land Mobilization Act, aim to stabilize rent prices and increase housing availability, but may limit the flexibility new companies need to adapt quickly to market changes. In contrast, the Czech Republic's more liberal regulatory environment allows for more flexibility in adjusting rents according to market dynamics, which can be beneficial for new businesses that want to respond quickly to economic changes and consumer demands. However, this flexibility can also lead to instability for tenants and market fluctuations, which the planned reforms aim to reduce.

Result: While Germany's strict and structured housing regulations are designed to stabilize the market and ensure affordability, these measures can sometimes be too restrictive, potentially impacting market dynamics. This could be a challenge for a new developer looking for flexibility and growth opportunities. On the other hand, the Czech Republic's more market-friendly regulations, despite their drawbacks in terms of tenant stability, may provide a more favorable environment for new companies. These regulations allow for greater flexibility in rent adjustments and faster response to market conditions, which could be advantageous for a new entrant looking to adapt quickly and capitalize on market opportunities. Therefore, given the need for a balance between regulatory support and market flexibility, the Czech Republic may offer a better environment for a new development company.

Czech Republic offers better conditions in this section.

4.2.3 Key Economic Indicators

Comparison and Assessment: The economic indicators of Germany and the Czech Republic show both similarities and differences that are crucial for understanding the markets. Germany, as one of Europe's largest economies, shows considerable robustness in its economic indicators, with a clear downturn during the global events of 2020, but a relatively quick recovery in some areas. The Czech economy, while smaller, has shown remarkable resilience and growth, particularly in the real estate sector, which has boomed despite global economic challenges. However, the Czech market is facing greater volatility, particularly with a dramatic rise in inflation in 2022,

which has significantly cooled the previously booming real estate market. This reflects a more volatile economic environment compared to Germany, which may bring higher risks but also potentially higher rewards for investors due to the dynamic nature of the market.

Result: Given the size and stability of the German economy and its strategic measures to address housing shortages and inflation, Germany offers a more secure environment for residential development. The Czech Republic, while offering significant real estate growth opportunities, has greater economic volatility that requires careful management and may be attractive to investors seeking dynamic market conditions. For a new company considering entry into either market, Germany offers a safer investment climate with its larger, more stable economy and proactive housing policy. In contrast, the Czech Republic offers benefits to those seeking potentially higher returns in a more volatile market environment.

Since the decision in this section about which market a new company would prefer is mainly about the characteristics of a business strategy, as this strategy can be more about slow growth and security, or mainly about taking acceptable risk for faster growth, both markets can be considered equally suitable in this section.

4.2.4 Economic Forecast

Comparison and Assessment: Both Germany and the Czech Republic forecast modest economic growth in 2024, with each country facing unique challenges that have affected their economies. Germany's growth forecast of 0.2% for 2024 indicates a very cautious approach, reflecting ongoing global uncertainties and internal economic pressures such as high construction costs and labor shortages. The slightly more optimistic forecast of 1.5% for 2025 suggests an expectation of gradual stabilization and recovery in economic conditions. In contrast, the Czech Republic has a slightly more robust economic forecast with a growth rate of 1.4% in 2024, accelerating to 2.6% in 2025. This stronger growth will be supported by a rise in domestic demand and improved international economic conditions. The Czech inflation forecast shows effective control within the Czech National Bank's target,

which is expected to stabilize at around 2.4% to 2.7%, reflecting the success of monetary and fiscal measures to control inflation pressures.

Result: Considering the context of a new company entering the market, the Czech Republic offers a more favorable economic forecast compared to Germany. The faster economic recovery and the controlled inflation environment in the Czech Republic represent potentially lower economic risks and more attractive conditions for new investments. These factors make the Czech market particularly attractive for new entrants looking for growth opportunities. In addition, the proactive fiscal and monetary policies in the Czech Republic may provide a more predictable business environment, which is crucial for strategic planning and investment decisions by new companies.

Czech Republic offers better conditions in this section.

4.2.5 Taxation

Comparison and Assessment: The tax environment in both countries has distinct characteristics that can influence the attractiveness of each market for businesses and investors. In the Czech Republic, personal income tax rates are lower, with a maximum rate of 23% for income above 48 times the average wage, and a corporate tax rate of 21%. This provides a relatively favorable tax environment for both individuals and corporations. Germany, on the other hand, has a progressive personal income tax system, with rates that can rise to 45% for top earners, coupled with a corporate tax rate that is generally around 30% when corporate income tax and trade tax are combined. This results in a significantly higher tax burden than in the Czech Republic. In addition, the German VAT of 19% is slightly lower than the Czech VAT of 21%, but this small difference may not compensate for the higher income and corporate tax rates.

Result: When considering the overall tax burden, the Czech Republic offers a more attractive tax environment for both companies and individuals due to its lower personal and corporate tax rates. This simplicity and lower tax rate make the Czech Republic potentially more attractive to new businesses seeking to maximize their after-tax income. This difference in tax burden could be a deciding factor for

companies when deciding whether to enter the Czech or German market, with the Czech market offering a more cost-effective environment.

Czech Republic offers better conditions in this section.

4.2.6 Demographic Trends and Urbanization

Comparison and Assessment: Germany and the Czech Republic face similar demographic challenges, characterized by aging populations and urbanization trends. Germany's urbanization rate is slightly higher at 77.65% compared to the Czech Republic's 74.38%, indicating a slightly more concentrated urban population. Both countries face low fertility rates, with Germany at 1.46 children per woman and the Czech Republic slightly higher at 1.62. This similarity suggests a common demographic trajectory that could affect future labor markets and economic stability due to shrinking workforces. However, Germany's demographic structure shows a higher proportion of older adults, with people aged 60 and over making up 29.5% of the population, compared to 20.4% in the Czech Republic for the same age group. This suggests that Germany may face more immediate challenges related to an ageing population, including higher demands for health care and pensions.

Result: From the perspective of a new development company considering entry into either market, the Czech Republic may offer a slightly more favorable demographic environment in the short to medium term. The slightly younger population and lower degree of urban concentration potentially provide more flexibility and opportunities for new residential development, especially in urbanizing regions outside the major cities. In addition, the slightly higher fertility rate may indicate a slower pace of demographic aging, providing a more stable future labor market. This could influence long-term strategic decisions for a developer looking for growth opportunities in residential markets.

Czech Republic offers better conditions in this section.

4.2.7 Customer Preferences and Behavior

Comparison and Assessment: The markets have distinct consumer behaviors and preferences, particularly in the real estate sector. German consumers show a strong preference for quality and sustainability, preferring properties that are energy efficient and equipped with modern technologies. This preference is in line with Germany's broader environmental goals and reflects a consumer base that is willing to invest in higher quality, potentially more expensive properties for long-term benefits. On the other hand, Czech consumers show a strong inclination towards home ownership, driven by the potential for lucrative returns. This trend is driving demand for residential real estate, with consumers taking a cautious yet pragmatic approach to real estate investment, prioritizing long-term value and financial stability.

Result: For a new development company, the Czech market's strong preference for home ownership offers a significant advantage. The trend towards buying rather than renting indicates a robust demand for residential properties, providing an opportunity for developers to launch new projects. While the German market values high quality, sustainable properties, the broader and more immediate opportunities in the Czech Republic make it an attractive choice for new entrants looking to capitalize on the high demand for home ownership.

Czech Republic offers better conditions in this section.

4.2.8 Market Trends

Comparison and Assessment: Significant urbanization and a shift towards more flexible living arrangements characterize the German and Czech markets. In Germany, the market shows a robust trend towards renting, especially in major urban areas, driven by the lifestyle flexibility desired by younger population groups and the growth of single and two-person households. The popularity of co-living and co-working spaces also indicates a shift towards more communal and adaptable living arrangements. The Czech market, on the other hand, is experiencing a strong demand for ownership, driven by urban migration and economic opportunities, which have resulted in rising real estate prices. Demand is not limited to residential

properties, but also extends to commercial real estate, driven by a growing business climate and tourism, particularly in Prague.

Result: The trends in each country reflect different demographics and business needs. In Germany, the expansion of the rental market, especially among young people and in metropolitan areas, could provide opportunities for new companies in rental investments and developments tailored to flexible living spaces. The Czech Republic, on the other hand, offers a lucrative environment for developers targeting both residential and commercial real estate due to high demand and ongoing urbanization. For a new company considering entry into these markets, the Czech Republic may offer more immediate growth potential due to its strong ownership trend and expanding commercial sector.

Czech Republic offers better conditions in this section.

4.2.9 DESI Index

Comparison and Assessment: Analyzing the Digital Economy and Society Index (DESI), Germany shows significant strengths over the Czech Republic in several key areas. Germany ranks higher in overall connectivity, high-speed broadband coverage, and significantly outperforms the Czech Republic in open data. This robust infrastructure provides a strong foundation for businesses and digital enterprises. Although Germany is close to the EU average in terms of the integration of digital technologies in businesses and digital public services, it has a slight edge over the Czech Republic in terms of infrastructure quality and availability of digital services. In contrast, while the Czech Republic has made progress, especially in digital public services, where it outperforms Germany, it still struggles with broader digital integration in businesses and has lower coverage of very high-capacity networks. Despite improvements, the Czech Republic's overall digital environment remains less developed compared to Germany's more comprehensive and mature digital ecosystem.

Result: For a new development company looking to use advanced digital technologies and infrastructure, Germany offers a more favorable environment. Germany's superior connectivity and higher overall DESI ranking indicate a more

supportive ecosystem for digital operations, which is critical for companies that rely on stable digital services. The Czech Republic, despite its progress in digital public services, still is behind in creating a fully integrated digital business environment, making Germany a more attractive option for companies seeking a robust digital environment.

Germany offers better conditions in this section.

4.2.10 Innovations in Construction

Comparison and Assessment: Both Germany and the Czech Republic are actively integrating innovative technologies into their construction industries, each with a different approach. In Germany, there is a strong focus on digitalization and efficiency improvements through Building Information Modeling (BIM) and modular construction. These efforts are well supported by the government and the construction sector, especially with initiatives such as mandatory BIM for public infrastructure projects. In addition, the German construction industry benefits from a vibrant startup ecosystem that brings fresh solutions. Conversely, the Czech Republic is focused on addressing fundamental challenges such as labor shortages through the establishment of the National Center for Construction 4.0, which emphasizes the digitalization and sustainability of construction practices. The Czech approach includes not only the integration of BIM, but also the innovative use of blockchain for smart contracts, with the aim of modernizing construction processes and making them more efficient and environmentally friendly.

Result: While both countries show a commitment to advancing construction technology, Germany appears to have a more comprehensive and mature implementation strategy, particularly in the adoption of BIM and modular construction, which are already impacting the industry. The Czech Republic still faces significant challenges that may slow the rapid adoption and impact of these technologies. For a new company considering entering the market, Germany offers a more robust and supportive environment for adopting construction technology innovations. This makes Germany a more attractive option for companies focused on advanced construction technologies and efficient building practices.

Germany offers better conditions in this section.

4.2.11 Construction Law

Comparison and Assessment: Building permitting processes in both Germany and the Czech Republic are lengthy and bureaucratic, posing challenges for developers. In Germany, the average process takes approximately 126 days with 9 procedures, while in the Czech Republic it's notably longer at 246 days with 21 procedures. Germany, however, has a more streamlined legal framework for construction that clearly defines responsibilities and requirements for zoning and building standards. The Czech Republic's system has been criticized for its inefficiency and the excessive time required to navigate the permitting process. This has been a significant obstacle to development, prompting the introduction of a new Building Act aimed at simplifying and speeding up the process. The new law represents a significant revision that aims to reduce procedural delays through digitization and unified procedures, although it faces criticism regarding its preparation and the clarity of its implementing regulations.

Result: While both countries face challenges with bureaucratic permitting processes, Germany's more established and organized framework may provide a more predictable, but still complex, environment for developers. The Czech Republic's recent legislative changes could potentially improve its permitting process, making it more attractive in the long run if the new system effectively reduces procedural burdens. However, given the current state and transitional issues, Germany still holds the edge for developers seeking a more stable regulatory environment.

Germany offers better conditions in this section.

4.2.12 Bureaucracy Level

Comparison and Assessment: Both Germany and the Czech Republic have recognized the significant challenges that bureaucratic systems pose to businesses, particularly in the context of residential development and broader business

operations. Germany's Bureaucratic Index suggests some reform efforts, with a slight reduction in administrative burdens since 2012, although businesses still feel the impact of excessive bureaucracy. In contrast, in the Czech Republic, despite government initiatives aimed at reducing bureaucracy through digital transformation and specific legislative adjustments, the actual impact on reducing bureaucratic time has been insufficient. Businesses still spend a significant amount of time dealing with paperwork, indicating that the measures have not been effectively implemented or have not gone far enough to reduce administrative burdens.

Result: Considering the level of bureaucracy and the effectiveness of government efforts to mitigate these challenges, it appears that both countries still face significant challenges. However, Germany's slightly better Index performance may indicate a more structured approach to reducing bureaucracy, although businesses still feel burdened. In contrast, the Czech Republic, despite numerous initiatives, has made less progress in making it easier to do business, suggesting the need for more impactful reforms. This makes Germany a more favorable environment in terms of dealing with bureaucracy for businesses, especially new entrants to the housing market who require more efficiency in administrative processes.

Germany offers better conditions in this section.

4.2.13 Environmental Regulations

Comparison and Assessment: Germany and the Czech Republic show a strong commitment to environmental sustainability in the housing sector through comprehensive environmental legislation. Germany's approach is highly structured, supported by laws such as the Climate Protection Act and the Building Energy Act, which set clear and ambitious targets for emissions reduction and energy efficiency. These laws aim to achieve greenhouse gas neutrality by 2045 and to integrate renewable energy sources extensively into building standards. The Czech Republic is focusing on aligning new and existing environmental regulations with market needs, such as the State Environmental Policy 2030 and the new Building Act. These measures aim to integrate environmental considerations more smoothly into the planning and development phases, emphasizing sustainability without limiting market

dynamism. The introduction of the Unified Environmental Assessment under the new Building Act illustrates a rational approach to incorporating environmental standards into real estate projects.

Result: Germany's environmental regulations are robust and aim for significant long-term impacts but may present challenges in terms of market flexibility and cost implications for developers. The Czech Republic's approach, while potentially less ambitious in terms of immediate environmental impact, offers a more balanced approach that can be more attractive to new businesses seeking an environment where the regulatory framework is designed to support both environmental sustainability and market growth. This flexibility and integration of environmental goals with economic viability provides a more conducive environment for new residential development company.

Czech Republic offers better conditions in this section.

4.3 Evaluation and Recommendation

This chapter presents an evaluation and recommendation based on a comparative analysis of the Czech and German markets. Using a previously defined systematic approach, the sections of each market are evaluated and weighted in the table to assess their overall suitability for a new development company.

The Table 13 presents the results of the comparison, after assigning each of the two markets' section points and calculating the weights according to the previously defined method.

Table 13: Evaluation of Comparison

| Section | DE | CZ | Weight | DE | CZ |
|-------------------------------------|-----------|-----------|---------------|-----------|-----------|
| Government policies on housing | 2 | 1 | 1 | 2 | 1 |
| Housing regulations | 1 | 2 | 1 | 1 | 2 |
| Key economic indicators | 1 | 1 | 2 | 2 | 2 |
| Economic forecast | 1 | 2 | 2 | 2 | 4 |
| Taxation | 1 | 2 | 1 | 2 | 4 |
| Demographic trends and urbanization | 1 | 2 | 1 | 1 | 2 |
| Customer preferences and behavior | 1 | 2 | 2 | 2 | 4 |
| Market trends | 1 | 2 | 2 | 2 | 4 |
| DESI index | 2 | 1 | 1 | 2 | 1 |
| Innovations in construction | 2 | 1 | 1 | 2 | 1 |
| Construction law | 2 | 1 | 2 | 4 | 2 |
| Bureaucracy level | 2 | 1 | 2 | 4 | 2 |
| Environmental regulations | 1 | 2 | 1 | 1 | 2 |
| Total | 18 | 20 | - | 27 | 31 |

Source: own processing

Based on the evaluation presented in Table 13, the Czech Republic scored four points more than Germany, with Germany scoring a total of 27 points and the Czech Republic scoring 31 points. From the analysis it is obvious that both markets have their strengths and weaknesses, and each market offers different opportunities. As Germany is a larger and stronger economy and has a deeply rooted and well-organized legal framework, reflecting a strong cultural commitment to systematic and robust legal processes, it offers more security. Thanks to its drive for technological progress, it can offer more potentially cost-effective innovations and processes, especially in the construction sector. On the other hand, the Czech Republic has a very dynamic real estate market with higher growth potential and a significant preference for owning rather than renting. It offers a more business-friendly environment with a lower tax burden and less strict regulations.

To conclude, in the context of a new development company, the Czech Republic offers better overall conditions with faster capitalization, a more dynamic market and a strong culture of real estate ownership and investment. While the market itself benefits from a less regulated environment, which helps business flexibility, it's important to note that this does not extend to the permitting process and legal structure for construction, which are particularly challenging in the country.

However, it is essential to keep in mind that success is never granted, especially in a business as complex as residential development. The success is highly dependent on the right management of all phases of the development process and the right evaluation and allocation of all variables, such as human capital, costs, financing, design and the all-important marketing and sales.

If all the above-mentioned conditions are successfully met, the Czech market can be recommended as more suitable for the new development company.

Since in the introduction it was mentioned that this thesis can potentially serve as a guide for new companies in the field of residential development, the last chapter will provide a model of phases for managing residential development project.

5 Model of Phases for Managing Residential Development Project

This chapter describes the model of phases for managing a residential development project. The model is based on the literature review and insights from expert interviews, which are summarized at the beginning of the third chapter of this thesis.

The Table 14 presents the model and its phases. These phases are described in more detail in the following chapters.

Table 14: The Model of Phases for Managing Residential Development Project

| Phase number | Phase title | |
|--------------|-----------------------------|--|
| 1. | Idea and concept creation | |
| 2. | Analysis of feasibility | |
| 3. | Site purchase | |
| 4. | Designing, cost calculation | |
| 5. | Permitting process | |
| 6. | Construction | |
| 7. | Management and disposal | |

Source: own processing according to (Personal communication, 2024)

Before describing each phase of the model, it is important to explain its structure. As presented in the Table 14, there are seven phases and Marketing and Sales, which is located next to all the other phases. As found out during the expert interviews, Marketing and Sales is a phase, or rather a process, that is crucial for all the other phases, especially until the start of the Construction phase. That is why it stands out in the table and accompanies all the other phases.

Finally, before describing each phase, it is important to point out that, in practice, the phases presented in the model may vary and overlap, depending on the specifics of each project.

The following chapters describe each phase of the project, highlighting the most important facts and processes, starting with a description of marketing and sales and its importance for the overall success of the project.

5.1 Marketing and Sales

The timing of marketing and sales initiatives is crucial in the life cycle of a development project. It is recommended to phase the marketing and sales process according to the development progress of the project. For example, before obtaining the building permit, it is effective to promote pre-sales, offer introductory prices and attract clients with reservation contracts that require only a small fee (e.g. 50,000 CZK/ 2,000 EUR). These contracts are usually flexible, which primarily benefits the client, allowing him to secure favorable conditions with minimal commitment. This approach not only motivates clients to enter into agreements, but also provides developers with a real-time gauge of market interest. If circumstances change, reservations can be returned, maintaining good customer relations for future interactions. Once official building permits are obtained, marketing should be fully prepared to actively pursue sales. At this point, it is possible to accelerate the entire sales process and begin collecting deposits from clients that would be difficult to secure without the permits. The marketing strategy should clearly communicate that prices may increase once building permits are issued, depending on market conditions, which may motivate customers to pre-sale. This strategy should be maintained until the desired level of pre-sales is achieved.

5.2 Idea and Concept Creation

The first phase of residential development, idea and concept creation, is fundamental and is driven by the developer's ability to use creative and imaginative thinking. This stage involves visualizing potential projects that improve or go beyond existing reality, which is an essential skill to start any development. It is mainly about generating ideas, estimating initial market response, and identifying suitable development sites. The ability to provide unique insights and preliminary conclusions from available information sets successful developers apart and improves their ability to respond to emerging market needs. (Ratcliffe et al., 2021)

Techniques such as brainstorming, nominal group technique, and the Delphi method are structured approaches that can help in the idea creation process. Brainstorming allows for a free flow of ideas, prioritizing quantity and creativity, which are later

reviewed to find valid options. The nominal group technique focuses on achieving team consensus on the best strategies and ideas, while the Delphi method leverages expert opinion to forecast market dynamics, which is key to strategic decision-making. In addition, risk management is also important from the start, with a focus on self-awareness, effective coordination, and monitoring of financial cycles. (Miles et al., 2015)

5.3 Analysis of Feasibility

The Analysis of Feasibility phase establishes the viability of a residential development project through a detailed, structured evaluation that informs and influences all subsequent phases. This phase is not only essential for validating the project's financial and operational assumptions, but also serves as a critical risk management tool. It should include a comprehensive set of analyses, such as an executive summary, market analysis, revenue projections, preliminary designs, geographic maps, cost projections, financing details, regulatory considerations, and an overall value estimation. (Reed and Sims, 2015)

The core of the feasibility analysis is the market analysis, which includes a deep investigation of current and projected market conditions that directly affect the success of the project. This analysis begins with a broad review of national economic conditions and narrows down to specific regional and local market dynamics, including competitive environment assessments and consumer demand forecasts. Each component, from financial projections to site-specific evaluations, contributes to a complete view of the project's viability, ensuring that the development is not only theoretically feasible, but also practically viable in current and future market scenarios. (Miles et al., 2015)

5.4 Site Purchase

Once the analysis of feasibility confirms the potential success of a development, the careful preparation of the site purchase begins. Before purchasing a property, a detailed legal review is important. Developers must investigate property ownership

and identify any liens or other issues that could be transferred to the new owner by mistake, potentially delaying the project. These legal complications could prolong the transfer of ownership, impacting the project's timeline and financial results. (Reed and Sims, 2015)

A comprehensive physical inspection of the site is also necessary to assess the suitability of the land for the intended development. This includes evaluating structural capabilities, accessibility, natural draining, and the availability of existing infrastructure. Identifying differences between current service levels and those required for development is essential, and the associated costs must be included in the development budget. In addition, the financing of the purchase is a significant factor, and securing favorable loan terms that reflect the best terms available at the time is key. Financing typically varies between short-term loans for immediate development costs and long-term financing for post-completion phases, depending on the assessed risk of the project, financial market conditions, and the credibility and track record of the developer. (Miles et al., 2015)

5.5 Designing, Cost Calculation

The designing and cost calculation phase involves making important decisions about the design of the project and ensuring that all elements are in line with the overall objectives of the development. Preliminary detailed drawings are prepared for zoning approvals and budget projections, requiring close attention to ensure accuracy and compliance with local regulations. (Ratcliffe et al., 2021)

After preliminary drawings and studies, detailed plans must be prepared. These plans are continually refined as more information becomes available and project specifics are finalized. The process includes evaluating the physical characteristics of the site, assessing potential risks, and ensuring that the design is feasible within the project's financial framework. Part of ensuring feasibility is a costing process where initial cost estimates are continually updated to reflect any changes or refinements in the design. This dynamic costing is important to maintain alignment with the project's budget. Changes to the design may be necessary at any stage, requiring flexibility and

effective coordination among the development team to make adjustments without significant impact. (Reed and Sims, 2015)

5.6 Permitting Process

Getting permission is key when developing a new property, especially if the property requires a change of use from its previous classification. At this phase, developers must work with the local building authority to secure the necessary approvals, often starting with outline planning permission. This preliminary approval determines the intended use of the property and the acceptable size or density of the development but does not allow construction to begin. Developers must provide enough information to describe the type, size, and form of the intended project. (Reed and Sims, 2015)

Throughout the building permitting process, given the challenges presented by, for example, the Czech regulatory framework, it is important to be prepared for a rigorous and potentially time-consuming procedure. This requires a strategic approach involving experienced consultants and a detailed understanding of local regulations to effectively manage this phase and minimize potential setbacks.

This phase may also involve negotiating planning agreements with the local authority, which can include additional obligations and costs, such as contributions to local infrastructure improvements. These agreements, if required, must be completed before building permits are issued and can have a significant impact on the overall cost and viability of the project. Developers must also secure other legal approvals, such as those related to heritage sites or infrastructure adaptations, to ensure that all legal requirements are met before proceeding with the development. (Reed and Sims, 2015)

5.7 Construction

During the construction phase, the developer faces the culmination of commitment in terms of finances, resources, and reputation. With contracts signed and construction underway, it is difficult to stop or significantly change the project without serious

financial consequences. Managing time, quality, and budget becomes essential as the developer transitions into a project management role. (Miles et al., 2015)

Throughout this phase, no quality-related compromises are acceptable, and shortcuts to save time or expense are not an option. The developer must ensure that the project stays on schedule and on budget, with some flexibility for unforeseen issues such as material delays or changing weather conditions. Effective project management often involves hiring a project manager to coordinate the design and construction process, especially for complex developments. This manager, along with the developer, must anticipate potential problems and make informed decisions in a timely manner to minimize delays and additional costs. Their experience and knowledge play a dominant role in overcoming challenges. In addition, it is important to continually monitor the real estate market during construction to ensure that the development remains in line with market needs. This may involve adjusting project specifications to reflect changing market conditions. (Reed and Sims, 2015)

5.8 Management and Disposal

The final phase, which is the key to realizing the financial viability of the project, involves securing tenants or buyers early in the process. Developers typically attempt to secure tenants/buyers before or shortly after construction begins, as financial institutions often require a significant percentage of the development to be pre-sold before releasing funds. Successful sales are built into the development plan from the beginning and adjusted throughout the life of the project. Decisions on when to sell are based on factors such as market conditions and stakeholder influences. If tenants or buyers are not secured by project completion, developers face financial risks from ongoing holding costs and potential reputational damage. (Reed and Sims, 2015)

After completion, developers often continue to work with occupants to address any operational issues, thereby enhancing their reputation. Early involvement of real estate professionals can help align the design with market expectations and ensure that the property effectively meets the needs of potential buyers. (Reed and Sims, 2015)

This phase underscores the importance of strategic planning, market alignment, and ongoing stakeholder engagement to ensure the long-term success and profitability of the development project.

The above-described model of phases for managing a residential development project uses the theoretical review as a base and is edited according to the insights from expert interviews by adding the marketing and sales phase, which is crucial in practice and accompanies all the other phases. The model can serve as a roadmap for navigating the business of a new residential development company and is applicable to both the Czech and German markets.

Conclusion

The main goal of this diploma thesis Comparison of Conditions for Managing Residential Development Projects in the Czech Republic and Germany was to analyze and compare the conditions for managing residential development projects in the Czech Republic and Germany and based on evaluation of the comparison, to provide a recommendation on which of the two markets a new company should enter in the field of residential development. Based on the literature review and expert interviews, the subsequent goal was to create a model of phases for managing residential development project.

In the first, theoretical part of this thesis, the residential development project was defined, and its specifics were explained. It was further described how three different authors define and describe the phases of residential development projects. In the final part of the theoretical review, an important analysis tool for analyzing conditions in Czech and German markets, the PESTLE analysis, was described.

The analytical part opened with a summary of the insights from expert interviews with two experts experienced in residential development. Based on the insights from expert interviews, the PESTLE analysis structure was modified by including sections for each of the PESTLE environments to provide relevant data for residential development and housing.

The analytical part continued with the analysis of following sections: government policies on housing, housing regulations, key economic indicators, economic forecast, taxation, demographic trends and urbanization, customer preferences and behavior, market trends, DESI index, innovations in construction, construction law, bureaucracy level and environmental regulations. These sections were analyzed for both the Czech and German markets.

After the analysis of each section, the results were compared and evaluated according to the method described at the beginning of the chapter on comparison. For the comparison, the context of the new residential development company was important, as each section from one market was compared with the same section from the other market, resulting in two points being assigned to the country that

offered better conditions in specific section, and one point being assigned to the country that offered worse conditions in the same section. If the conditions were similar, both countries received one point. Since, according to the insights of the expert interviews, some of the sections are more influential and important for residential development, all sections were weighted, with more important sections receiving a weight of two points and less important sections receiving a weight of one point. The points that each country received in each of the sections were then multiplied by the weights. The final step in the evaluation was to add up all the points from each country.

Based on the results of the comparison and its evaluation, the Czech Republic scored 31 points compared to 27 points of Germany. This led to the recommendation that for new company in residential development, the Czech Republic offers slightly better conditions than Germany.

During the analysis and the comparison, it was found out that Germany offers more security due to its strong and larger economy and robust legal framework with a strong cultural commitment to well organized legal processes. Due to its drive for technological progress, Germany can also offer more potentially cost-effective innovations and processes in the construction sector. The Czech Republic, in contrast, offers a very dynamic real estate market with higher growth potential and a significant preference of its population to own, rather than rent. It also offers a more business-friendly environment with a lower tax burden and generally less strict environmental and housing regulations. In the context of the new development company, which, according to insights from expert interviews, is managing initial capital limitations and focusing on strategies that provide faster returns to support growth and prioritizing for-sale projects over rental projects to mitigate financial risks and build market credibility, the Czech Republic offers better conditions for this type of company and for starting its business.

In the last chapter of the diploma thesis, the model of phases was created, based on literature review and insights from expert interviews. The model used the theoretical findings as a basis and was edited by adding the importance of marketing and sales strategies as a phase, or better a process, that accompanies all the other phases, as it is the main factor in shaping the financial viability and smooth progress of the

projects. The model can guide the operations of a new residential development company and is relevant to both the Czech and German markets.

In conclusion, it is important to note, that success is never a given, especially in the complex business of residential development, where the developer is exposed to a wide range of factors and must manage them all effectively. Success is highly dependent on the right management of all the phases of residential development described in the model, and the right evaluation and allocation of all variables such as human capital, costs, financing, design and the all-important marketing and sales.

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