MSc Program
Real Estate - Investment & Valuation

The Importance of Recovery Analysis and Exit Options in Emerging Markets´ Real Estate Project Financing – *A Credit Risk Manager´s View*

A Master’s Thesis submitted for the degree of
“Master of Science”

supervised by
Mag. Katharina Krilyszyn, MSc

Mag. Cosette Cornelia Kuhs

9902580

14th of February 2017, Vienna

Affidavit

I, **MAG. COSETTE CORNELIA KUHS**, hereby declare

1. that I am the sole author of the present Master's Thesis, "THE IMPORTANCE OF RECOVERY ANALYSIS AND EXIT OPTIONS IN EMERGING MARKETS' REAL ESTATE PROJECT FINANCING - A CREDIT RISK MANAGER'S VIEW", 146 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and
2. that I have not prior to this date submitted this Master's Thesis as an examination paper in any form in Austria or abroad.

Vienna, 14.02.2017

Signature

Dedication

To *Joseph Kuhs & Joseph Peter Kuhs* - my well beloved grandfather and father.

Preamble

My personal motivation for the master thesis is grounded on own, already deep hands-on experience in Credit Risk Management for Corporate, Structured and Project Finance deals in various Banks located in Austria with the goal of ending up with a kind of guidance to any Bank´s Credit Risk Manager who is engaged in the analysis of emerging markets´ real estate development projects.

My love for real estate I owe to my father who successfully managed for many years a company in the social domestic architecture and who introduced me to that very interesting world already as little child by just taking me to the construction sites. For encouraging me throughout my whole personal and professional life, I honestly want to say *thank you*.

Acknowledgment is also assigned to VTB Bank (Austria) AG, my current employer, who made my participation in the MSc Program Real Estate – Investment & Valuation possible within all its bounds. In all respects my biggest and wholehearted thanksgiving is due to Christian Müllner, Board Member for Risk Management, whose personal contribution, guide and simply his presence were always the main drivers for covering all the challenges in my professional life.

Deep thanks appertain also to Mag. Katharina Krilyszyn MSc who was ready to accept the supervision of my master thesis. Your very flexible, professional and straightforward style was more than helpful in terms of collaboration.

Last but not least I want to say thank you to my partner Oliver Kratochwil who had to strongly keep his nerve in the last two years given all the challenges I had to pass.

Summary of Master Thesis

When it comes to emerging market´s real estate project finance, the rationale for the master thesis is caused by the fact that a non-market-compliant conception for the real estate development project might most probably imply an elevated risk regarding the realization in terms of future sales and/or rents, out of which the Bank expects repayment of its loan provided. All in all, this might result in an increased *Sales* or *Vacancy Risk* which might further imply respective restructuring efforts on behalf of the Bank or a liquidation scenario of the real estate asset pledged in favour of the Lender. Recovery values out of a forced sale might imply usually very big haircuts at the expense of the Bank.

In case of real estate development financing the analysis of the creditworthiness is primarily forward-looking, i.e. future-oriented regarding the cashflows of the subject project. The Bank to be asked for providing a positive vote for a real estate project financing will do so only in case the repayment ability and the generation of an appropriate yield seem to be secured.

Thus, the main goal of the master thesis is 1. to investigate all the various risk factors to which a *European based* Bank is exposed to when being engaged in Real Estate Project Finance (i) in terms of providing loans for real estate projects (ii) with the focus on the emerging market Russia and (iii) covering not only the commercial real estate sectors like office and retail, but also the industrial real estate sector, 2. to show that there will always remain a certain level of residual risk for the Bank providing a loan for a real estate project by elaborating the *Importance of the Recovery Analysis and Exit Options,* and thus the *importance of an overall smooth market-compliant conception for real estate development projects* (iv) from a Credit Risk Manager's perspective and 3. to end up with *Credit Risk Recommendations* to be set out by the respective Credit Risk Manager who is in charge of the analysis when it comes to financing of real estate development projects in order to serve as mitigations for all the related emerging markets´ project finance risks.

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1 Introduction

Prior to providing a loan approval for the client´s financing need for a specific real estate project a fairly long and intensive process in terms of analysing all the respective risk perspectives will be required.
From a Bank´s perspective implying its available information basis, a Bank´s Credit Risk Manager being assigned to the analysis of the subject real estate project deal is basically supposed to examine a certain conclusiveness of the overall concept provided by the client. In that respect the relevant risk blocks like the **Borrower** (individual person or company), the **Project** itself (financing asset), the **Financing Structure** as well as the **Repayment Ability of the loan implying the performance of the project** will be analysed in detail.

When assessing real estate project financings many risk-relevant factors need to be considered in terms of

(1) **Credit Risk**,
(2) **Market Risk** and
(3) **Operational Risk**

serving as drivers for a potential positive recommendation provided by the Bank´s Credit Risk Management followed by the Credit Committee´s approval being usually the Bank´s authorized body for final financing approvals when it comes to decision-making on new deals.

Whether the project will be able to be realized in the light of the planned conception in terms of pricing as well as timing will be investigated by the Bank within an overall **Recovery Analysis in terms of Repayment Ability.** This is a very crucial part to be analysed by the Bank´s Credit Risk Management as repayment of the loan provided by the Bank will heavily depend on a successful realization of the project, i.e. out of the sales and/or lease proceeds of the realized project the loan shall be repaid.
The main issues to be investigated by the Bank´s **Recovery Analysis** do refer to

(1) the **Utilization**,

(2) the **Product subject to Sale**,

(3) the **Market Potential** as well as the

(4) **expected Recovery in terms of Project Realization and thus in terms of Repayment Ability**.

In case the Bank won´t believe in a successful overall realization of a real estate development project out of which it can expect repayment of its loan provided, it might decline the client´s application for financing.

From a Bank´s perspective it is also essential to consider potential ***Exit Options*** before providing financing for real estate development projects. When referring to the wording of "Exit Options" one should consider two different types thereof:

(1) **Exit Options in terms of Repayment Ability** as initially settled in case the project performs as expected and

(2) **Exit Options** in terms of

> (i) **Refinancing** by 3rd party or prolongation/extension of the tenor of the loan by the current Lender in case of project delay and
>
> (ii) **Acceleration/Liquidation/Forced Sale** by the current Lender or via court in case the project defaults, which would be considered as a *Worst Case Scenario* from the Bank´s perspective.

In that respect it is also crucial for the Credit Risk Management to obtain **Legal Opinions regarding Enforcement Risk** upfront**,** especially when focusing on real estate projects finance in emerging markets where the risks are considered to be basically much higher compared to those in more developed countries. It is also crucial to mention that the risk regarding a continuous change of regulatory and legal requirements implies to have a permanent and strong eye on the respective developments in terms of monitoring of the regulatory and legal environment.

From a Credit Risk Manager´s point of view it is strongly required to have a good and transparent knowledge about the current market value at any point in time during tenor of transaction including an estimate of the market value when initially approving a real estate project deal – mainly to be prepared for a Worst Case Scenario, i.e. in case of a need to accelerate the loan by liquidation, but also for monitoring purposes. The real estate asset which is usually 1st ranking pledged in favour of the Bank implies the need for submission of yearly re-valuations.

The Bank can either undertake the valuation by itself when having designated valuation specialists in house and/or it could obtain external **Market Valuation Reports** from appraisers being acceptable for the Lender and usually at Borrower´s costs. In any case the Bank has to do a plausibility check in case external appraisals are obtained in order to meet ordinary due diligence requirements which is very crucial for Credit Risk Managers in the light of prudent banking requiring compliance with the respective personal duty of care and trust.

1.1 Research Proposal

When it comes to project finance the **rationale for the research proposal** for the master thesis is caused by the fact that a non-market-compliant conception for the real estate development project might most probably imply an elevated risk regarding the repayment of the loan provided. The repayment is dependent on the future sales and/or rents. All in all, this might result in an increased ***Sales*** or ***Vacancy Risk*****,** which might further imply restructuring efforts on behalf of the Bank or a liquidation scenario of the real estate asset pledged in favour of the Lender. Recovery values out of a forced sale might imply usually very big haircuts at the expense of the Bank.

In case of real estate development financing the analysis of the creditworthiness is primarily forward-looking, i.e. future-oriented meaning that the Credit Risk Manager has to analyse the future cashflows of the project.

A Bank which is asked to provide a positive vote for a real estate project financing will do so only in case the repayment ability and the generation of an appropriate yield seem to be secured.

Given the broad topic around project finance and in order to specifically address the research proposal, the subject master thesis is limited to the following:

1. to investigate all the various risk factors to which a European based Bank is exposed to when being engaged in Real Estate Project Finance

(i) in terms of providing **loans** for real estate projects

(ii) with the focus on the **emerging market Russia** and

(iii) covering not only the **commercial** real estate sectors like office and retail**,** but also the **industrial real estate sector,**

2. to show that there will always **remain a certain level of residual risk for the Bank** providing a loan for a real estate project by elaborating the ***Importance of the Recovery Analysis and Exit Options,*** and thus the importance of an overall market-compliant conception for real estate development projects

(iv) from a **Credit Risk Manager's perspective** and

3. to end up with Credit Risk Recommendations for the financing of real estate development projects serving as **mitigations for the related risks.**

1.2 Research Method

Given the character of the *Research Proposal* described in chapter 1.1 the most applicable research method refers to a **qualitative research approach or method** implying the following: *"This type of research methods involves describing in detail specific situation using research tools like interviews, surveys, and observations. Qualitative Research is primarily exploratory research. It is used to gain an understanding of underlying reasons, opinions, and motivations. It provides insights into the problem or helps to develop ideas or hypotheses for potential quantitative research. Qualitative Research is also used to uncover trends in thought and opinions, and dive deeper into the problem. Qualitative data collection methods vary using unstructured or semi-structured techniques. Some common methods include focus groups (group discussions), individual interviews, and participation/observations. The sample size is typically small, and respondents are* *selected to fulfil a given quota."*[1] Hence, this type of research method refers to a **theoretical research**, i.e. a non-empirical approach to research, which usually comprises investigation of most published works.[2] In addition to theoretical research, the master thesis benefits from the author´s own broad range of practical experience.

1.3 Structure

In terms of structure the master thesis covers in chapter 1 the rationale of the research proposal as well as the research method used, chapter 2 is presenting the status of regulatory references and bibliography, definitions and models related to specialized lending and the real estate investment process addressing the main real estate market actors who are exposed to emerging market risks in countries like Russia. In addition, the various real estate market sectors covering the commercial and industrial sector are addressed.

On that basis, chapter 3 is pointing out the various market, project, structure and relationship risks.

Chapter 4 is continuing with figuring out all the challenges of a Bank´s Credit Risk Management which is exposed to real estate development financing in emerging markets. The crucial role of a Bank´s Credit Risk Management will be investigated. Based on the information about best-practice data requirements for project finance, the importance of market-compliant project and financing concepts is discussed thereby starting with providing an understanding of the real estate development process per se and ending up with a statement of the related recovery analysis challenges and respective enhancements in terms of exit options in case of a project´s poor performance.

How to manage real estate project finance risk in Russia is addressed in chapter 5 by elaborating the specifics and peculiarities of the Russian real estate market and hence of the related real estate project finance risks comprising also financing structure

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[1] https://en.wikipedia.org/wiki/Types_of_research_methods_and_disciplines - retrieved as of Feb 12, 2017.

[2] c.f. https://en.wikipedia.org/wiki/Types_of_research_methods_and_disciplines - retrieved as of Feb 12, 2017.

risks in Russia. Key reasons and drivers for real estate financings in an emerging market like Russia are presented as well.

Finally, chapter 6 is summarizing the real estate project finance risk categories and the related due diligence requirements in order to end up with a set of recommendations, which a Bank´s Credit Risk Manager should consider.

2 Regulatory References, Definitions and Models

The following chapter will address not only regulatory references, but also real estate market related definitions, models and concepts including the specifics of the real estate investment process with its market actors by covering certain market sectors as well.

2.1 Status of Regulatory References and Bibliography

As the focus of the master thesis will be on banks which are registered in Europe and thus being subject to Basel II and the supervision by the European Central Bank "ECB" the following tables shall provide an overview of the main acts, directives, regulations etc. implying various **regulatory and legal requirements**:

Official document **(Act, directive, regulation etc.)**	**Author / Source**
CRD, directive 2006/48/EC (International Convergence of Capital Measurement and Capital Standards (Basel II), June 2006 Revision)	**Council of the European Union, EU Directive 2006/48/EC, 30 June 2006**
Guidelines on Credit Risk Management, Rating Models and Validation	**Austrian Financial Market Authority (FMA)/ Oesterreichische National Bank (OeNB), Nov. 2004**
Bankwesengesetz (BWG), Federal Law on Banking, Austria	**(As amended) by Federal Law Gazette I No. 60/2007**

Legal Specifics of Basel II in Austria
Basel II Approach
1. **Standardised Approach (STA) according to Article 22a BWG**[3]
2. **Internal Rating Based Approach (IRB) according to Article 22b BWG**: a. ***Equity***: PD/LGD[4] Approach according to Article 77 (4) SolvV[5]; Grandfathering according to Article 103e (11) BWG b. ***Investments in Collective Investment Undertakings***: Simple risk weight approach according to Article 77 (3) SolvV **c. *Specialised Lending*: Supervisory Slotting Approach according to Article 74 (3) SolvV**

Fig. 1: Overview Regulatory References related to Specialized Lending transactions by Banks under ECB supervision[6]

Referring to the chosen qualitative research method as pointed out in chapter 1.2 and given an extensive availability of literature regarding the content of the subject master thesis, it is not meaningful to provide an entire overview of bibliography in terms of existing research papers for the subject areas of Specialized Lending, Corporate versus Project Finance, Risk Management, Credit Risk Management, Real Estate Investment Process, Emerging versus Developed Market Risk, Recovery Analysis or Exit Options.

In any case, an increase of literature available is visible implying the various linkages and interdependences between real estate property, its underlying land value, planning policies and even the financial system.[7]

The list of sources is recorded in chapter "Bibliography" of the master thesis.

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[3] BWG ……. *Bankwesengesetz*
[4] PD/LGD … *Probability of Default/Loss Given Default*
[5] SolvV …… *Solvabilitätsverordnung*
[6] c.f. DIRECTIVE 2006/48/EC. c.f. International Convergence of Capital Measurement and Capital Standards ('Basel II', 2005). c.f. European Commission, *Commission Services Third Consultative Document*, Working Paper (July 2003).
[7] c.f. Theurillat Thierry, Rérat Patrick & Crevoisier Olivier (2015): The real estate markets: Players, institutions and territories. In: *International Journal of Urban and Regional Research,* Vol. 52(8) 1414-1433, Switzerland, p. 1414f.

2.2 Definition of Specialized Lending according Basel II

The term ***Specialized Lending***, or colloquially ***Project Finance***, comprises primarily financing of complex and capital-intensive undertakings, particularly large-scale projects in the area of energy, engineering, telecommunications or traffic infrastructure. In addition, project finance also applies to real estate and object financing.

Specialized lending transactions are based on the notion that risks in the transaction are identified upfront, allocated to transaction parties and mitigated where economically necessary. The upfront risk allocation, high "leverage", i.e. the proportion of debt, and use of special purpose limited recourse financing vehicles sometimes allow comparisons to structured finance transactions. A key distinction between the two areas of the capital markets is the **operational risk** of project financings, which requires an assessment of technical risks especially around new construction works, and the fact that project **cash flows are dependent on operating performance** - which may vary markedly.[8]

Basel II provides the following two definitions related to real estate project financing:

Project Finance (PF) refers to a *"method of funding in which the lender looks primarily to the revenues generated by a single project, both as the source of repayment and as security for the exposure. This type of financing is usually for large, complex and expensive installations that might include, for example, power plants, chemical processing plants, mines, transportation infrastructure, environment, and telecommunications infrastructure. Project finance may take the form of financing of the construction of a new capital installation, or refinancing of an existing installation, with or without improvements."*[9]

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[8] c.f. European Commission, Review of Capital Requirements for Banks and Investment Firms. In: *Commission Services Third Consultative Document*, Working Paper (draft EU directive on regulatory capital requirements, July 2003), Annex D-1, No 8.

[9] DIRECTIVE 2006/48/EC (International Convergence of Capital Measurement and Capital Standards (Basel II) of the European Parliament and of the Council revised as of June 2006 relating to the taking up and pursuit of the business of credit institutions. In: *Official Journal of the European Union* (OJ No. L 177 of June 2006), Para 221.

"In such transactions, the lender is usually paid solely or almost exclusively out of the money generated by the contracts for the facility's output, such as the electricity sold by a power plant. The borrower is usually an SPE that is not permitted to perform any function other than developing, owning, and operating the installation. The consequence is that repayment depends primarily on the project's cash flow and on the collateral value of the project's assets. In contrast, if repayment of the exposure depends primarily on a well-established, diversified, credit-worthy, contractually obligated end-user for repayment, it is considered a secured exposure to that end-user."[10]

Income-producing real estate (IPRE) implies a *"method of providing funding to real estate (such as, office buildings to let, retail space, multifamily residential buildings, industrial or warehouse space, and hotels) where the prospects for repayment and recovery on the exposure depend primarily on the cash flows generated by the asset. The primary source of these cash flows would generally be lease or rental payments or the sale of the asset. The borrower may be, but is not required to be, an SPE, an operating company focused on real estate construction or holdings, or an operating company with sources of revenue other than real estate. The distinguishing characteristic of IPRE versus other corporate exposures that are collateralised by real estate is the strong positive correlation between the prospects for repayment of the exposure and the prospects for recovery in the event of default, with both depending primarily on the cash flows generated by a property."* [11]

This definition emphasizes again the fact that the **repayment ability is strongly dependent on the performance of the project.**

2.2.1 Exposure Categorization according to BASEL II

As a bank cannot undertake *credit assessment* for its whole loan portfolio in the same way in order to investigate the borrowers´ repayment abilities as being required per

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[10] DIRECTIVE 2006/48/EC, Para 222.
[11] DIRECTIVE 2006/48/EC, Para 226.

contractual obligations, it is crucial to consider three main challenges justifying the importance for defining segments for the Bank´s respective credit assessments:

1. *"The factor relevant to creditworthiness varies for different borrower types.*
2. *The available data sources vary for different borrower types.*
3. *Credit risk levels vary for different borrower types."*[12]

Thus, segmenting a bank´s loan portfolio refers to a main pre-condition when it comes to assessing the creditworthiness of all borrowers being exposed to specific risks.

A general segmentation and regulatory categorization of assets from a business perspective and being based on *best-practice* is basically provided by the so-called *IRB approach, i.e. the Internal Ratings Based Approach*[13] under Basel II and the draft EU directive:

- Sovereigns/Central Governments
- Banks/Institutions
- **Corporates comprising the sub segment for Specialized Lending**
- Retail customers
- Equity.[14]

The requirements for a more specific segmentation is driven by the fact that the general segments are basically not homogenous, thus leading to a more granular segmentation for Specialized Lending within the Corporate segment implying the following sub-classes of Specialized Lending which are related to the real estate segment:

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[12] OeNB/FMA, Rating Models and Validation (2004). In: *Guidelines on Credit Risk Management* prepared by Oesterreichische Nationalbank (OeNB) in cooperation with the Financial Market Authority (FMA), p. 8. http://www.oenb.at and http://www.fma.gv.at - retrieved as of Aug 19, 2016.

[13] c.f. OeNB/FMA, Federal Banking Act (Bankwesengesetz - BWG) as amended by Federal Law Gazette I No. 60/2007, Section V Regulatory Standards, Subsection 2, Credit Risk, Article 22b, p. 54 ff. http://www.oenb.at and http://www.fma.gv.at - retrieved as of Aug 19, 2016.

[14] European Commission, Review of Capital Requirements for Banks and Investment Firms. In: *Commission Services Third Consultative Document*, Working Paper (draft EU directive on regulatory capital requirements, July 2003), Article 47, No. 1-9.

Specialized Lending	
Financing of (income-producing) Real Estate	i. Before the Project ii. During the Project

Fig. 2: Best-Practice Segmentation for Real Estate within Specialized Lending[15]

All sub-classes of Specialized Lending do imply the following characteristics:

- "*The exposure is typically to an entity (often a special purpose entity (SPE)) which was created specifically to finance and/or operate physical assets;*
- *The borrowing entity has little or no other material assets or activities, and therefore little or no independent capacity to repay the obligation, apart from the income that it receives from the asset(s) being financed;*
- *The terms of the obligation give the lender a substantial degree of control over the asset(s) and the income that it generates; and*
- *As a result of the preceding factors, the primary source of repayment of the obligation is the income generated by the asset(s), rather than the independent capacity of a broader commercial enterprise*."[16]

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[15] c.f. OeNB/FMA, Rating Models and Validation (2004). In: *Guidelines on Credit Risk Management* prepared by Oesterreichische Nationalbank (OeNB) in cooperation with the Financial Market Authority (FMA), p. 10. http://www.oenb.at and http://www.fma.gv.at - retrieved as of Aug 19, 2016.

[16] European Commission, Review of Capital Requirements for Banks and Investment Firms. In: *Commission Services Third Consultative Document*, Working Paper (draft EU directive on regulatory capital requirements, July 2003), Article 47, No.8.

2.2.2 Key characteristics of Specialized Lending Transactions

A typical real estate project finance structure would have the following elements:

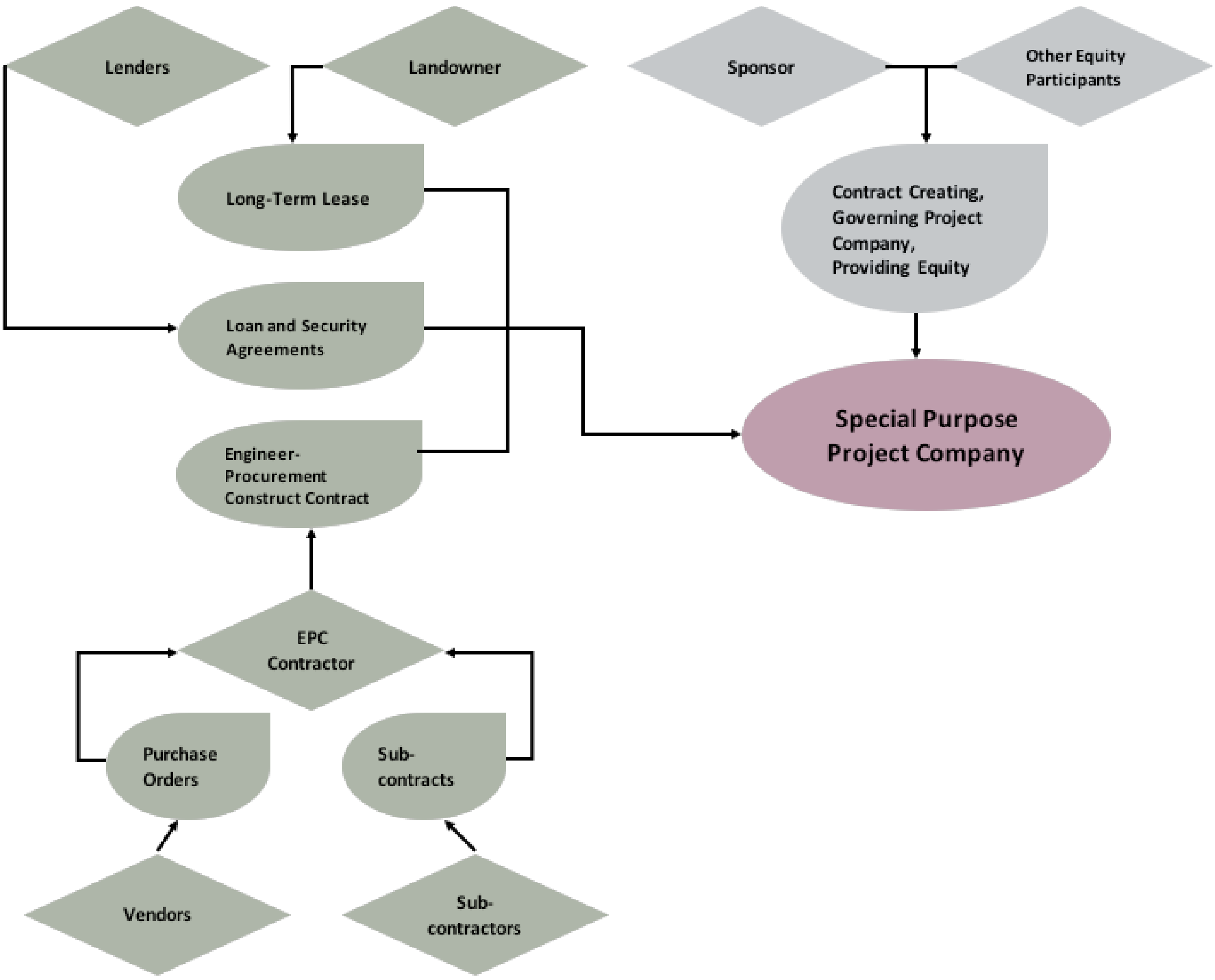

Fig. 3: Typical Project Finance Structure[17]

Given the above and in accordance with Basel II requirements, ***Specialized Lending*** shall refer to transactions where all of the following conditions are met:

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[17] Author´s own.

1. "The project constitutes a ring-fenced accounting entity. This requirement can be met by setting up a SPV or other structural measures such as separate clearing account, no sole access authority or right of cancellation of the borrower, assignment of claims.

2. The bank has contractually guaranteed control over the cashflows generated by the asset as well as over the assets themselves.

3. The source of repayment of a project loan must be predominately based on the cash flows generated by the assets – at least 80% over the maximum acceptable loan term, rather than on the cashflows produced by a broadly-operating company. This cashflow definition also includes potential proceeds from a non-distressed sale on the part of the borrower."[18]

2.2.3 Key differences between Project Finance and Corporate Finance

There is a continuum between projects and corporate issuers and, sometimes, classifying an issuer as a project or a corporate is not entirely straightforward, especially when an **issuer transitions from project finance to a more corporate form.**

The following table below shall try to help in distinguishing between Project and Corporate Finance by elaborating the respective specifications, also in terms of strengths and opportunities, weaknesses and threats for each financing segment:

[18] European Commission, Review of Capital Requirements for Banks and Investment Firms. In: *Commission Services Third Consultative Document*, Working Paper (draft EU directive on regulatory capital requirements, July 2003), Article 47, No. 1-9. c.f. DIRECTIVE 2006/48/EC, para 222 and 226.

Project Characteristics	Corporate Characteristics
▪ A **creature of contracts**; usually there is at least a fundamental contract which gives the right to issuer to operate and generate revenues for a given period of time (offtake contract, concession, licence, lease, right to exploit a reserve etc.). Other contracts may be a supply/fuel contract, an operating and maintenance contract, a construction contract as well as financing contracts. The contracts, if well structured, allocate risks to the parties who can best manage them.	▪ A **creature of demand**; usually, no single contract is fundamental to the business of the issuer.
▪ **Special purpose entity** with limited ability to change its scope of business as defined in the contractual arrangements.	▪ **Few restrictions on the scope of business.**
▪ Usually **construction risk at inception** (i.e. new asset); may or may not be exposed to large capital expenditure over time to maintain availability of the asset.	▪ Usually **operating assets**; construction risk on a single asset is rarely a major risk for the entire company; on-going capital expenditures to maintain competitive position.
▪ **Structural protection** available to lenders (permitted distributions to shareholders subject to pre-agreed tests, cash waterfall, controlled accounts, restriction regarding new business, sale of assets and acquisitions etc.). In addition, prevalence of direct agreements providing step-in, cure and step-out regime for secured creditors. Meaningful triggers to ensure that in severe stress scenario, control passes from equity to debt to achieve timely rectification.	▪ Usually **low level of protection.**

▪ **Prevalence of amortizing long-term debt**; limited amount of debt and tests for additional indebtedness; high leverage reflecting the usual prevalence of cash flow contractedness; book equity depletes over time. All or most of the debt has to be repaid by end of concession/licence/ useful life of asset/natural resource reserves, etc.	▪ **Amortizing and bullet**; few restrictions on ability to incur additional indebtedness so that debt is expected to grow over time; book equity usually a permanent element of the structure. Assumption is that the company will keep refinancing its loans.
▪ **Reliance on specific asset/reserve future cash flows to repay debt. Ring-fencing of SPV; non-recourse to owners.**	▪ **Reliance on corporate cash flows or value of assets to repay debt**
▪ **Specific security for senior debt** on material contracts, accounts, revenues and account receivables, shares, all assets, etc.	▪ **No security or security on assets**
▪ **Creditor control and oversight over business performance** through budgets and financial projections; reliance on specialist due diligence consultants.	▪ **Management discretion**
▪ **Dedicated liquidity** through debt service reserve funds, major maintenance reserves, etc.	▪ **Management discretion**
▪ **Single asset-product/finite life**. **Small to medium size**. Whole life forecasting of business risks and cash flows and extensive sensitivity analysis.	▪ **Multi assets & products/ potentially infinite life. Typically, large size. Short to medium term horizon.**

Fig. 4: Key differences between Project Finance and Corporate Finance[19]

[19] c.f. Moody´s Investor Services Global Project Finance Methodology (2011). http://www.moodys.com/reseachandratings - retrieved as of Jan 15, 2011.

For the issuers which fall somewhere on the continuum and are not clearly either a project or a corporate or for project finance issuers operating in an industry covered by a corporate finance industry methodology, it is recommended to use a combination of the applicable methodologies.

2.3 The Real Estate Investment Process

The Credit Risk Manager´s view on the *Real Estate Market and its related Real Estate Project Finance Risks* will be extensively discussed in chapter 3. However, due to definition purposes the main *Real Estate Market Actors* and the three general *concepts* based on which the whole process is constituted will be shortly mentioned at this stage as follows:

- *"Real estate parties and sectors, the real estate development and operating process and real estate investment vehicles all constitute a means as well as a threat to the achievement of investments goals […]*
- *The degree to which real estate parties and processes harm or help investment objectives generally changes over time […]*
- *Changes in the activities of these parties and the nature of these processes create or destroy investment value."*[20]

Such general conception of the real estate investment process refers to the main risk blocks which a Credit Risk Manager has to identify and to mitigate.

2.3.1 Real Estate Market Actors

The real estate market is fairly complicated as it comprises many stages. Hence, it is crucial that all related real estate market actors have defined roles of responsibility which have to be carried out in an appropriate manner. Even the non-presence of only one market actor could endanger the whole project in terms of success.[21]

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[20] Bifani Darin (2012): Managing BRIC Real Estate Investment Risk, 1. Edition, Euromoney Institutional Investor PLC, London, United Kingdom, p. 3.
[21] c.f. Bifani Darin (2012), p. 5.

Basically four types of ***Project Sponsors*** classified according to their respective objective in the project can be distinguished: (i) industrial sponsors, (ii) public sponsors, (iii) contractor/sponsors, and (iv) financial investors.[22]

The following graph shall provide an overview of all the real estate market actors, who contribute largely to the creation (or destruction) of the envisaged investment value:

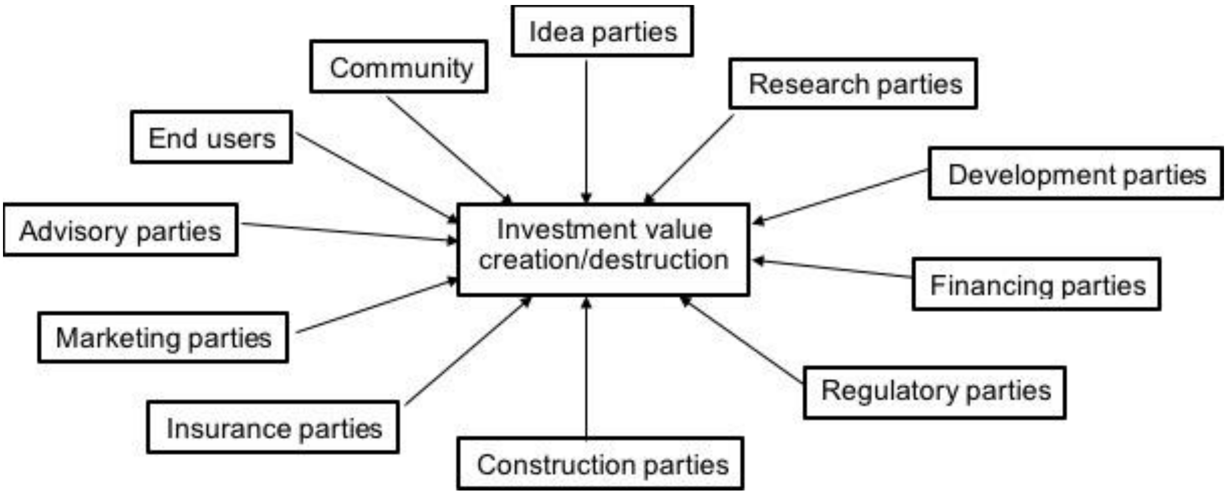

Fig. 5: Real Estate Market Actors[23]

The above roles are to a large extent self-explaining. In any case, the number, level of specialization as well as the expertise of the involved project parties result in a substantial overall cost for the project company.[24]

2.4 Emerging Market Risks of BRIC countries

The increasing economic importance and strength of the ***Emerging Markets*** is part of a rapid economic development within the last twenty years.

Their economic importance and significance is expected to continue strongly implying the following drivers: stronger currencies, developing legal systems, economic growth, strengthening financial systems as well as increased international

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[22] c.f. Gatti Stefano (2013): *Project Finance in Theory and Practice*, 2. Edition, Academic Press, Imprint of Elsevier, Oxford, United Kingdom, p. 4.
[23] c.f. Bifani Darin (2012), p. 6.
[24] c.f. Gatti Stefano (2013), p. 77.

integration do lead to decreased risk perception of potential investors accompanied by economic growth projections, highly favourable demographics, extensive urbanization trends and thus large sizes of foreign investment.
According to forecasts 19 of the 30 world´s top markets shall be countries which are today referred to as *emerging markets*. Fairly 80% of global economic growth by 2050 may be derived from the emerging markets. A significant set of emerging markets is the **"BRIC" countries** comprising *Brazil, Russia, India* and *China*. The economic power of the BRIC countries is enormous when taking into consideration that these countries comprise a very large percentage of the world´s total land mass and population.[25]

One should consider the combined economic power of the set of these countries, i.e. the BRIC countries, when seeking to do economic forecast to the much safest extent. In particular, the subject master thesis will address real estate financing challenges on the Russian market.[26]

2.5 Real Estate Market Sectors

There are an extensive number of market factors to be identified, mitigated and managed by a Bank´s Credit Risk Manager. A common understanding to think about a general *segmentation* in terms of real estate sectors refers to the following *commercial* sectors like (i) *office* sector, (ii) *retail* sector, and to the *industrial* sector. The residential and special real estate sector likes hotels, entertainment etc. are not subject to the master thesis.
Each sector could be further broken down into sub-sectors according to property type, property use, property quality and end-user.

All real estate sectors do refer to the following characteristics:

- different real estate sectors do imply different risk types and levels caused by different market factors;

[25] c.f. Bifani Darin (2012), p. xxxviii.
[26] c.f. Bifani Darin (2012), p. xl.

- market factors do fluctuate over time;
- different market levels are subject to different periods of time; and
- Different market levels influence real estate financing in a different way in terms of positive and negative impacts. [27]

All in all, real estate market sectors do not imply risk: *"risk is only a function of a specific investment objective. Markets do not have good and bad days."*[28]

The following chapters will provide an overview of these sectors by explaining the investors´ basic business models, which are crucial for a Credit Risk Manager to understand as they could partly refer to the underlying *financing purpose*. Thereby also the main risks will be investigated to which each real estate sector is exposed to.

2.5.1 Office Sector

When it comes to project finance, the office sector comprises real estate which is subject to lease agreements with corporate tenants.
A common specification of office building depending on the degree of quality refers to: (i) Class A, (ii) Class B and (iii) Class C office buildings whereas A stands for highest quality standards in terms of location, construction appearance, incentives, management and tenor mix.

2.5.1.1 Business and Financing Models for Office Sector

Under the general model of holding office buildings for rental income the following strategies for improving investment returns are amongst others very important to be understood by a Credit Risk Manager:

- use of financial leverage in case debt carrying costs are below projected equity returns;

[27] c.f. Bifani Darin (2012), p. 20-31.
[28] Bifani Darin (2012), p. 20.

- property improvements, cost cutting measures or amendment of management strategies as repositioning measures in case of acquisition of a poorly performing real estate asset;
- seeking for better tenants in terms of creditworthiness to reduce default risk on leases and/or to act as a "magnet" for other tenants;
- improvement of energy use, reduction of harmful environmental impact and protection of health by introduction of "green building" standards and/or
- taking advantage of cyclical asset price movings by timing the purchase (financed by the Bank) and sale (recovery proceeds for the Bank).[29]

2.5.1.2 *Office Sector Risks*

The main risks to be considered for office real estate financings are as follows:

Office Real Estate Sector Risks	**Explanation**
Economy	High influence on office space budgeting
Performance of the companies/tenants	The strength of the office market is correlating with the office tenants and their growth of business
Outfall of a key tenant	Usually office buildings have only few tenants
Long construction periods	Significant amount of time for new office space to come on the market; high demand could imply rent pressure

Fig. 6: Overview Office Real Estate Sector Risks[30]

[29] c.f. Bifani Darin (2012), p. 23.
[30] c.f. Bifani Darin (2012), p. 24.

2.5.2 Retail Sector

Typically, the retail sector can be divided into the following retail establishments: (i) large multi-store malls, (ii) standalone *big box* retailers, (iii) small outdoor retail establishments, (iv) *pop-up* retail established only for certain events and (v) mail, catalogue or internet retail providers. Within each retail establishment many different products are offered, which can be roughly summarized by the following product segments like food and beverages, clothing and accessories, motor vehicles, electronics and appliances, books and music, sporting goods, furniture, drugs and cosmetic. Depending on the degree of specification one could further break down the above mentioned product segments to more granular sub-segments.[31]

2.5.2.1 Business and Financing Models for Retail Sector

Investors´ strategies in the retail sector, about which a Credit Risk Manager should be aware of, can refer to strategies like:

- provision of management services by mall operator to increase income;
- reduction of operating costs (e.g. power costs) by introducing cost audits on regular basis;
- refinancing of existing debt in order to elevate a property´s after-debt payment cash position;
- introduction or increase of fees for parking lots;
- diversification of mall portfolio by acquisition of other malls;
- alleviation of access to the mall by creating mall entry points;
- alleviation of access to the mall by creating parking space with parking slots;
- attraction of better key tenants by upgrading mall facilities;
- separation of anchor tenant to be separately sold in case of need;
- sensible product and service mix;
- introduction of early warning signals for weak tenants in terms of creditworthiness in order to reduce tenant outfall risk.[32]

[31] c.f. Bifani Darin (2012), p. 24.
[32] c.f. Bifani Darin (2012), p. 25.

2.5.2.2 Retail Sector Risks

The main risks to be considered by a Credit Risk Manager in case of retail real estate financings are as follows:

Retail Real Estate Sector Risks	Explanation
Economy	In case of a poor performing economy the populations´ consumer confidence falls, especially regarding luxury products
Demographics	High influence on the demand for good types and the level of price which an individual is ready to pay for these goods
Availability of consumer loan	Strong reliance on availability of consumer loans; consumer spending usually falls when interest rates go up
Cost of goods	Subject to currency risk
Economic conflict of interests	Between individual retail store operators and mall owners
Extreme competition	Relatively low levels of barriers to entry
High operating costs	Difficulties in reducing labour costs and contractually agreed payments with 3rd parties in case of drop in economy

Fig. 7: Overview Retail Real Estate Sector Risks[33]

[33] c.f. Bifani Darin (2012), p. 25 f.

2.5.3 Industrial Sector

Industrial real estate properties comprise usually storage of industrial goods, assembly or construction real estate assets being specified by the following industrial building types: (i) *light manufacturing buildings*, (ii) *heavy manufacturing buildings*, (iii) *industrial parks*, (iv) *warehouses* and (v) *development and research parks.*[34]

2.5.3.1 Business and Financing Models for Industrial Sector

Typically, the following business models for industrial sectors envisaged by an investor need to be understood by a Credit Risk Manager:

- renegotiation of credit terms for debt-purchased properties;
- provision of property management services;
- attraction of strong key tenant in terms of creditworthiness;
- introduction of early warning signals for weak tenants in terms of creditworthiness in order to reduce tenant outfall risks;
- targeting higher rent industrial activities by upgrading the property.[35]

2.5.3.2 Industrial Sector Risks

When it comes to financing of industrial real estate properties, a Bank´s Credit Risk Manager should have an eye on the following main risks:

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[34] c.f. Bifani Darin (2012), p. 26.
[35] c.f. Bifani Darin (2012), p. 27.

Industrial Real Estate Sector Risks	Explanation
Economy	Strong correlation with the performance of the industrial real estate sector; difficulties for companies to quickly exit a market due to size of tenant operations
Regulatory and legal environment	Strong impact on import and export volumes; potential import and export restrictions

Fig. 8: Overview Industrial Real Estate Sector Risks[36]

2.5.4 Market Sectors´ Risk Profiles

The following graph provides an overview of the market sectors, their risk profile and expected "ROI", i.e. Total Return on Investment. The office real estate market sector is assumed to imply the lowest risk profile and hence also the lowest ROI, whereas special real estate properties like hotels are considered to imply quite high risk profiles and therefore high ROI:

[36] c.f. Bifani Darin (2012), p. 27.

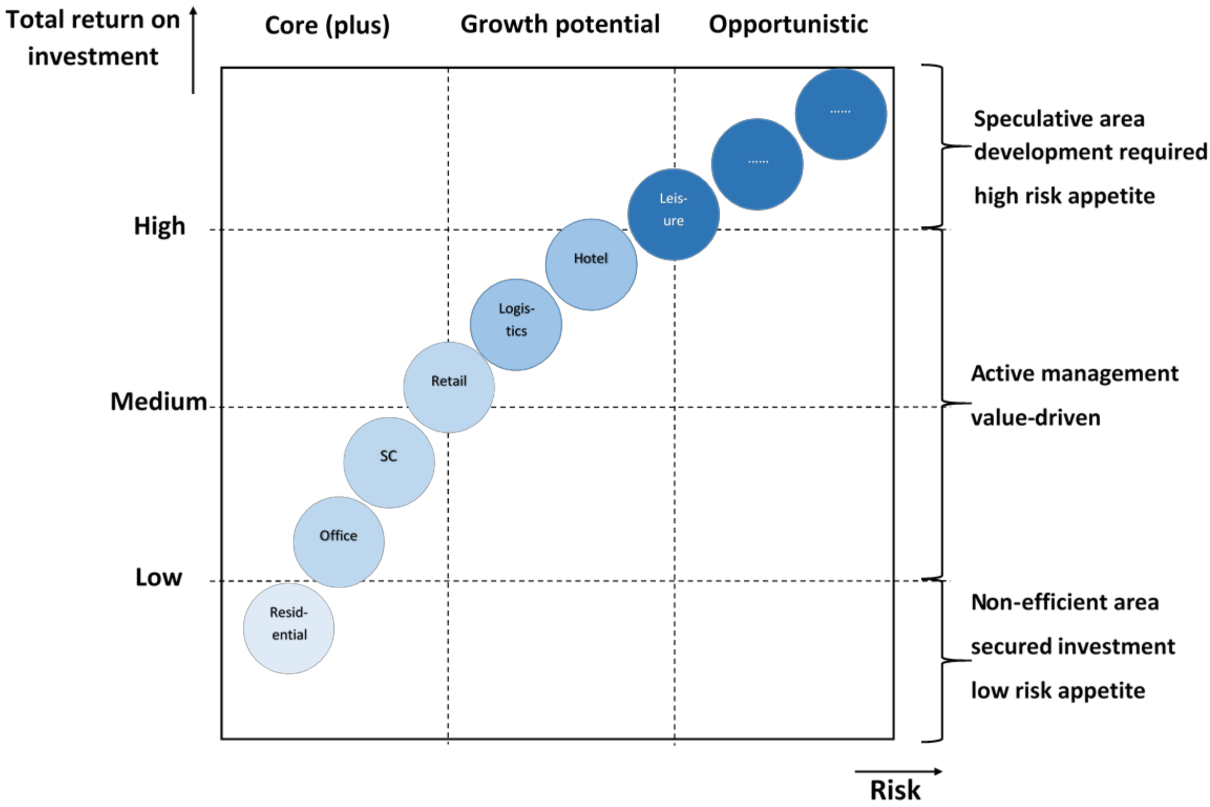

Fig. 9: Market Sectors´ Risk Profiles[37]

[37] c.f. Kraus Michael (2015): *Commercial Real Estate and Centre Management*. In: MSc Real Estate – Investment and Valuation, Presentation, Technical University of Vienna (TU Vienna), Vienna. p. 13 https://cecnet.tuwien.ac.at - retrieved as of Sept 20, 2016.

3 The Real Estate Market and its Real Estate Project Finance Risks

Chapter 3 is investigating the Real Estate Market by figuring out all the related real estate project finance risks comprising (1) market, (2) project, (3) operational, (4) business strategic, (5) investment and financing exit, (6) finance structure as well as (7) relationship risks.

3.1 General Implications and Recent Developments

As having pointed out in chapter 2, most of the existing literature refers to Project Finance as *"financing that as a priority does not depend on the soundness and creditworthiness of the sponsors, namely, parties proposing the business idea to launch the project. Approval does not even depend on the value of assets sponsors are willing to make available to financers as collateral. Instead, it is basically a function of the project´s ability to repay the debt contracted and remunerate capital invested at a rate consistent with the degree of risk inherent in the venture concerned."*[38]

An important role as a clearly identified profitable subsector of global banking is assigned to *Project Finance* since the early 1980s. A significant increase in use of project finance techniques over the past two decades was and is caused by

- a huge transfer of mainly debt capital to emerging countries with usually week legal and regulatory frameworks implying a general incentive for multinational investors and
- a massive demand for cheap resources in terms of energy and minerals to be met by a demand for an exploration of those natural resources being true for emerging countries.[39]

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[38] Gatti Stefano (2013), p.1.

[39] c.f. Fight Andrew (2006): *Introduction to Project Finance*, Butterworth-Heinemann, Imprint of Elsevier, Oxford, United Kingdom, p. 139.

Financial crisis like the 2000 *dot-com crash*, the *bubble period* of 2004-2005, the 2007-2009 *subprime crises* and the 2010-2013 *European sovereign debt crisis* were all triggered by bubble collapses resulting in a huge mismatch between asset prices and their underlying fundamentals and misallocation of resources. Via latent financial linkages such signals of price bubbles arising in one economic sector or a geographical region do often influence the rest of the economic system.[40]

Despite obvious differences of countries and cities within their national boarders, there is a common trend for demand of space observable. Thus, there is a future need for real estate development assumed.

The current social, economic, political, and environmental forces are drivers for temporarily reflecting the respective real estate development forms. The "GFC", i.e. the *Global Financial Crisis,* and the related economic downturn led to a radical change in the property investment in urban development by putting for instance the developers´ new economic climate and liquidity to an overall new spotlight. Also, there seems to be an unparalleled real estate boom to be shared by developing countries and cities, but reflecting on the other hand the need for alternative models for development in developed countries in case of austerity and beyond.

All the above is requesting for a better understanding of the implications of the real estate development projects.[41]

To mitigate the effects of recession in the real estate construction sector, an integrated analysis and rational decision-making are prerequisites to be considered at micro-, macro- and meso-levels. Thereby *crisis management* comprising economic, regulatory and/or legal, but also political decisions plays an important role.[42]

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[40] c.f. Joyeux Roselyne & Milunovich George (2015): Speculative bubbles, financial crisis and convergence in global real estate investment trusts. In: *Applied Economics*, 47:27, 2878-2898, DOI: 10.1080/0003684.2015.1011310, p. 2878.
http://www.tandfonline.com/loi/raec20 - retrieved as of Sept 25, 2016

[41] c.f. Heurkens Erwin & Squires Graham (2015): Methods and models for international comparative approaches to real estate development. In: *Land Use Policy* 50 (2016) 573-581, p. 573.
http://www.elsvier.com/locate/landusepol - retrieved as of Sept 25, 2016

[42] c.f. Kaklauskas Arturas (2010): Crisis management in construction and real estate: Conceptual modelling at the micro-, meso- and macro-levels. In: *Land Use Policy* 28 (2011) 280-293, p. 280.
http://www.elsvier.com/locate/landusepol - retrieved as of Sept 25, 2016

3.2 Real Estate Project Finance Risks

The previous chapters have already shown how complex the real estate development process per se is constituted, how extensive the range of potentially related real estate financing risk is and hence, how important an overall due diligence by a Bank´s Credit Risk Manager is – especially in **emerging markets**, where the aggregate risk level for the financing bank is considered to be much higher than compared to those in more developed countries. Their economic importance and significance reflect the continuous need for improvement of the following drivers of the emerging markets´ elevated risk profile: stronger currencies, developing legal systems, economic growth, strengthening financial systems as well as enforcing international integration. Based on these facts, emerging markets do imply at the same time higher risks than development markets.[43]

In order to increase a Bank´s recovery out of a loan provided for real estate projects, a Credit Risk Manager has to be aware of all specifics assigned to potential real estate project risks in order to be able to identify, recognize, assess and mitigate them – both on ***country level*** as well as ***project-related level***.

In the very beginning of the analysis of a real estate project a Credit Risk Manager is supposed to investigate the ***fundamental project viability*** per se out of which the following related risks could arise: (i) intrinsically weak market theory, (ii) market theory does not support the project, (iii) sensitivity of project return to market theory errors.

In order to identify and mitigate those risks, the Credit Risk Manager will review the market theory basis:

- nature of real estate project;
- level of project´s target IRR[44] and time frame;
- requirement of change in regulatory conditions to meet target IRR;
- localization of target demand for project, i.e. in home country or abroad;
- competitive factors of the project;
- ability of competition of the target project and/or

[43] c.f. Bifani Darin (2012), p. xxxviii.
[44] Internal Rate of Return

- nature and level of key risks to the market theory.

Thus, the underlying analysis approach by a Credit Risk Manager refers to the break-down of the applied real estate project into a market hypothesis followed by testing the basis for the analysis.[45]

In that respect, the related process for any project financing to be considered by the Credit Risk Manager does usually imply to focus on (i) risk identification, (ii) risk analysis, (iii) risk transfer and allocation of those risks to suitable actors and (iv) residual risk management.[46]

3.2.1 Market Risks

Project related market risks include (i) *local political factors*, (ii) *local social risks*, (iii) *local legal and regulatory factors* and (iv) *local market factors* in terms of demand, supply and competition. Thereby, their impacts have to be identified by a Credit Risk Manager not only on project-related, but also on country level.

3.2.1.1 Local Political Factors

For the Credit Risk Manager it is challenging to identify political risk, i.e. the current local political environment, potential change to local political environment and potential acts of political risk against foreign investor. The analyst heavily relies on multiple sources of external information in order to ensure to be *up-to-date* at any time. The focus shall therefore be on

- following political developments in the media if reliable,
- maintenance of relationship with professional advisors thereby soliciting their opinion serving as a kind of early warning signal,
- maintenance of relationship with relevant local political entities and
- track-record of notable changes in governmental officials and/or bodies.[47]

Many forms of various political risks are observable implying, for instance, a government´s instability further leading to a negative impact on the SPV.

[45] c.f. Bifani Darin (2012), p. 210f.
[46] c.f. Gatti Stefano (2013), p. 13.
[47] c.f. Bifani Darin (2012), p. 211-113.

Political risk types would comprise (i) investment risks, (ii) change-in-law risks and (iii) quasi-political risks.[48]

3.2.1.2 Local Social Risks

Compared to analysing political risk, social risks´ analysis is deemed to be a bit easier, however, not to a large extent.

To identify and address related social risk, a Credit Risk Manager will focus on:

- existing social risk regarding level of poverty, unemployment, income inequality, health care, violence, social protests;
- political change to levels of social risk implying increase in unemployment rate, close of major business in community or exposition to such, incentives provided by local policies to enforce the presence of business/individuals in the community and
- potential of social risks impacting investor´s business like required removal of persons from their land due to an envisaged project, evidence of attacks on any business/properties of foreign investors or real estate companies as well as related observable protests.

As social risks are basically out of the financing party´s control, they are very difficult to manage. In any case, a Bank´s Credit Risk Manager needs to ensure that under no circumstances people will be threatened or violently forced to move and act in contravention of their rights.[49]

3.2.1.3 Local Legal and Regulatory Risks

Local legal and regulatory risks are subject to a case-by-case analysis by the Credit Risk Manager when referring to related risks like:

- unclear or randomly applied laws, regulations and process addressing zoning and zoning variances;
- non-existent or inconsistently applied key real estate substantive rights (e.g. with respect to ownership, title transfer and landlord/tenant relationships);
- no clear definition or difficulties in enforcement of laws defining lender´s rights or security interests;
- generally vague or contradictory wording of law, rapid change of laws and regulations, arbitrarily enforced laws.

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[48] c.f. Gatti Stefano (2013), p. 55.
[49] c.f. Bifani Darin (2012), p. 213-115.

The latter is mainly true for emerging countries in terms of very high risk level and thus being more challenging to be addressed by a Credit Risk Manager compared to projects being located in more developed countries.

In any case, a Bank´s Credit Risk Manager´s due diligence will focus on the following assessments:

- local development risks in terms of development law authorities, variances and exceptions, zoning laws applicable to the project;
- local construction risk related to authority and potential corruption issues;
- local taxation risk in the light of tax authority, application of tax laws, corruption and specific tax risks regarding a foreign investor;
- local judicial risk in terms of structure and independence, procedure and functioning as well as corruption.
- Sources of information shall be (i) local regulatory agencies, (ii) local law companies, (iii) newspapers and (iv) local experts. [50]

Inefficiencies in public administration or highly complex bureaucratic procedures and processes do typically end up in delays, thus increasing regulatory risks.

Regarding legal risks, it is mainly up to the Bank´s lawyers to identify and manage those risks. Their main related task will be to analyse the commercial law of the host country in terms of contract enforceability in case some issues arise during the construction or operational phase.[51]

Hence, a main condition for managing local legal and regulatory risks requires a perfect understanding of the relevant legal and regulatory framework in the host country and its impact on the project throughout its lifecycle by considering external local Legal Counsels to have an active voice when it comes to legal changes.[52]

3.2.1.4 Local Market Factors

Local market factors in terms of *demand, supply* and *competition* need to be investigated by a Bank´s Credit Risk Manager as well.

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[50] c.f. Bifani Darin (2012), p. 215-119.
[51] c.f. Gatti Stefano (2013), p. 55f.
[52] c.f. Bifani Darin (2012), p. 215-119.

It is very common to use so-called *Offtake Agreements* on a *take-or-pay* basis as structuring tool for project finance transactions in case the SPV sells goods and services to a single counterparty. Such agreements ensure a reduced volatility of future cashflows from operations in the long-run which do constitute the Bank´s assessment basis in terms of sustainability. The SPV commits to deliver a certain volume of goods and services and the offtaker commits to pay a predefined price for the goods and services provided by the SPV.[53]

Deriving the level of potential **demand** from vacancy rates in e.g. office properties and/or rent price patterns will provide a very limited and short-term picture of the market. Thus, when providing a long-term loan, the Credit Risk Manager has to take a more sophisticated approach for demand projection like running e.g. a *regression analysis*. However, this could lead to numerous types of errors.

Forecasting **supply** is much easier compared to forecasting demand as the development of big real estate properties do usually take quite long. One could also focus on the number of construction permits issued when forecasting supply. Projections for longer term supply strongly depend on the area/location in which the real estate development is supposed to be carried out. For instance, when looking at emerging markets with rapid growth there can be a broad range of future supply options.

Some starting points for supply forecasts comprise:

- level of demand,
- kind of process for new construction approvals,
- zoning law and tax incentives provided by government policy for real estate development,
- potential of infrastructure supporting real estate developments and
- level of land being available for construction in the specific markets.

Another important local market factor to be addressed is **competition** and the number of competitors in the subject market. Due diligence tasks shall include an assessment of the competitor´s general target markets, business strategy and strategy in terms of execution ability.

The following factors related to the *level of competing projects* need to be investigated by a Bank´s Credit Risk Manager as well:

[53] c.f. Gatti Stefano (2013), p. 64.

- tenant mix,
- certification as “green” building,
- management quality,
- construction quality,
- age,
- layout,
- amenities,
- facilities and/or services in surroundings,
- location and access.[54]

3.2.2 Construction Risk

The *Construction* or *Development phase* might be the most important contributor of the real estate development process and does generally imply various risks which will have to be taken into consideration by a Credit Risk Manager.

Construction work can/could be carried out either by (1) a *General Contractor* and/or (ii) *Construction Subcontractors.* The General Contractor´s duties refer to the provision of material and labour required for the project construction and is usually authorized to carry out the main construction works. Within the segment of Construction Subcontractors one distinguishes between various subcontractors depending on the work assigned, i.e. subcontractors responsible for instance for the site preparation, foundation, framing, roofing, electricity, heating, ventilation and air conditioning, plumbing, interior construction, flooring, landscaping as well as external and complementary works. [55]

In the best case, i.e. lowest risk, *Construction* or *Development Risk* will be transferred to a general contractor, who guarantees the SPV at some pre-agreed fee via a so-called *turnkey agreement or engineering, procurement and construction (“EPC”) contract* (i) the completion date, (ii) construction work costs, (iii) plant performance, and (iv) a warranty period of ranging typically between 12 and 24 months after project completion.[56]

[54] c.f. Bifani Darin (2012), p. 219-223.
[55] c.f. Bifani Darin (2012), p. 5-19.
[56] c.f. Gatti Stefano (2013), p. 58.

Due to a very broad set of related development risks for real estate projects, a case-by-case analysis is vital. The following check-list shall provide a guideline on the various risks to be investigated:

(i) Regulatory, Licensing and Permit Risk regarding land acquisition and construction approvals:

- requirements to get construction permission,
- existence of land title issues,
- availability of land title insurance,
- required steps for land acquisition,
- required steps for land ownership rights registration,
- required steps for obtaining zoning approvals/changes to zoning approvals.

(ii) Regulatory, Licensing and Permit Risk regarding construction process:

- parties involved in construction process,
- typical construction models (contractor, contractor/sub-contractor etc.),
- typical bidding process and rules for tender,
- requirement for the construction parties´ licences,
- availability of standard guarantees and/or bond ensuring construction completion,
- standard clauses to protect against construction-related shortcomings and defects,
- process of contracting sub-contractors,
- steps to be used to project and control construction costs,
- existence of any labour law issues regarding contractor and sub-contractors,
- existence of environmental issues related to construction process,
- availability of any dispute resolution procedures.

All that requires a perfect understanding of the relevant legal and regulatory framework in the host country and its impact on project completion.[57]
Basically, to which extent the Bank will be willing to accept development risk depends also on the reputation and track record of the contractor as well as the state of art of technology.[58]

[57] c.f. Bifani Darin (2012), p. 223f.
[58] c.f. Gatti Stefano (2013), p. 47.

3.2.3 Operational Risks

Depending on the kind of business to be carried out, operational risks arising from real estate business can be related in various forms to (i) fundamental organisation issues, (ii) business plan execution, (iii) ongoing operational matters, and (iv) selected other issues.

To identify all those potential operational risks, a Credit Risk Manager needs to have an overall and complete understanding of those operational risks in order to set out mitigations, which will be provided by a clear set of operational rules and procedures mitigating the identified key operational elements.[59]

Mitigations for operating risks do suggest the use of (i) *fixed-price contracts* or (ii) *pass-through contract*s.[60]

3.2.4 Business Strategic Risks

Many post-funding strategic risks can arise from a business in the operational stage, which are linked to the following examples of decision-making:

- At which level sale and rent prices should be fixed?
- Initiation of eviction proceedings against non-payment of tenants?
- Provision of rent concessions under certain market conditions?
- Engagement of 3rd party companies for goal achievements of business plan?

Most of these decisions are usually not included in the materials to be submitted to the Bank for review. However, as such business strategic decisions can heavily impact the value of the underlying assets they have to be taken into consideration in the financing concept of the bank as well. It is therefore the Credit Risk Manager´s task to ensure that these business strategic decisions are subject to investor´s oversight at committee or shareholder level - at least to some extent. To address market asymmetries in terms of information the Credit Risk Manager has to recommend the establishment of a framework, where strategic issues shall be placed to ensure that all involved parties have the same knowledge at any point in time, especially when the investment starts falling short.[61]

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[59] c.f. Bifani Darin (2012), p. 224f.
[60] c.f. Gatti Stefano (2013), p. 61.
[61] c.f. Bifani Darin (2012), p. 225f.

3.2.5 Investment and Financing Exit Risk

Non-contentious and *contentious situations* are usually part of an investment and financing exit process. Both seek to maximize the probability of meeting the planned investment goal. A clear understanding of equity division as well as rules and limitations for loan repayment is crucial when non-contentious situations are faced. Compared to non-contentious situations, contentious situations are typically much more difficult to handle requiring the establishment of clear exit procedures to be deemed by local Legal Counsel to have the best probability in terms of enforcement.

The following strategies can help to address and manage contentious situations especially when investments in emerging markets have been done:

- Exit options with underlying calculations to be clearly documented in the loan contract,
- Exit options that follow the project and local party economic realities,
- Exit options to be consistent with local business practice,
- Exit options to be built after return goal has been met or in case of highest chances to meet the goal for return,
- Constant evaluation of the return/risk relationships.[62]

3.2.6 Finance Structure Risks

Key finance structuring principals in terms of *simplicity, legality, tax efficiency* as well as *cost-effectiveness* are very crucial to be considered by a Credit Risk Manager when it comes to structuring the financing concept of a real estate development project. Such structures represent cost and benefit trade-offs depending on certain market conditions.

All the peculiarities related to finance structure risks in terms of *public and private capital market vehicles* as well as *direct investment structures* will be investigated in detail under section 5 on the example of the emerging market Russia.

[62] c.f. Bifani Darin (2012), p. 226f.

3.2.6.1 Structuring Complexity

Regarding the fundamental structuring goals the *economic terms of an investment* have firstly to be identified: *"(i) If capital is invested in a real estate project in form of a **loan**, the economics can be understood as the provision of capital in single or multiple tranches and the receipt of capital over time in the form of interest and principal repayments. (ii) If capital is invested in a project in the form of a **share investment**, the economics can be understood as the price of the equity purchase, dividends that are paid to the investor over the course of the investment and the proceeds that the investor receives when an investor exits from the investment."*[63]

Timing regarding capital outflows and various project-related expenditures to be made as well as timing regarding the revenues to be received does refer also to crucial factors to be considered by a Bank´s Credit Risk Manager within the financial model. Thereby the financial modelling assumptions to be typically provided by the relationship party should be ensured in terms of liability by a representation letter and/or guarantee to be provided by the relationship party.
Also business decisions in terms of timing and nature do constitute vital factors to be considered within structuring the financing concept as they can have a significant impact on investment return. Thus, the loan documentation needs to include a clause providing the Credit Risk Manager an oversight also with regards to operational decisions, i.e. not only with regards to decisions potentially affecting the investor´s legal rights.[64]

3.2.6.2 Tax Efficiency

The countries´ various tax laws, which are very crucial to be investigated based on the depreciation policy of the property, allow for a certain flexibility regarding the tenor of the amortization period and accelerated amount of amortization.[65]
Especially in emerging markets the probability of gaining tax benefits is subject to huge uncertainties due to (i) potential existence of double taxation treaties, (ii)

[63] Bifani Darin (2012), p. 180.
[64] c.f. Bifani Darin (2012), p. 180-182.
[65] c.f. Gatti Stefano (2013), p. 135.

possibly unclear and uncertain regulations and tax law, (iii) inconsistent application of tax law and regulations and (iv) the probability of tax benefit withdrawal by a specific locality.

Thus, an appropriate tax management strategy under consideration of tax counsel´s advice will focus on

- appropriate forecast of the tax benefits to be received,
- increase of probability of getting tax benefits and
- quick realization of tax benefits.[66]

3.2.6.3 Legality

Legality per se requires compliance with applicable laws and regulations and having ensured a minimum level of *enforcement risk* to be existent only.
To accomplish that, a Bank´s Credit Risk Manager usually asks for external Legal Opinions which shall serve in parallel as mitigations:

- External Legal Opinion on Enforcement Risk of the underlying investment structure including collateralization applied.
- External Legal Opinion confirming that the structure is in compliance with applicable laws and regulations.
- External Legal Opinion advising on any actions to be required/abolished by the investor in order not to violate laws and regulations during the investment period.[67]

3.2.7 Relationship Risks

3.2.7.1 Actor Risks

Actor Risk can be defined as *"a function of the amount of time an actor is involved in particular project and the degree to which performance failures or wrongful acts by the actor will harm the investment object."*[68]

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[66] c.f. Bifani Darin (2012), p. 182f.
[67] c.f. Gatti Stefano (2013), p. 86ff.
[68] Bifani Darin (2012), p. 19.

Not all actors are permanently involved in the entire real estate development process. The timing of entry and exit could differ; also the importance of the respective roles could vary. Besides, skills, motivations and single perspectives of the market actors could differ. The availability of the respective real estate market actors is a crucial point to be considered as well. All in all, these facts could have strong implications on the nature of risk.

To address such Actor Risks a prudent Credit Risk Manager will focus on the following in terms of mitigation strategies: (i) specification of the scope of work and timing for advisors, (ii) creation of a team-, interactive- and real time-based approach in terms of a workflow model, and (iii) structured leverage of the advisors´ basic understanding of the market environment in terms of conditions and actors.[69]

3.2.7.2 KYC Know your customer Risks

The *Know your customer* (KYC) principle is the basis of managing finance relationship risk. It is worth to mention that KYC check is not a one-time process, but a process which needs to be undertaken on a regular basis and/or ad-hoc if required.

Roughly, a KYC analysis can be broken down into three main fields of analysis:

(i) How long does the relationship between the party and the Bank last? Is there a positive track record of past transactions?

(ii) What is the nature of the transaction and the party´s role in the transaction?

(iii) Are there any red flags leading to significant KYC concerns like

- entity is located in suspect country,
- individual is coming from suspect country,
- newly established relationship party in offshore-jurisdictions with no track record in terms of operations,
- it is the first time for the relationship party to conduct investment in the respective business area,

[69] c.f. Bifani Darin (2012), p. 5-19.

- individual and/or entity are subject to litigation,
- individual and/or entity are subject to bankruptcy proceedings,
- individual or person is unable to provide full set of answers and/or information required, and
- non-availability of reliable sources confirming the party´s business practices and reputation.

A crucial mitigation strategy implies to have a contractual documentation in place allowing unwinding a contractual obligation in an orderly way in case developments could expose the financing party to personal liability.

In that respect the engagement of an appropriate Legal Counsel in the respective jurisdiction where the financing shall be carried out is crucial to make sure that all issues related to potential legal liability are identified and managed. A respective legal due diligence will focus on due diligence areas to identify issues like (i) formation issues, (ii) organisational structure, (iii) organisational proceedings, (iv) policies and procedures, (v) employee issues, (vi) regulatory approvals, (vii) material and insurance agreements, (viii) liabilities, (ix) regulatory actions as well as (x) litigation.[70]

3.2.7.3 "Bad Acts" Risk

Basically, *Bad Acts* Risk can be controlled and mitigated by monitoring the *organisational, operational* and *legal* actions.
Depending on the investment structure, risks at organisational level can be controlled by focusing on (1) shareholders´ actions, (ii) Board of Director´s actions as well as (iii) actions taken by individuals (internal and/or external) entitled by the Board of Directors via an assigned *Power of Attorney*.

Mitigation strategies by a Bank´s Credit Risk Manager with respect to controlling actions on ***organisational level*** could be:

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[70] c.f. Bifani Darin (2012), p. 196-206.

- Inclusion of *supermajority* provisions in the shareholder agreements stipulating that specific decision-making is possible only subject to unanimous vote in case of non-majority position of the shareholder.
- Inclusion of *timely submission* clause in the shareholder agreement to ensure that the relationship and financing parties together with their advisors have enough time to review the documentation (e.g. in case the key documents require translation in terms of language).
- Defining conditional seats in the Board of Directors to exercise control over the local partner.
- Submission of copies of all signed and valid *Power of Attorneys* subject to legal investigation.
- *Power of Attorney* to be issued for specific purpose and to be provided only for exceptional cases.

To address potential *Bad Acts* Risk on ***operational level,*** the following mitigation strategies should be considered:

- Issuance of respective Risk Management and Accounting policies and procedures.
- Formation of different types of committees e.g. for budget formation in order to get views from other departments, to create synergies between relationship and financing parties and to increase the probability of risk identification at some very early stages.
- Requirement for the relationship and financing party representatives´ signature for envisaged financial transactions, various legal transactions (e.g. contract execution) as well as pre-agreed corporate actions (e.g. business planning).

Potential risks arising from ***contractual legal means*** can be mitigated by

- contractual provisions in terms of *negative or positive covenants* allowing or not allowing specific actions by the relationship parties.[71]

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[71] c.f. Bifani Darin (2012), p. 206-209.

4 Bank´s Credit Risk Management & Analysis Challenges

"Real estate management [...] refers to the process of resolving all real-estate related topics and issues from the initiation until the realization and recovery of a real estate property."[72]

Analysing BRIC real estate finance risk is fairly tricky as there are many risk factors to be considered by a Bank´s Credit Risk Manager as pointed out in detail in chapter 3. Most of these risk factors cannot be directly controlled in terms of forecasts by a Bank´s Credit Risk Manager. Another obstacle could be the non-availability or non-reliability of market data serving as main source for analysis. In that respect it is crucial to mention that even in case data are available, market factors and thus risks could change so quickly making the data again less reliable, mainly when it is about forecasting them implying to have *reliable* information at hands. Main risk factors to be derived from emerging markets do refer to economic and legal development, demographics and the degree of corruption. These factors could strongly differ when comparing them to more developed countries. Thus, it is a Credit Risk Manager´s task to understand these markets to the highly possible extent. It should be also considered that the advisory relationship (availability and quality of legal counsel, consultants etc.) is usually more restricted in emerging markets compared to the financing party´s home country. The main reasons are potential language and/or cultural barriers which make it very challenging for a Bank´s Risk Manager. In that respect Credit Risk Management strategies cannot be entirely free of mistakes or errors.

Having identified risk factors per se is not sufficient. Emerging market risks are basically very difficult to manage as economic, political and social risks are usually out of the financing party´s direct control. The only thing a Credit Risk Manager can do in order to mitigate these risks is to have a strong focus on the timing of the financing decision and to structure the transaction in a way that allows for a fast

[72] Gondring Hanspeter & Wagner Thomas (2015): *Real Estate Asset Management*, 2. Edition, Franz Vahlen Munich Publication, Munich, Germany, p. 6.

financing entry, but also **exit** by monetizing both, positive and negative market scenarios. Overall, a common Risk Management strategy has to address country risks by (i) placement of investment vehicles offshore, (ii) expansive security arrangements and enhancements and (iii) forced exits (through e.g. put options). Theoretically, all these actions could be seen as mitigation strategies by reducing risk from a Credit Risk Manager´s point of view. Practically, such actions might be very difficult to implement or execute as *enforcement risk* in emerging markets is quite high requiring also a huge amount of timing and costs.[73]

4.1 Credit Risk Management

In a wide sense, Risk Management implies *"the art of making decisions in an uncertain world. Such decisions involve a weighting of risks and rewards, a choice between doing the safe thing and taking a risk."*[74]

(i) Risk attitude strongly contributes to such decision, thereby justifying one main pillar of Risk Management, followed by two others, namely (ii) the generation of good alternatives and (iii) the assessment of probabilities.
Having a framework in place to express risk preferences is essential in order to avoid that decision-making is not solely a result from *seat of the pants*, *gut feel* or *nose* and to avoid potential problems in decision-making in case intuitive choices are contradicting each other.[75]

Apart from a Credit Risk Manager´s most challenging task to assess real estate development projects, a Credit Risk Manager´s "To-Do-List" addresses in a nutshell the following bank-relevant risk topics:

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[73] c.f. Bifani Darin (2012), p. xlvi.
[74] Koenig David R. (2004), edited by Alexander Carol/Sheedy Elizabeth: Finance Theory, Financial Instruments and Markets. In: *The Professional Risk Managers' Handbook*, Volume I, PRMIA Publications, Wilmington, DE, United States of America, p. 19.
[75] c.f. Koenig David R. (2004), Volume I, p. 19.

A Credit Risk Manager´s To-Do-List

A. Review Strategic Credit Positions

- Any amendments to largest exposures?
- Any changes in the counterparty ratings (internal and external ones)?
- Approval competences for the subject loan?

B. Credit Limits

- Any limits exceeded? Any limits to be reviewed?

C. Credit Exposure

- All exposure covered?
- All exposure correctly mapped? Any "wrong-way" positions?

D. Credit Reporting

- All significant risks considered within regular credit risk report?
- Report distributed to all relevant addressees within the Bank?
- Any significant risks identified being subject to Board level discussion?

E. Stress and Scenario Analysis

- Anything not covered by current set of scenarios being in place?
- Any matters arising from stress and scenario analysis at portfolio or global level?

F. Provisions

- Any past or expected amendments in general and specific loss provisions?

G. Documentation

- Overall documentation for the whole Bank´s portfolio in place?
- Break clauses, rating triggers, general undertakings etc. according to applicable market standards fully considered?

H. Credit Protection

- Credit protection understood, valid, utilized?
- Any further option to investigate credit protection?

Fig. 10: Credit Risk Manager´s To-Do-List[76]

[76] c.f. Koenig David R. (2004), edited by Alexander Carol/Sheedy Elizabeth: Risk Management Practices. In: The Professional Risk Managers' Handbook, Volume III, PRMIA Publications, Wilmington, DE, United States of America, p. 195.

All in all, a Credit Risk Manager has to understand the markets, the mechanisms and the instruments traded. Due to a permanent change in regulatory, legal and market requirements, Credit Risk Management implies a continuing learning process.[77]

4.2 The Importance of market-compliant Project and Financing Concepts

For a Bank´s Credit Risk Manager it is very crucial to firstly understand the rationale of the real estate development process per se before starting analysing a real estate development project. In any case an overall *due diligence*, *identification of all the related risks*, determination of the *size*, i.e. the financing amount provided by the Bank, as well as the *projection of the project cashflows* do basically refer to the main tasks of a Credit Risk Manager. Only after having conducted all of that very carefully, a Credit Risk Manager can opine on the market-compliance of a project. The latter constitutes a pre-requisite for the financing concept ensuring in parallel a recovery rate for the Bank to the most possible extent in case of financial distress and/or default of a project.[78]

4.2.1 Real Estate Development Process

"We used to call them out town founders and we honoured them by erecting their statues in our own squares. Today we just call them developers."[79]

As a financing party could enter the real estate development project before, during or after project development and realisation, it is crucial to understand the different stages, which do imply related risks to be considered.
It is crucial to mention that construction risk in more developed countries could be mitigated by a combination of an overall *due diligence* and *contractually agreed representation and warranties*. On the contrary, in emerging markets with weak

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[77] c.f. Koenig David R. (2004), edited by Alexander Carol/Sheedy Elizabeth (2006): Mathematical Foundations of Risk Measurement. In: The Professional Risk Managers' Handbook, Volume II, PRMIA Publications, Wilmington, DE, United States of America, p. 11-12.
[78] Author´s own.
[79] Hendee Brown Peter (2015): *How Real Estate Developers think: Design, Profits, and Community*, 1. Edition, University of Pennsylvania Press, Philadelphia, United States of America, p.1.

construction laws and thus high enforcement risk such mitigation strategy might fail. It is up to the Credit Risk Manager to strongly consider the above when analysing real estate development projects in emerging markets.

Theoretically, the *Real Estate Development Process* can be seen as a linear process implying the following stages: (i) idea formation, (ii) funding, (iii) land acquisition, (iv) design, (v) construction, (vi) operational phase and (vii) exit illustrated by the following graph:

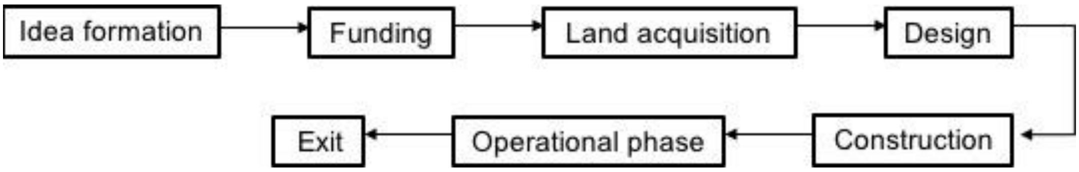

Fig. 11: Real Estate Development Process Model[80]

Practically, the *Real Estate Development Process* is representing rather a "loop" than some linear process implying that the involvement of certain parties at some later stages influence steps undertaken at the beginning of the development process.[81]

4.2.1.1 Idea Viability

Formulating an idea of an investor and confirming its fundamental *viability* in terms of market, space, technical, area, construction, and funding, regulatory, operational and economic components refers to the first step of the real estate development process.

When confirming the basic viability of an investor´s project idea a Credit Risk Manager will basically ask the following three questions:

- Can the subject project be realized?
- Can the project developer realize the project?
- Will the project developer be able to be profitable?[82]

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[80] c.f. Bifani Darin (2012), p. 33.
[81] c.f. Bifani Darin (2012), p. 32.
[82] c.f. Bifani Darin (2012), p. 34.

Thereby a generalized description of all those project related risks is not meaningful. Each project has to be considered to be specific in terms of analysis.[83]

4.2.1.2 Funding and Financing

The next step of the real estate development process refers to securing the required funding. Thereby a Credit Risk Manager will look at (i) the developer´s funding preferences, (ii) costs, i.e. availability of market capital, and (iii) the developer´s creditworthiness, i.e. its financial standing.

As a developer´s main goal is always to maximize the profit by securing development funds on a very cheap level, the funds required for a specific project basically will be most likely delivered by a combination of *equity* (own funds) and *debt* (3rd party funds e.g. provided by a Bank). To argue on an appropriate split regarding the ratio of equity to debt is challenging, as both the financing and relationship party might seek for different levels. In most cases the Bank will ask for a significant portion of equity keeping down the leverage, i.e. the debt proportion of a loan, whereas an investor might seek for high leverage levels to free up equity e.g. for the investment of other projects. Also, the interest on debt is usually tax deductible. On the Bank´s side, the lending policies could change in accordance with the current risk strategy, bank reserve ratio requirements and/or market conditions.

A Bank´s Credit Risk Manager will also focus on the *creditworthiness of the developer* as well as on the *project strength*. In case of weak financial standing of the sponsor and/or the project implying a high risk level, a Credit Risk Manager could recommend to decrease the loan size by asking for a larger part of equity contribution, increase interest rates and/or decrease the tenor of the loan – or the Credit Risk Manager could not recommend financing for the subject project at all.[84]

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[83] Gatti Stefano (2013): *Project Finance in Theory and Practice*, 2. Edition, Academic Press, Imprint of Elsevier, Oxford, United Kingdom, p. 45.
[84] c.f. Bifani Darin (2012), p. 34-37.

In any case, to which extent the Bank will be willing to accept construction risk depends also on the reputation and track record of the contractor as well as the state of art of technology.[85]

Capital availability is also a very important factor to be considered by the Credit Risk Manager as significant liquidity shortages do often lead to an increase of capital costs bringing the project to a level where no more economic viability is given. Credit market liquidity shortages can be caused by restrictive bank lending policies, increased reserve ratios, identified market risks and/or increases of the central banks´ reference lending rates.

After having decided on the capital structure for an envisaged project, an investor will look for *funding options*. Typically, there are the following funding options available:

- funds for land acquisition,
- funds for project construction/development and
- long-term credit to be repaid out of the cashflows of the completed property.

As soon as the developer has formulated a *fund-raising strategy,* he will approach potential lenders to provide financing for the envisaged project.
A crucial factor to be mentioned here refers to the timing of such fund-raising process. In case the developer or capital provider is already known to the Bank, i.e. he has a long-term relationship with a positive track record, such loan application process could be handled faster compared to the application for a loan to be provided to a developer not already known. For a well-known developer a limited documentation could be sufficient. For an unknown one an extensive due diligence on behalf of the lenders is in any case a crucial prerequisite. All in all, project finance with a complicated financing structure will result in an in-depth loan due diligence and an approval process that could take even several months.
When searching for funds a developer will usually reach out for approaching many different capital providers. That is caused by the fact that lenders could have

[85] c.f. Gatti Stefano (2013), p. 47.

different lending policies. Overall, the developer´s main goal is always to keep the development costs at the lowest possible level. Thus, the developer will negotiate the main terms and conditions for the envisaged project, including the following minimum terms regarding

- interest rate,
- default interest rate,
- different kind of fees to be paid by the borrower (e.g. *arrangement fee*),
- permission of pre-payments,
- collateral package.[86]

An example of a **typical term sheet** being usually issued by the Bank for providing financing for a real estate development project is recorded in Appendix I.
After having agreed on the main terms and conditions, the challenges for the Bank´s Credit Risk Management start.
Chapter 3 of the master thesis addressed already all the real estate development related risks to be identified, weighted in terms of risk degree, managed and mitigated by the Credit Risk Manager. Only after having done an overall and extensive due diligence the Credit Risk Manager will be able to end up with financing recommendations implying related conditions for mitigation purposes. Based on the so-called *Credit Risk Statement* serving as a second opinion to the Transactions Manager´s opinion for the Bank´s decision-maker, usually the so-called *Credit Committee*, the envisaged real estate project is subject to detailed discussion by assessing all the *strengths* and *weaknesses, opportunities* and *threats*, i.e. by a so-called "SWOT" approach.

After having a positive Credit Committee approval in place, the Bank will work together with the client on the so-called *documentation. Funding closing* implies to have the loan documentation finalized, i.e. signed by both parties. Such legal due diligence is usually carried out by the Bank´s internal Legal Department, external Legal Counsels if applicable, Business, Structuring and Credit Risk Management

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[86] c.f. Bifani Darin (2012), p. 34-37.

Lines. The degree of involvement of the mentioned departments could depend on the complexity of the financing provided or on the amount of lenders involved.[87]

Fund disbursement will be done in accordance to fulfilment of so-called *conditions precedents* to be fulfilled by the client *before* disbursement including, but not limited to

- duly signed client´s statement in terms of *use of funds,*
- execution of all credit and collateral documentation,
- legal opinion regarding enforcement risk,
- completion of legal and financial due diligence,
- etc.

A full set of proposed conditions precedents typically agreed for real estate development transactions is also presented within the term sheet being recorded in Appendix I.

In case the client is not able to fulfil all agreed conditions precedent, the Credit Risk Management and Credit Committee can recommend and approve, respectively, to shift these conditions precedent under *conditions subsequent*, i.e. to be fulfilled after disbursement. Crucial to mention at this point is that such conditions precedent are not subject to any *materiality*, i.e. very essential to be fulfilled before disbursement.[88]

4.2.1.3 Land Acquisition

Land Acquisition might be also subject to financing provided by a Bank. Thereby a Credit Risk Manager will look at the (i) land due diligence, (ii) land valuation and (iii) land transfer.

[87] Author´s own.
[88] c.f. Bifani Darin (2012), p. 34-37.

The following key elements are part of a typical *Land Due Diligence* to be conducted by a Credit Risk Manager:

- Subject to litigation?
- Any other liens on the property?
- Encumbrances with respect to the land by 3rd party?
- Any other land use rights by 3rd party?
- Application of zoning rules and regulations?
- Subject to natural disasters (e.g. earthquakes, floods etc.)?
- Environmental damage suffered potentially exposing the purchaser of the land to legal liability?
- Nature of physical and natural structure? Ability to remove? Level of removement costs?
- Suitable for carrying out the project in terms of space and location?
- Area surroundings possibly restricting project realization?
- Actual or planned development in the area surrounding affecting the neighbourhood, land access routes, land values etc.?
- Existence of structural defects of the land?

As a next step the Bank´s Credit Risk Manager will focus on the *Land Valuation.* Such valuation for large real estate projects is usually required to be undertaken by an external and thus independent appraiser by issuing a formal land value appraisal or land valuation report subject to plausibility check by a Bank´s Credit Risk Manager.

Common land value approaches do refer to approaches like (i) *comparable sale method,* (ii) *allocation method,* (iii) *abstraction method*, (iv) *capitalization of ground land* and (v) *land residual procedure.*[89]

With respect to ***Land Transfer*** the Credit Risk Manager will investigate the current *ownership title* of the respective land, i.e. the registration of the title transfer and thus registration of the ownership rights, and will also review the legal perfection of the lender´s security interests.[90]

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[89] c.f. Bifani Darin (2012), p. 38f.
[90] c.f. Bifani Darin (2012), p. 39.

4.2.1.4 Project Design Phase

During the *Project Design* phase, i.e. by converting the project concept into a form being appropriate for construction purposes, many risks could arise about which a Bank´s Credit Risk Manager should be aware of:

- design does not address the target market;
- exceeded design costs in relation to overall project cost budget;
- exposition of the building to external risks caused by design matters;
- creation or contribution to structural defects;
- non-compliance of regulations to be applied with.[91]

4.2.1.5 Construction Phase

The so-called *pre-completion* or *construction stage* driving the construction start of the respective real estate properties implies a high concentration of industrial risks. Therefore, these risks emerging at the very beginning of the project, i.e. before the project starts to generate positive cashflows, are subject to a very careful and extensive analysis by the Credit Risk Manager.[92]

Many different types of construction models are visible on the market. Nevertheless, the *general* process can be summarized as follows: (i) seeking for construction bids, (ii) land preparation for construction, (iii) site grading and soil stabilisation, (iv) excavation and structural work, (v) building construction/errection, (vi) building completion, (vii) inspection and (viii) obtaining final or temporary occupancy certificate.

In a nutshell, a Credit Risk Manager has to focus on the following construction risks:

- project delay,
- cost overruns,
- structural defects/shortcomings of the building,
- safety risk and risks to the environment as well as

[91] c.f. Bifani Darin (2012), p. 40.
[92] Gatti Stefano (2013), p. 45.

- approval risk regarding construction.[93]

One of the main risks in this connection refers to *Activity Planning Risk*, i.e. setting out the *"timing and resources for various activities that are linked in a process that leads to a certain result within present time frame."*[94] With other words - it refers to the risk that the required structure being crucial to generate cashflows during the operational phase may vanish, therefore ending up in some worst case scenario.
Another main risk which could arise implies *Technology Risk* suggesting not to use totally unknown, untested technology.[95]

4.2.1.6 Marketing Phase

Real Estate *Marketing* implies a bilateral role, i.e. for the investor and the lender. Only by having a comprehensive *commercialisation or marketing concept* in place, a Credit Risk Manager can assume an appropriate future performance of the project in terms of units for sale or rent offered and realized which implies the repayment of the loan provided by the Bank constituting the first and main recovery option for the Bank.[96]
A Bank´s Credit Risk Manager needs to be careful when reviewing the marketing process which can be accompanied by the following risks:

- exceeded marketing costs compared to overall marketing budget;
- underestimation of purchase or lease payment defaults due to lack of financial due diligence on buyers and/or lessees;
- delay in project sales and hence cashflows due to delay in marketing process per se;
- targeting inappropriate end-users;
- setting sale or lease/rent levels at inappropriate levels.[97]

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[93] c.f. Bifani Darin (2012), p. 41f.
[94] Gatti Stefano (2013), p. 45.
[95] c.f. Gatti Stefano (2013), p. 46.
[96] Author´s own.
[97] c.f. Bifani Darin (2012), p. 42f.

4.2.2 Best-Practice Data Requirements

As a result of the exposure categorization according to Basel II *specialized lending operations* need to be assessed in a different way when comparing to *classical* corporate entities, thus implying also different requirements in terms of data collection.

Out of the specialized lending types in terms of exposure categorization, best-practice data requirements for *(income-producing) Real Estate Financing* as being relevant for the subject master thesis are presented by the figure below. Thereby it is crucial to consider that the availability of the data being required for the risk assessment of project and/or income-producing Real Estate Finance is depending on the respective stage of the project in terms of progress. Hence one needs to specify *credit risk assessment before the project* versus *credit risk assessment during the project:*

Quantitative Data	**Based on past or present development**	Annual financial statements
		Customer account manager
		Income and expense accounts
		Tax returns
		Assets/liabilities (information from customer)
		Equity/grant funding/financing needs
		Collateral value of project assets (realisation proceeds)
		Collateral value of object financed (realisation proceeds)
		Fair market value of real estate
		Rent levels for comparable properties at same location
		Development of fair market value and rent levels
		Liquidity and revenue development
		Target/actual comparison of project progress
		Target/actual comparison of cashflows
		Target/actual comparison of construction progress
		Credit stage/time to maturity
		Credit card transactions
		Purchasing behaviour
	Based on future development	Cashflow forecasts
		Debt service capacity
		Budget calculation
		Expected sales proceeds (collateral value)
Qualitative Data	**Based on past or present development**	Business areas (customer/products)
		Risk structure/risk management
		Business policies
		Industry information
		Enterprise/management
		Market (customers/goods)

		Entrepreneur´s personal traits
		Type of project
		Ownership structure/owner´s creditworthiness
		Liability relationships
		Type of object
		Type of commodity
		Structure of financing transaction
		Type of real estate
		Socio-demographic data
		Type and history of customer relationship to date
		Information on living environment
		Distribution channel
		Purpose
		Fulfilment of requirements
		Occupancy rate
		Further development of customer relationship
		Payment reminder behaviour
		Payment behaviour
		Special agreements
		General legal conditions (group ties)
		Distribution of tasks at local government level
	Based on future development	Planning and future company development
		Business idea/business plan
External Data	**Capital market information**	Stock price/price development
		Public relations/public information
		Current exchange price
		Price development (historical/expected)
	Miscellaneous external information	Country rating (sovereigns)
		Form of government
		General legal and political conditions
		Macroeconomic indicators
		External rating
		Infrastructure
		Credit reporting information
		Creditworthiness of potential tenants/lessees/buyers
		Budget situation

Fig. 12: Data Requirements for analyzing income-producing real estate transactions[98]

[98] c.f. OeNB/FMA, Rating Models and Validation (2004). In: Guidelines on Credit Risk Management prepared by Oesterreichische Nationalbank (OeNB) in cooperation with the Financial Market Authority (FMA), p. 22-27. http://www.oenb.at and http://www.fma.gv.at - retrieved as of Aug 19, 2016.

It has to be noted that all the above information to be obtained is of demonstrative character. In practice, the Credit Risk Manager might ask for additional information which is deemed to be crucial in terms of analysis purposes.

4.2.3 Recovery Analysis

A Bank´s *recovery* out of a loan provided for a real estate project purely depends on the performance of the underlying project. Only after a successful realization of the subject project in terms of successfully selling and/or renting property units or the completed property entirely, the Bank will be able to recover loan size by receiving the cashflows out of the project realisation as source of repayment. The repayment ability of a loan is also subject to assumed *price* and *timing* of the project realization.
A Bank´s Credit Risk Manager is also supposed to provide an expert opinion in terms of recovery probability *before* providing a loan for a real estate development project. Forecasting such recovery probability implies to be very challenging in terms of reliability. Again, the main prerequisite refers to an extensive due diligence undertaken by the Credit Risk Manager.[99]

4.2.3.1 Income-Producing Real Estate Financing – Before the Project

A Credit Risk Manager has to focus on the cashflows generated by the financed asset when it comes to assessing the probability of repayment and hence recovery of the loan provided by the Bank. Sources of those cashflows are usually rental/lease income and/or sale of the real estate asset.
Thereby a Credit Risk Manager has to mainly focus on the cashflow forecast for proceeds from rental/lease income and/or sale of the asset by assessing the rent/lease levels of comparable assets and the market value of the underlying real estate asset in case of selling the asset (e.g. in an enforcement scenario). Deriving the probability of future rent level and real estate price developments is based on an observation of historical time series out of which the expected sales proceeds in case of an Event of

[99] c.f. Gatti Stefano (2013), p. 47.

Default (“EoD”) can be estimated. The borrower´s future repayment ability is assessed by a comparison of a plausible cashflow forecast with the transaction structure.

Another important factor refers to the type of the real estate property. It has to be investigated whether there is an existing market in terms of demand for the subject property. E.g. in case one cannot lease out the property units there will be no cashflow out of which the loan granted by the bank could be repaid.

Ownership structure and creditworthiness of the involved project parties have to be assessed as well – even when taking into consideration that the borrower´s creditworthiness plays a minor role in such real estate project financings. Thus, the financial standing of the future tenants/lessees contributing to the future income generated by the real estate asset out of which the loan shall be served could have a deep impact on the repayment ability.

Country risk also plays an important role. The probability of timely completion of the project, i.e. no construction delays, could be highly impacted in a negative sense when being exposed to an unstable legal and political environment.

4.2.3.2 Income-Producing Real Estate Financing – During the Project

(i) Target/actual comparison of construction progress, (ii) target/actual comparison of cashflows, (iii) occupancy rate and (iv) compliance of covenants and/or fulfilment of requirements do imply the main assessment requirements for a Credit Risk Manager when it comes to assessing the risks related to income-producing real estate assets.

When comparing target and actual status, the Credit Risk Manager will identify whether the construction progress is in line with the business plan. Significant deviations do imply warning-signals that the project might be in troubles. Same can be derived out of the comparison of planned versus realized cashflows in terms of timing.

The fulfilment of construction, environmental or other requirements gives also some important information about the status of the project in terms of potential construction delay or some other risks and challenges to which the project might be exposed to.[100]

4.2.4 Potential Exit Options

Out of the presented exit options below the Bank is clearly seeking for exit options under amicable circumstances in terms of (i) *ordinary repayment of loans according to documentation* and/or (ii) *sale of existing debt to 3rd party* due to a higher recovery to be expected compared to exit options under disputable circumstances as the latter clearly implies higher risk and thus a recovery to a much lower extent ("worst case").[101]

The following overview represents potential **exit options**:

Exit Options under Amicable Circumstances	
Debt	▪ Ordinary repayment of loans according to documentation ▪ Sale of existing debt to 3rd party
Exit Options under Disputable Circumstances	
Debt	▪ Sale of property to 3rd party ▪ Enforcement of collateral rights according to collateral documentation

Fig. 13: Potential Exit Options[102]

In any case it is very crucial to carefully investigate the level of *enforcement risk* of the respective countries by obtaining *Legal Opinions* addressing it before providing a loan for real estate development projects. Thereby one could argue that enforcement risk might be always higher in emerging markets with evolving legal systems compared to developed ones. Again, a prudent Credit Risk Manager should avoid considering disputable exit recovery strategies. In contrary, exit strategies under

[100] c.f. OeNB/FMA, Rating Models and Validation (2004), p. 22-27.
[101] Author´s own.
[102] c.f. Bifani Darin (2012), p. 44.

amicable circumstance should be part of the set of recommendations provided by the Credit Risk Manager.

All in all, for the Bank providing a loan for real estate development projects, a certain degree of *residual risk* in terms of exit options will always remain (compare Appendix II).[103]

4.3 Minimum Requirements for Real Estate Project Finance Deals

Having investigated the complexity of the real estate development process with all its related project risks and challenges, it is evident that a Bank will not succeed in terms of positive recovery in case there is no market-compliant project and financing concept developed.

Appendix I provides a typical indicative *Term Sheet* which is usually agreed between the client and the Bank before the Bank´s Business Lines, Structuring, Legal and Credit Risk Departments before accomplishing an in-depth analysis of the project. However, it is crucial to already have so-called minimum requirements for the applied financing set out in such an indicative term sheet.[104]

4.3.1 Key Terms

Basically a typical term sheet is divided into (i) *general terms*, (ii) *loan terms* and (iii) *other terms*.

The *general terms* usually include the type of financing as well as the names of the lender and lender´s group, borrower, investor/developer and security agent. Also, the real estate project´s name, location, number of land plots with cadastral information and a short project description like e.g. *"acquisition, development and construction of real estate property"* are usually indicated within this term sheet.

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[103] Author´s own.
[104] c.f. Gatti Stefano (2013), p. 86ff.

The *loan terms* usually comprise the amount, currency, use of proceeds, total investment costs, investor´s level of equity contribution as well as information about agreed drawdown procedure, repayment schedule, availability period, closing and final maturity date, interest, margin and various fees (e.g. arrangement and commitment fees) to be paid by the client as well as information on financial covenants (e.g. *Net Present Value, Debt Service Coverage Ratio, Interest Coverage Ratio*). A crucial part of the loan terms refers also to the information about the required collateral package.

Other terms set out in the term sheet usually include representation and warranties, conditions precedent, conditions subsequent, property undertakings, general undertakings, information undertakings, stage zero report, valuation report, event of defaults, taxation, fees and expenses, transferability, law and documentation as well as a confidentiality clause.[105]

4.3.2 Collateralization

A typical collateral package being considered to be of market standard for such kind of real estate project financing includes, but is not limited to:

- Mortgage deed and priority notice over the properties;
- Pledge of 100% of present and future shares in all obligors;
- Assignment of rights under lease contracts with tenants;
- Assignment of rights under the project agreements;
- Accounts shall be held with [lender´s or an affiliate´s name] and shall be pledged in favour of the lender;
- Other collaterals which may be requested by the Facility Agent and specified in the transaction documentation;
- Guarantee provided by the investor/sponsor;
- Sponsor support agreement by the investor/sponsor;
- Commitment letter by the investor/sponsor;
- Subordination of intra-group indebtedness and shareholder loans (if any).[106]

Whereas the nature of most of the above listed collaterals is self-explaining, some might need a little explanation:

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[105] c.f. Fight Andrew (2006), p. 117-119.
[106] c.f. Gatti Stefano (2013), p. 298-306.

- Pursuant the *Sponsor Support Agreement* the developer will agree to make additional equity contributions to the borrower to pay outstanding amounts under the subject loan which cannot be recovered by the lender in case the lessee withdraws from the lease contract.[107]
- Purpose of the *Commitment Letter* is to (i) cover any cost overruns of the project over the costs estimated as part of the *Stage Zero report* for the life of the loan (including loan extensions/refinancing of facilities which cannot be repaid at final maturity date) and to (ii) cover the developer's commitment to provide additional equity in form of equity injections or shareholder loans to be granted to the borrowers under the loan.

  The *Commitment Letter* is to be irrevocable, unlimited in respect of cost overrun coverage unless such coverage is replaced under a turnkey contract. Amounts will be payable as equity contribution into the project immediately upon an *Event of Default* occurring during the life of the facilities, or in case of additional equity need, upon the date when the facilities need to be extended/refinanced beyond the initially agreed final maturity date. No other conditions should prejudice fulfilment by the developer of its obligations in respect of the equity injection.
- The *Stage Zero* report is covering budget, permits, technical feasibility and timing on project construction prepared by a professional surveyor acceptable to the Lender confirming inter alia project construction budget until completion, time required to complete as well as funding and construction schedules in form and substance acceptable to the Lender.
- In case of the issuance of a *Guarantee,* the guarantor shall irrevocably and unconditionally guarantee to the lender punctual performance by the relevant borrowers regarding all their obligations. The guarantee could procure the following protections: (i) *cross default* with other unsecured and secured facilities as well as (ii) *covenants* on the guarantor.[108]

[107] c.f. Gatti Stefano (2013), p. 12f.
[108] c.f. Fight Andrew (2006), p. 116-117.

4.3.3 Conditions Precedent and Subsequent

Conditions precedent (CPs) do refer to legally binding requirements in terms of conditions set out by the Bank and to be fulfilled by the client *before disbursement* of the applied loan whereas conditions subsequent need to be fulfilled by the client *after loan disbursement*, but at a specific due date. In case of not fulfilling such a condition, the non-fulfilment is usually linked to an *Event of Default* ("EoD"), i.e. the loan becomes repayable upon demand.

The loan will be subject to, among others, the following *Conditions Precedent* (each in form and substance satisfactory to the Facility Agent, acting reasonably):

- Satisfactory completion and execution of all loan related documentation (including legal perfection of security, except for condition subsequent);
- Presentation of the signed and valid purchase agreements for the properties and the shares in the PropCos[109];
- Presentation of external valuation report confirming the current market value of the properties and a future market value upon completion in form and substance satisfactory to the Lender;
- Presentation of an environmental report;
- Receipt of legal opinions in form and substance acceptable to the Lender in its sole discretion;
- Presentation of latest financial reports of all obligors including the investor/developer;
- No material adverse change (MAC)[110], in the Lender´s opinion, occurring in the Borrowers' businesses;
- No Event of Default or potential Event of Default having occurred;
- Duly signed utilisation request from the borrower;
- Receipt of all necessary approvals, licenses and permits by the borrowers (mainly valid planning and construction permits);
- Provision of a Stage Zero Report acceptable to the lender (CP to funding);
- Presentation of duly signed, valid and binding lease contracts and infrastructure agreement with the lessee satisfactory to the lender covering a certain percentage of the leasable area and providing for an annual secured lease a certain amount;
- Assignment of planning contracts and trust agreement;
- Payment of arrangement fee.

[109] Property Company, i.e. Special Purpose Company (SPC)
[110] Legal provision that enables the acquirer (or funder) to refuse to complete the acquisition or merger or financing with the party being acquired (often termed, the "target") if the target suffers such a change.

The Borrowers will make available to the lenders all necessary *Due Diligence Information* including, but not limited to:

- Constitutional documents and corporate authorities of the borrowers;
- Evidence required by the lenders for Know Your Customer ("KYC") purposes;
- Group structure chart duly signed by the borrowers.

Other conditions precedents customary for a transaction of this nature could be required by the Facility Agent and therefore be specified in the loan documentation as well.[111]

The Loan will be subject to, among others, the following *Conditions Subsequent* (each in form and substance satisfactory to the Facility Agent, acting reasonably):

- Mortgage deed and priority notice over the properties;
- Turnkey contract to be agreed by the date falling certain months after the start date of a certain financing phase or a later start date of a certain financing phase as agreed between the developer and lessee.[112]

4.3.4 Undertakings

Typically, one distinguishes between (i) *general*, (ii) *property* and (ii) *information undertakings*.

Property Undertakings being customary for a transaction of this nature include, but are not limited to

- Provision of reasonable access to the property upon prior notice to the borrowers;
- Property has to be kept insured at all times during the term of the loan with insurers and risks covered being acceptable to the lender;
- No amendment of the existing lease contracts and infrastructure agreement without prior written consent of the lender;
- Procurement by the borrowers that the initial average weighted life of lease contracts will be not less than a certain amount of years;
- Other property undertakings which the Facility Agent may request and which will be specified in the loan documentation.

[111] c.f. Gatti Stefano (2013), p. 279-281.
[112] c.f. Fight Andrew (2006), p. 135-137.

The *Loan Agreement* will contain general undertakings customary for a transaction of this nature that the Facility Agent may request and which will be specified in the loan documentation, including, but not limited to the obligation to receive prior written consent of the lender for the following transactions:

- No provision of loans, credits and other forms of financial accommodation, including guarantees and sureties;
- No payment of dividends or payments under shareholder loans;
- No new debt on the level of the obligors except for permitted and subordinated debt/shareholder loans that are considered quasi equity;
- No change of ownership in the obligors;
- No legal proceedings;
- Positive net asset value of all obligors including the investor/developer;
- Returns of VAT (if any) shall be routed to the accounts with the lender and shall be used for prepayments of the loan;
- Form and material content of the lease contracts, further infrastructure agreements and the project agreements (including turnkey contract) to be acceptable to the lender;
- Any cost overruns to be borne by the investor through additional equity contribution via an unconditional and irrevocable agreement.[113]

The Loan Agreement will contain *Informational Undertakings* customary for a transaction of this nature, including but not limited to:

- Annual financial statements prepared in accordance with IFRS[114], local GAAP[115] etc.; accounting firm to be acceptable to the lender;
- Semi-annual management reports;
- Monthly progress reports on development of the project;
- Notification of any Event of Default or potential Event of Default;
- Annual submission of compliance certificates confirming that all financial covenants are in compliance;
- Any further material information relating to the project and properties as may be reasonably required by the lender.[116]

[113] c.f. Fight Andrew (2006), p. 117-121, 133-135.
[114] International Financial Reporting Standards
[115] Generally Accepted Accounting Principles
[116] c.f. Gatti Stefano (2013), p. 91-97.

4.3.5 Covenants

Efficient covenanting in terms of financial control and project monitoring does also constitute an important part of the *Terms & Conditions* being set out in a Term Sheet. Covenants as undertakings provided by the borrower and being part of the loan contract shall help the lender to ensure non-deterioration of the risk implied by the loan prior to maturity. Breaches of such covenants are usually linked to an *Event of Default.* Thus, for the borrower the negotiation of such covenants usually constitutes big challenges as they remain a serious restriction during the whole tenor of the loan.

The main functions of loan covenants do refer to

- setting out restrictions in order to protect the company against financial distress,
- providing the Bank´s Credit Risk Manager with an *early warning signal* e.g. when the company starts significantly changing its business in terms of operations,
- putting restraints for certain actions, which a company is usually undertaking when being in financial distress and
- triggering an Event of Default in case of covenant breach to ensure immediate payment upon demand. [117]

The most important *Cover Ratios* for project finance transactions do typically comprise the following ratios:

- *Debt Service Cover Ratio* (DSCR) refers to the relation of Operating Cashflows (OpCFs) of the project to the Debt Service on principal and interests for each year of project operation. During the construction stage the ratio is obviously zero. The ratio implies that the financial resources generated by the project must be able to cover the debt service to the bank in any given year of operations.
- *Loan Life Cover Ratio* (LLCR) refers to the relation of Net Present Value (NPV) of the projected revenues during tenor of the loan (i.e. loan life NPV) to the Bank´s Debt outstanding at any point in time. With other words, the outstanding debt at some given point in time refers to the discounting of the

[117] c.f. Fight Andrew (2006): *Introduction to Project Finance*, Butterworth-Heinemann, Imprint of Elsevier, Oxford, United Kingdom, p. 121-133.

debt services that have to be paid to the bank for all the outstanding exposure of the loan itself.[118]

Next to control accounts for project finance like disbursement, proceeds and compensation accounts, the following two reserve accounts are typically set out:

- *Debt Service Reserve Account* in case the project cashflow adversely varies caused by unforeseen circumstances.
- *Maintenance Reserve Account* in case the project cashflow is exposed to some cyclicity.

Non-financial covenants do refer to (i) negative pledge restricting the borrower to provide collateral over its assets prior to a lender in the future, eventually (ii) provision of guarantees by intra-group entities, (iii) information undertakings referring e.g. to the quarterly submission of management accounts in addition to yearly submission of an audited financial report and (iv) limitations on capital spending, asset disposals and acquisitions.

Caused by the complexity of project finance transactions, *covenants* set out for project finance are usually much more complicated compared to a standard loan as those project finance covenants do need to consider all circumstances and eventualities addressing (i) reports on project construction and completion, (ii) notice of certain events, (iii) existence and project interest maintenance, (iv) tax payments, (v) compliance with law, approvals, permissions and licences, (vi) no merger or consolidation, (viii) engineering standards for construction and operation, (ix) maintenance of properties, (x) environmental compliance, (xi) insurance and insurance proceeds, (xii) compliance with project performance documentation, (xiii) amendment, termination or replacement of project-related documentation, (xiv) change orders or change of business, (xv) restriction on additional indebtedness, investments, dividends and specified payments, (xvi) mandatory prepayment triggered by the occurrence of certain events from excess cashflow, (xvii) financial tests, (xviii) compliance with milestones, (xix) change in the project, (xx) project support, (xxi) financial reporting, (xxii) use of proceeds, (xxiii) security documents,

[118] c.f. Gatti Stefano (2013), p. 152-158.

(xxiv) operating budget, (xxv) trustee account, (xxvi) capital expenditures, (xxvii) transactions with affiliates, (xxviii) construction cost overruns and, (xxix) other covenants.[119]

4.3.6 External Due Diligence Reports

For most financial institutions there will be a necessity to engage external, independent market appraisal companies, lawyers, environmental and technical specialists in order to support them regarding the issuance of market valuation reports, legal opinions and other related due diligence reports.

An overview of the most important external due diligence reports related to real estate project finance is provided as follows:

- Market valuation reports by independent appraiser acceptable to the lender,
- Environmental Report,
- Monthly construction progress reports,
- Technical Due Diligence,
- Financial and Tax Due Diligence,
- Overall Legal Due Diligence,
- Others (if applicable).[120]

4.3.6.1 External Market Valuation Report

Market Value as defined in *Royal Institution of Chartered Surveyors´* (RICS) Valuation Professional Standards and in *International Valuation Standards* (IVS) Framework paragraph 29 refers to the *"estimated amount for which an asset or liability should be exchanged at the valuation date between a willing buyer and willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion."*[121]

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[119] c.f. Fight Andrew (2006), p. 121-133.
[120] c.f. Gatti Stefano (2013), p. 81-89.
[121] Wyatt Peter (2013): *Property Valuation*, 2. Edition, Wiley-Blackwell, A John Wiley & Son, Ltd. Publication, West Sussex, United Kingdom, p. 57f.

The Bank will usually require that the market valuation report is provided prior to the first drawdown and as a condition subsequent at any time while an Event of Default is continuing. The independent appraiser will be usually appointed and chosen from the lender´s pre-approved list of appraisers at borrowers' cost. The property valuation, which shall determine the current and future (upon completion) market value of the properties, shall be issued according to international valuation standards and is usually based on the net operating income generated by the properties. Furthermore, the valuation report shall be based on an instruction letter to be agreed in advance between the lender and the borrowers.

When doing a plausibility check of an external market valuation report, a Bank´s Credit Risk Manager has to be aware of the following requirements:

(i) Applicable Valuation Standards

In the best case the external market valuation reports shall be undertaken in accordance with the *Royal Institution of Chartered Surveyors´ (RICS) Valuation - Professional Standards 2014,* Global & UK edition ("the Red Book") including the International Valuation Standards (IVS).

In case there are newer Professional Standards available, the newer standards should be applied.

(ii) Requirements to the External Experts

The external experts engaged by the Bank need to be competent, capable and objective and act with independence and integrity. They should comply with the following professional requirements:

- An external expert should be compliant with any country or state legal regulations governing the right to practise valuation.
- An external expert should have appropriate academic/professional qualifications, demonstrating technical competence.
- An external expert should possess a sufficient current local, national and international (as appropriate) knowledge of the asset type and its particular market, and should have the skills, experience and understanding necessary to undertake the valuation competently.
- Membership of a professional body demonstrating a commitment to ethical standards is strongly advisable. Where the appraiser is a member of RICS,

compliance with the RICS Valuer Registration (VR) requirements is obligatory.

- An external expert should not have any material involvement with the subject of valuation or with the one of the deal-related parties, i.e. act with independence and integrity.
- An external expert should have professional indemnity (PI) insurance with coverage of each and every case not less than a EUR100M.
- An external expert should have no negative experience with the bank.
- An external expert should not undergo any bankruptcy or insolvency proceedings and should have a good financial status.
- There should be no lawsuits and proceedings involving external expert, essential to his professional activities, as well as court decisions confirming the incompetence or lack of professionalism of the appraiser or criminal cases related to their professional activities.[122]

There is a long list of internationally well-known, reputable and acceptable real estate appraisers on the market, the most important of which are e.g. *Colliers, CBRE Richard Ellis, Knight Frank, Cushman & Wakefield, Jones Lang LaSalle, KPMG, Price Waterhouse, Deloitte, Ernst&Young, TPA Horwath, DTZ* and many more.[123]

(iii) Valuation report

Identifying the client, the purpose and subject of the valuation, the type and use of the property, legal interests and the basis for valuation per se do refer to minimum requirements set out for an external valuation report. Assumptions and conditions regarding e.g. the title, condition of building, planning, contamination issues etc. as well as information about the inspection, valuation and report date have to be stated in the valuation report. The valuer and disclosure status regarding any previous involvement, the level and nature of investigations as well as the respective source of information do constitute crucial parts in terms of contents to be included in any valuation report. Last but not least the valuation amount and the valuation method used have to be explicitly stated and elaborated there as well.[124]

[122] c.f. ACCA Student Accountants SA (2011): Using the work of an auditor’s expert, p. 1-4. http://www.accaglobal.com/student/student_accountants/archive - retrieved as of Aug 20, 2016.
[123] Author´s own.
[124] c.f. Wyatt Peter (2013), p. 73.

(iv) Selection of the valuation method based on the type of the property

Depending on the type of the property, the application of the following main appraisal methods is recommended:

- Income producing properties, i.e. office buildings, shopping centres, logistic/warehouses, hotel, apartment buildings, construction in progress – *Income Approach*, preferably *Discounted Cash Flow* (DCF) method.
- Residential properties, i.e. condominium apartment/house, single-family or multi-family houses, land plots – *Sales comparison approach*.
- Other real estate properties – depending on its status, characteristics and available market data.[125]

4.3.7 Minimum Requirements – Sponsor and Projects

In practice, the Bank will require minimum standards in terms of *sponsor* quality like (i) a certain percentage, usually a minimum of [20-30]% of equity contribution from transparent and reliable sources, (ii) transparent ownership structure, (iii) successful track record of past investment projects and (iv) professional management with positive track record.

In case only one of the above mentioned criteria is violated, the bank usually won´t proceed with the applied project financing.

Mandatory minimum requirements for the *projects* shall refer to (i) a minimum threshold for *Interest Rate of Return* (IRR) of a certain percentage, usually a minimum of [20]%, (ii) no or limited technology risk and no economically and commercially untested technology, (iii) no market risk in terms of presence of long-term off-take or forward purchase or presence of a clear market leadership position and (iv) strong completion coverage and/or construction contractual structure implying a strong preference for turnkey *Engineering-Procurement-Construction* (EPC) with a contractor being experienced and creditworthy.

In case only one of the above mentioned criteria is violated, the bank usually won´t proceed with the applied project financing.

[125] Wyatt Peter (2013): *Property Valuation*, 2. Edition, Wiley-Blackwell, A John Wiley & Son, Ltd., Publication, West Sussex, United Kingdom, p. 57-69, 103-142.

Strongly preferred minimum requirements for *projects* from a Bank´s perspective shall refer to (i) a theoretical repayment period of up to a certain period of time, usually [12-15] years, preferably with a weighted average life (WAL) of not exceeding a certain period of time of usually maximum [7] years, (ii) good quality information implying a plausible business plan accompanied by a bankable feasibility study, (iii) Debt Service Coverage Ratio (DSCR) of a certain percentage, usually of a minimum [1.25]x referring to strong pro-forma economic and financial viability and (iv) willingness to instruct reviews by external experts.[126]

[126] Author´s own.

5 Managing Real Estate Finance Risk in Russia

The following chapter comprises Russia´s economic overview with its risks and challenges as well as the specifics of Russia´s commercial and industrial real estate market segments. The most important emerging market real estate project financing risks were invested in detail in chapter 3. Thus, the focus in the following chapter shall be merely on specific *Investment Structure Risks in Russia* and the main drivers for banks to continue providing financings for real estate projects in emerging markets given their generally higher risk bucket compared to developed countries.

5.1 Economic Overview Russia

The following figure shows the most important macroeconomic key data of Russia in FY2015:

RUSSIAN FEDERATION	**2015**
Population, million	143.3
GDP, current US$ billion	1324.8
GDP per capita, current US$	9242
Poverty rate ($2.5/day 2005PPP terms)	0.8
Poverty rate ($5/day 2005PPP terms)	7.3
Gini Coefficient	41.6
School enrolment, primary (% gross)	100.6
Life Expectancy at birth, years	70.4

Fig. 14: Macroeconomic Overview Russia[127]

5.1.1 Recent Economic Developments

In 2015 by having its peak in 2H 2015 Russia was exposed to a deep recession given challenging economic adjustments. Forecasts that the Russian economy would recover in 3Q2015 failed. By the end of 2015, the Russian economy was challenged for six consecutive quarters, with year-over-year negative growth to -4.1% in 3Q2015 and -3.7% in 4Q2015.

[127] c.f. http://www.worldbank.org/en/country/russia/overview; last updated Sept 13, 2016 – retrieved as of Sept 19, 2016.

A surprisingly second shock regarding the oil price development in August 2015 continued putting pressure on the local currency by keeping inflation in double digits at 15.6%. The increased inflation had strong negative impacts on real wages, pensions and other transfers leading to an estimated 7.9% decrease in consumption. Since the global financial crisis in 2008 related efforts of the authorities against inflationary pressures were challenged in terms of monetary easing. Thereby the Russian central bank was keen on keeping its key policy rates at 11% since 3Q2015. Also, the extension of the international sanctions resulted in restricted access to global financial markets and capital inflows followed by a deep negative impact in terms of damaging investors´ confidence. Companies reduced their investments in expanded production due to high capital costs and strongly reduced consumer demand leading to a strong drop in gross capital formation by 18.3% in 2015; the level of which continued contracting for a third consecutive year.[128]

The Russian central bank's efforts to a flexible exchange rate regime[129] contributed to currency realignment in a positive sense also supporting the economic transition. The rubble's average exchange rate decreased by 37.4% against the US dollar in 2015. The oil prices decreased to 47% resulting in a huge negative impact on the import volumes by fairly doubling the current-account surplus to 5% of GDP. Russian companies could profit from relative prices leading to an improvement of export performance in some non-energy commodity sectors (e.g. coal, metals, and chemicals). To introduce a fiscal-consolidation plan was the main related challenge for the government of Russia.

To compensate for decreasing oil profits, federal expenditure dropped in real terms, but this was not sufficient; a deficit of 2.4% was the result. Related financing was provided by the Reserve Fund, but it was cut into halves by the end of 2015 to US$46.0 billion. Also, a RUB2.4 billion anti-crisis plan was given supporting e.g. the financial-sector stability due to bank recapitalization.

Driven by adverse trends in inflation and inflows, an increase of the poverty rate from 7.0% in 2014 to 7.7% was observed in 2015 constituting a moderate level only.

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[128] c.f. http://www.worldbank.org/en/country/russia/overview; last updated Sept 13, 2016 - retrieved as of Sept 19, 2016.

[129] c.f. Sercu Piet & Uppal Raman (1995): *International Financial Markets and the Firm*, 1. Edition, South-Western College Publishing, London, United Kingdom, p. 12f.

A disproportionately drop in the purchasing power of poorer households was caused by a food price inflation averaged 19.1% in 2015. The high inflation could not be compensated by nominal wage growth. There was a drop in real wages by 9.5% in 2015, but unemployment increased only by a bit up to 5.6% compared to a record low level of 5.3% in 2014. Poor households depending on the public sector for a substantial part of their incomes were strongly influenced by the limited indexation of public wages, pensions, and transfers. Fairly 60% of the income of the poorest 20% is provided by public sector support.

5.1.2 Risks and Challenges

The Russian economy is heavily exposed to challenges in fiscal policy and financial-sector restructuring. Due to substantial drops in fiscal buffers the policy space for the second stage of adjustment is limited. Challenges for the budget-planning process in 2017 do imply maintaining fiscal discipline. Important to mention that the huge recapitalization of financial institutions temporarily led to a stabilisation of the financial sector, but the management of systemic vulnerabilities still stipulates for constant monitoring and an ability to implement the required measures. Growth of the Russian economy in the long-run strongly requires strength of its structural reforms.

As said there is strong need to increase public support in terms of fiscal transfers, public-sector wages, and pensions for the poor households. This can be achieved only by targeting an improvement of the social-protection programs. Thus, restoring the labour market in order to reduce poverty and increase income constitutes a challenge in the medium-run.

5.1.3 Outlook Russian Economy

It is anticipated that the Russian economy is continuing to be exposed to those conditions that drove the Russian economy into recession implying another challenging year in 2016[130] implying a reduction in real GDP of 1.9% in 2016. Forecasts on oil price developments assume an average level of US$37 per barrel in 2016. In 2017 the oil price level shall be brought back to its 2015 average level of around US$50 per barrel. Commodity prices shall heavily influence the Russian economy in the medium-run in terms of outlook. Based on improvement of investment dynamics, an increase in oil prices and a reduction of credit costs, the projections for the GDP growth in Russia suggest a return to a positive level of 1.1% in 2017.

Due to a rise of the unemployment rate and as the economy as such is still contracting, the poverty rate in Russia is assumed to increase further up to 8% in 2016. Anti-poverty spending from the government will be limited due to the requirement for fiscal consolidation efforts. Nevertheless, the poverty rate shall decline to 7.7% in 2017 due to enforced social benefit targets and an expected recovery of the economy as a whole in 2017.[131]

5.2 The Russian Real Estate Market

"The worst of the recession may be over for Russia's real estate industry".[132]

In 2016 Russia´s real estate industry is said to continue suffering from Russia´s contracting economy, but conditions are expected to get improved in 2017:

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[130] At the time when issuing the master thesis, there was no recent sovereign report for FY2016 on the Russian economy available on Worldbank´s homepage confirming the forecasted data for 2016 above.
[131] c.f. http://www.worldbank.org/en/country/russia/overview; last updated Sept 13, 2016 - retrieved as of Sept 19, 2016.
[132] Geyze Anton (2016): The Worst of the Recession may be over for Russia´s Real Estate Industry, Moscow, July 5, 2016. On: https://www.standardandpoors.com - retrieved as of Sept 19, 2016.

Enhanced financial policies and support from government for demand in primary markets lead to the assignment of stable ratings by the external rating agencies for Russian real estate developers.

Furthermore, an anticipated improving macroeconomic environment should help to overcome pressures in the medium-run. The significant cash balances hold by market players shall also provide some comfort in the short-run.
Due to the long-term nature of their lease contracts, it is basically assumed that an adjustment in the commercial property sector might take longer to get effective. Thereby high foreign currency risk has to be carefully considered as usually debt and tenant contracts are denominated in euros or US dollars whereas in most cases the tenants´ income is denominated in rubble being the local currency. Also, commercial property holders are normally exposed to higher leverage than the residential ones, for instance. To overcome the respective and required deleveraging belongs to one of the currently main challenges for the commercial property rental companies.[133]

5.2.1 Real Estate Investment Volume Growth

Basically, investment volume growth has moderated by a 50% decline in Q2 2016[134] down to US$390 million compared to 1Q2016. A partial driver was the rubble strengthening leading to a review of agreed value in rubbles. Crucial to note is that the investor capital is initially denominated in foreign currency. The decline in investment volume had no impact on the 1H2016 volume per se, which has doubled up to US$2.3 billion compared to 1H2016.
All deals were closed with Russian capital in 2Q2016 resulting in foreign investment into real estate for 4% only.

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[133] c.f. Geyze Anton (2016): The Worst of the Recession may be over for Russia´s Real Estate Industry, Moscow, July 5, 2016. On: https://www.standardandpoors.com - retrieved as of Sept 19, 2016.
[134] At the date when issuing the following sections of the master thesis all the available market research reports were based on 1H2016.

Investors are currently keen to take advantage of the potential of the asset value recovery as a result of market correction by also considering positive signs at macroeconomic level.[135]

The following graph is representing the development of total investment volume in Russian commercial real estates from 2007 until 1H2016:

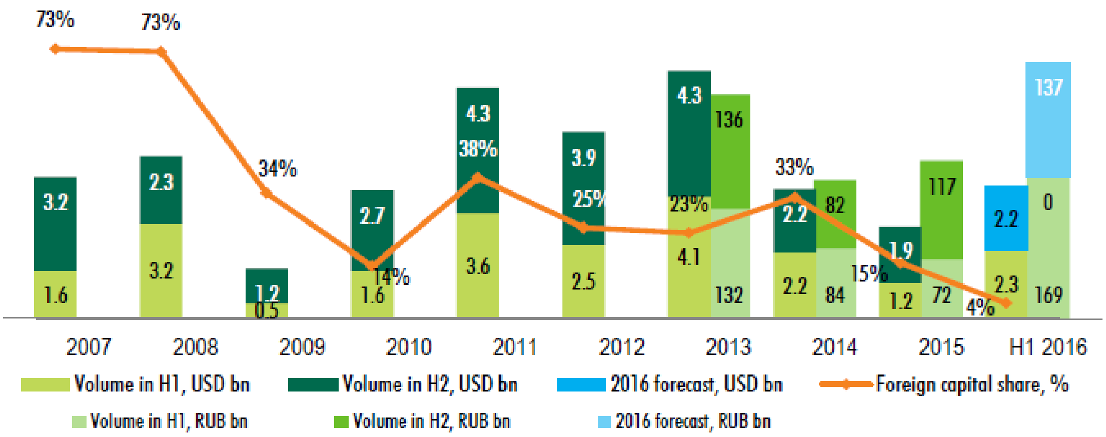

Fig. 15: Total Investment Volume in Russian Commercial Real Estates[136]

5.2.2 Key Market Indicators and Results of 1H2016

Compared to previously made projections a certain level of improvement of the key indicators at macroeconomic level was visible by end of 1H2016 which was mainly supported by a strengthening of the rubble throughout 1H2016. Next to an obviously decreasing volatility of the national currency, improved forecasts for GDP growth by end of 2016 and a further cut of the key policy rate down to 10.5% do clearly contribute to the current market stabilisation in a positive sense.

Nevertheless, a still cautious approach in terms of actions is visible among the investors which the 1H2016 results do reflect as well by ending up with 23% of

[135] c.f. CB Richard Ellis Russia (2016): Russia Property Investment Q2 2016, Moscow, p. 1. https://www.cbre.com/reseachgateway - retrieved as of Aug 30, 2016.
[136] c.f. CB Richard Ellis Russia (2016): Russia Property Investment Q2 2016, Moscow, p. 1. https://www.cbre.com/reseachgateway - retrieved as of Aug 30, 2016.

closed deals between April and June 2016 out of total transaction volume of US$2.3 billion only. Such low level of closed transactions in 2Q was visible in 2009 for the last time. Nevertheless, the projections for a total annual volume of US$4 billion do remain given the number of assets which are currently subject to negotiation in Moscow and Moscow regions.

Real estate debt management and the current economic decisions, both being currently very challenging, led already to a transfer of some real estate assets to the lenders, i.e. assets, which were previously considered to serve as collateral for the loans provided by the lenders.[137]

The following tables are showing the total investment volumes for the office, retail, industrial and hotel segment, the related prime yield ranges in 1H2016 as well as the oil price and RUB/USD exchange rate developments 1Q2013 – 2Q2016:

Key market indicators in H1 2016

INDICATOR	VALUE
Total volume of investments, $m	2,415
Office	2,132
Retail	24
Industrial	147
Hotel	112
Prime yield*, %	
Office	9.5-10.5%
Retail	9.5-10.5%
Industrial	12-13%

* Prime commercial real estate, leased at market terms, located in Moscow, with major Russian and international companies as tenants

[137] c.f. Colliers International Russia (2016): Russia / Commercial Real Estate Market Overview H1 2016, Moscow, p.1.; https://www.colliers.ru - retrieved as of Aug 30, 2016.

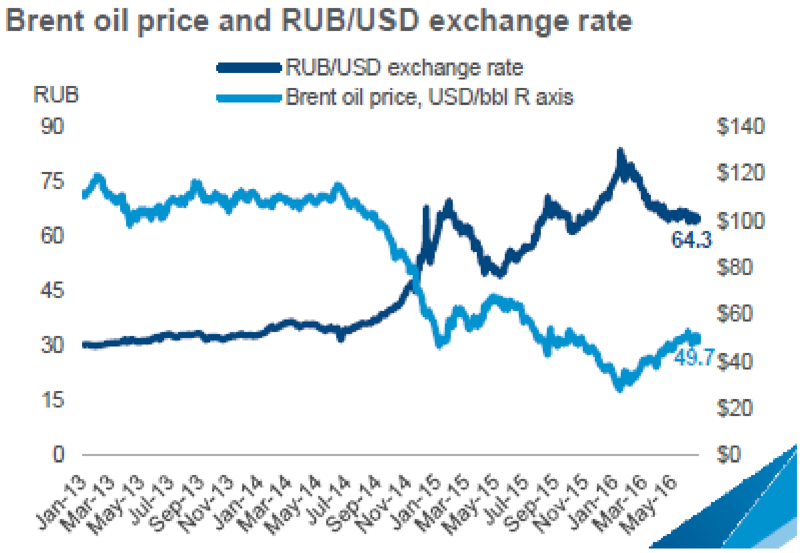

Fig. 16: Russian Key Market Indicators H1 2016[138]

5.2.3 Outlook Russian Real Estate Market

"In summer 2016 Russian real estate market has hit the bottom. Although we may see in coming month consolidation of rents towards the lower levels, fundamental trend had changed. This does not mean prompt recovery and change of the cycle. Most probably market will remain flat until 2017 or maybe even 2018."[139]

Positive impact on the Russian investment market is expected to go in line with the current stabilisation on Russia´s macroeconomic level. Thereby it is assumed that Russian capital will still dominate in terms of transaction volume.

On the other hand, a negative process implying the transfer of assets to the ownership of the banks as a result of default in terms of contractually committed repayment obligations by the previous owner is currently not neglect able. It will be mostly up to the current owners of the various real estate properties to improve the current situation of their assets. Only in case the Bank will see strong commitment from the

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[138] c.f. Colliers International Russia (2016): Russia / Commercial Real Estate Market Overview H1 2016, Moscow, p.1.; https://www.colliers.ru - retrieved as of Aug 30, 2016.
[139] c.f. Cushman & Wakefield Russia (2016): Commercial Real Estate Russia #Marketbeat Q2 2016, Moscow, p.3. https://www.cwrussia.ru - retrieved as of Aug 30, 2016.

owners, it could be ready to negotiate for potential restructuring solutions rather than taking ownership of the assets which is by the way not the goal of a Bank´s strategy. In case of oil price and currency rate stabilisation, the Russian real estate market is expected to become more active. Thereby both the investors and the banks will most probably have a strong focus on high-quality real estate assets implying stable cashflows based on long-term lease agreements.[140]

Nevertheless and under the assumption that rubble rent will remain stable, exchange rate will be volatile and inflation will be around 6.8%, property value management remains as a serious challenge.[141]

5.3 Russian Real Estate Market Sectors

The following sections will in short describe the current situation in terms of demand and supply as well as some outlook for the set of Russian office, industrial and retail real estate market sectors mainly in the City of Moscow and Moscow regions.

5.3.1 Office Sector

Regarding the annual supply rate there is a negative trend observable with a 16% lower completion level in Q2 2016 compared to Q2 2015 and an ever lower one with 65% less compared to the same period in 2014. In Q2 2016 total supply of high quality office space in Moscow was around 16.9 million sqm, whereas the level of property completion amounted to 111,800 sqm implying a slowdown in construction.

[140] c.f. Colliers International Russia (2016): Russia / Commercial Real Estate Market Overview H1 2016, Moscow, p.1. https://www.colliers.ru - retrieved as of Aug 30, 2016.
[141] c.f. Cushman & Wakefield Russia (2016): Commercial Real Estate Russia #Marketbeat Q2 2016, Moscow, p.3. https://www.cwrussia.ru - retrieved as of Aug 30, 2016.

Class B+/- offices comprised 73% of total new supply in terms of completion in Q2 2016 whereas only one Class A office project was introduced on the market. Class A office properties constitute 23% of the total office market in Moscow, whereas Class B+/- around 77%.
An increase in demand was visible by end of Q2 2016 compared to the beginning of 2016 implying an increase of 50% quarter over quarter for leased and purchased office space. Nevertheless, the indicator for demand still represents a decrease by 20% annually. Less space was completed in H1 2016 compared to H1 2015. In terms of demand structure purchases of office space increased compared to 2015, but the regularity of those transactions is of course lower when comparing to pre-crisis period of 2013. A substantial share in the total number of transactions exceeding 30% in H1 2016 still refers to renewals and renegotiations of existing lease terms and conditions.
The vacancy for Class A office properties stood at 22.8% and for Class B+/- at 10.9% resulting in an average vacancy rate of around 15% for both classes in Q2 2016.

Driven by expected price falls going in line with the rental decline, there was an increasing demand for office purchases from potential buyers since the beginning of 2016. Crucial to mention in that respect is the fact that asking prices, which are denominated in roubles, haven´t shown any substantial drop since the end of 2014. The market average sales price in Class A was RUB 275,000/sqm, whereas for Class B+/- it fluctuated between RUB 120,000 and RUB 160,000/sqm.

Due to fixing the upper level of the exchange rate band at the internal rate in case of signing new lease agreements, most of the property owners could take advantage of a rental decline by approximately 15% in addition to the adjustment of the USD-denominated asking rents in Class A office properties by 5% in Q2 2016. Asking rental values for Class B+/- offices remained fairly stable amounting to RUB 12,565/sqm/year. The market average rent translated into dollars reached US$ 393/sqm/year for Class A and US$ 205/sqm/year for Class B+/- office properties.

There is a slight increase in supply of new office space expected in H2 2016 compared to H1 2016. Level of completion by end of 2016 is forecasted with 500,000 sqm in absolute numbers.

The further development at macroeconomic level is expected to have a huge impact on the creditworthiness of the tenants as well as their attitude to look for new office space in 2017. Assuming a stabilisation of economy there could be a potential increase in demand for new office space of up to 20% year over year in 2017. The market activity per se is forecasted to remain at a lower level as it stood in 2016 resulting in a drop of 30-40% in terms of completion per annum. The overall vacancy rate of 2016 is estimated to stay at the level of 14.5-15.5% in 2017. Worth to mention that the into dollar translated values of the rental rates will heavily depend on the development of the exchange rates.

All in all, a more balanced office market in terms of demand and supply is expected to be created in 2017, but subject to general stabilisation of the economy. [142]

The following table provides a snapshot of the key market indicators for the office sector in Moscow region:

[142] c.f. Colliers International Russia (2016): Moscow / Office Market Overview H1 2016, Moscow, p.1-6. https://www.colliers.ru - retrieved as of Aug 30, 2016.

Key market indicators		
INDICATORS	H1 2015	H1 2016
Total stock, million sq m	16.2	16.9
Class A	3.6	3.8
Class B	12.6	13.0
Completions, thousand sq m	216.7	174.9
Take-up, thousand sq m	532.6	404.7
Vacancy rate, %	14.4	14.9
Class A	27.2	22.9
Class B	10.8	12.6
Weighted average rental rates in CBD, $/sq m/year	600	440
Class A	754	550
Class B	450	325

Fig. 17: Office Real Estate Sector´s Key Market Indicators[143]

5.3.2 Retail Sector

In H1 2016 the overall stock of quality shopping centres in Moscow implies a level of 6,275 thousand sqm, out of which 87% do refer to *classic* shopping centres. In the Moscow region stock per capital was 2.7 times higher compared to the average of the country, but still implying some potential to further develop new *professional* shopping centres in Moscow region. To determine a shopping centre to be professional the following standards in terms of combination need to be applicable: (i) reasoned commercial and architectural concept, (ii) majority of tenants to be operated by well-known, (iii) reputable and professional retail chains and (iv) project to be managed by professional management.

Shopping centres with a *gross leasable area* (GLA) of 129.6 thousand sqm opened in Moscow in 1H 2016 whereas the number of retail stores which were opened in the same time frame in 2016 was quite low with 36% of retail space or 36 stores in terms of numbers.

[143] c.f. Colliers International Russia (2016): Moscow / Office Market Overview H1 2016, Moscow, p.1. https://www.colliers.ru - retrieved as of Aug 30, 2016.

A gradual improvement in terms of renting major shopping centres in Moscow with partly high vacancy rates was observable within the last couple of years. In some of the top shopping centres being on the market for quite a long time a kind of tenant rotation is visible.
With 59% the fashion tenants do comprise the largest share of space in the newly opened shopping centres followed by the entertainment tenants with 18%. The 1st rank related to number of openings is also referring to the fashion tenants implying 54 newly opened stores whereas the 2nd rank with 12 new outlets is assigned to catering.
Last year there was a fairly selective expansion of newcomers for international brands on the Russian market observable with only 2 or 3 stores opened mainly in Moscow.

The vacancy rate in shopping centres in Moscow slightly increased in H1 2016. It is anticipated that the vacancy growth rate in 2H 2016 will be around 1.5-2.0% resulting in an average annual growth rate of approximately 10-11%. This is also caused by the current trend of active leasing of existing space in shopping centres in Moscow.

It is forecasted that around 425,000 sqm of high quality retail space shall be finished in H2 2016 in Moscow. However, a recovery of the current retail real estate situation is not assumed to happen before 2020 in Moscow region. Because of a selective introduction of new construction by developers resulting in a decrease in completion and a gradual lease-out of retail space in existing shopping centres, the supply of quality retail space offered for lease in Moscow shall gradually decrease within the next 5 years. Thereby mostly high-quality projects are said to enter the market given close bank financing, restricted foreign investment and a decreased consumer demand.[144]

[144] Colliers International Russia (2016): Moscow / Retail Market H1 2016, Moscow, p. 1-4. https://www.colliers.ru - retrieved as of Aug 30, 2016.

A record high level of the vacancy rate in operating shopping centres is projected to reach 16.5% by end of 2016.[145]

The following overview shows the key market indicators in the retail sector in Moscow:

Key market indicators in H1 2016	
INDEX	VALUE
Total stock, including specialized SC, thousand sq m (GLA)	6,275
Total stock, thousand sq m (GLA)	5,452
Completions in H1 2016, thousand sq m (GLA)	129.6
Number of shopping centres opened in H1 2016	4
Vacancy rate, %	8.5
Retail stock per 1,000 capita, sq m (GLA)	452

Fig. 18: Retail Real Estate Sector´s Key Market Indicators[146]

5.3.3 Industrial Sector

The total stock of quality industrial space in the market of Moscow region was up to 12.2 million sqm in H1 2016; thereof Class A industrial properties contributed with 9.8 million sqm whereas Class B industrial properties´ share was 2.4 million sqm. Compared to H1 2015 a much lower level in terms of sqm of the industrial space went life for operation, i.e. 147 thousand sqm in H1 2016. The main driver refers to the fact that developers with lower demand do first realize already present vacant space rather than going for new projects which might be more speculative.

[145] Knight Frank Reseach Russia (2016): Retail Market Report H1 2016, Moscow, p. 6. https://www.knightfrank.ru - retrieved as of Aug 30, 2016.
[146] Colliers International Russia (2016): Moscow / Retail Market H1 2016, Moscow, p. 1. https://www.colliers.ru - retrieved as of Aug 30, 2016.

A large volume of Class A industrial properties implying big logistic park complexes with construction completion in 2014 is located in the south and north of the Moscow region constituting the largest share of existing supply.

Most active in H1 2016 were the Russian retailers who leased large units of Class A warehouse space with a range between 10,000 sqm and 50,000 sqm. Given the current economic situation it is visible that Russian entities are supposed to be more flexible in terms of mobility compared to Western ones. There was also some interest for leasing small warehouse units from 2,500 sqm to 3,000 sqm observable driven by the offer for advantageous commercial terms for quality warehouse space leading to some re-allocations.

The facts that industrial properties built in the last couple of years are mostly leased out quite slowly and many companies have reduced their leased space by downsizing do contribute largely to the currently high level of average vacancy rate of 11.3% in H1 2016 compared to H1 2015. Only in case the construction of new industry space will be limited, the current vacancy rate is expected to get reduced.

Fairly all new lease agreements for industrial space are denominated in rubble rates which currently tend to stabilize with the market situation. Rental rates remained quite stable since the end of 2015 with an average Class A market rent of RUB 3,800-4,200/sqm/year and an average Class B market rent of RUB 3,000-3,500/sqm/year.

It is forecasted that the existing volume of vacant space shall gradually decrease under the assumption that the current construction pipeline will be limited or lowered, also leading then to a stabilization of market rental rates. In terms of currency it is not assumed in the medium-run that the lease contracts will be switched from RUB- to US$-rents.[147]

[147] c.f. Colliers International Russia (2016): Moscow / Industrial Market Overview H1 2016, Moscow, p.1-3. https://www.colliers.ru - retrieved as of Aug 30, 2016.

Summarized the key market indicators for the industrial real estate sector is as follows:

Key market indicators			
INDEX		H1 2015	H1 2016
Total stock, million sq m		11.3	12.2
Including:	Class A	8.64	9.82
	Class B	2.66	2.36
Completions, thousand sq m		391.6	147 ↓
Take-up, thousand sq m		475.6	420 ↓
Vacancy rate, %		9.7	11.3 ↑
Average rental rate, RUB/sq m/year*		4,200	4,000 ↓
Average sale price, RUB/sq m*		43,000	40,000 ↓

* Here and below rental rates are given excluding VAT, OPEX and utilities, the sale price is net of VAT

Fig. 19: Industrial Real Estate Sector´s Key Market Indicators[148]

5.4 Specifics of Real Estate Project Finance Risks in Russia

The main emerging market real estate project financing risks were invested in detail in chapter 3. Thus, the focus in the following chapter shall be merely on specific *Investment Structure Risks in Russia*.

5.4.1 Key Reasons for Real Estate Investment in Emerging Markets

The following table describes the potential main drivers, i.e. the main motivations not only for investors to go for financing opportunities, but also for banks to accept providing such financing in emerging markets like Russia – notwithstanding the fact that the aggregated risk level is considered to be much higher than in some more developed countries:

[148] c.f. Colliers International Russia (2016): Moscow / Industrial Market Overview H1 2016, Moscow, p.1. https://www.colliers.ru - retrieved as of Aug 30, 2016.

Driver	Explanation
Asset Class Growth	Due to its potential of value appreciation, real estate as an asset in terms of a defensive hedge against inflation and capital market volatility has become more and more important.
Declining Risk Levels	The perception of BRIC risk in relative terms has strongly been reduced for particular investors as the perception of developed economy investment risk has increased - under consideration that risk levels are not static. Drivers for the decline in perceived levels of risk in BRIC countries do refer to stronger currencies, developing legal systems, economic growth, strengthening financial systems as well as increased international integration.
Higher Rates of Return	Real estate returns in BRIC countries can be higher compared to those in more developed countries driven by usually cheaper costs of land and labour and high levels of demand.
Increasing Ease of Investment	Due to more flexible and easier foreign investment requirements and rules, elevated public capital market investment options and an increase of private investment vehicles focusing on BRIC countries, it has become more convenient to invest in such countries.
Portfolio Diversification	Driven by national and global volatility, investors are seeking to diversify their real estate portfolio globally leading to increasing investment allocations to various BRIC countries.
Self-use	More and more investors will seek to enter BRIC markets doing business there and taking the advantages of commercial opportunities as BRIC countries grow in economic importance.

Fig. 20: Key reasons for Real Estate Investment in Emerging Markets[149]

[149] c.f. Bifani Darin (2012), p. xli.

5.4.2 Finance Structure Risks in Russia

Like for all other countries *Credit Risk* or *Counterparty Risk* in Russian project finance transactions is stipulated by the performance of the underlying asset per se, i.e. *„off-balance sheet financing with limited recourse to shareholders/sponsors and a very high level of financial leverage“*[150] implying the importance of a financial soundness of all the counterparties involved. Hence, the contractor´s, product purchaser´s, input supplier´s, and the plant operator´s creditworthiness have to be deeply assessed by the Bank´s Credit Risk Manager.

Access to the Russian real estate market can be provided by

(i) Managing risks through structuring

- Offshore vehicles
- Cyprus and other offshore jurisdictions

(ii) Direct investment structures

- Equity structure
- Debt structure

(iii) Public Capital market investment options

- Securities listed on foreign stock exchanges
- Mutual funds
- Equity

(iv) Private capital market fund structures

- Private equity funds[151]

As the master thesis is focusing on real estate project finance transactions in Russia via loans provided by a typical financial institution, there shall be a deeper look at (i) *Managing risks through structuring* and (ii) *Direct investment structures in terms of debt structures* as follows:

[150] Gatti Stefano (2013), p. 57.
[151] c.f. Bifani Darin (2012), p. 364-372.

5.4.2.1 Managing Risks through Structuring

When doing real estate project financing in Russia, the use of *offshore structures* in countries like Cyprus, Jersey, Guernsey, the Netherlands and British Virgin Islands is very common due to

- *Tax benefits*: Linked to offshore vehicles there can be certain tax upsides (e.g. in terms of double taxation treaties between Russia and the countries as stated above).
- *Investment exit upsides*: Enforceability of exit provisions in the loan documentation and enhancement in terms of marketability to potential 3rd party purchasers.
- *Funding possibilities*: In case the bank is seeking to reduce lending risk, it could be willing to offer more comfortable terms and conditions when using offshore vehicles.
- *Clarity of rights*: Certain rights being crucial for an investor are often unclearly defined and/or set out when using offshore vehicles.

Despite the above listed advantages and possible benefits there are also risks and challenges to be considered when doing real estate project financing in Russia by using offshore vehicles:

- Russian Law is still applicable for key rights linked to onshore real estate implying potential legal and regulatory issues.
- Managing daily operational challenges (e.g. keeping control over the assets) belongs to one of the main issues for foreign investors and banks in Russia implying to have an overall comprehensive onshore operational plan and loan documentation in place including all applicable rights and penalties in case of breaching those rights.[152]

[152] c.f. Bifani Darin (2012), p. 364f.

5.4.2.2 Direct Investment Structures

Direct Investment Structures do refer to *equity structure* issues as well as *debt structure* issues.

In terms of *equity structure* an investor typically holds a minority or majority share in the investment rather than owning 100% of the asset being located in Russia. Sponsors have typically in common to seek for equity contribution at a very low level and as late as possible. Usually the respective level of debt/equity ratio is caused by (i) the level of the project´s economic soundness, (ii) the degree of risk the lender is willing to consent to, and (iii) the prerequisites on the respective markets.[153]

When looking at *debt structuring,* the typical financing structure for a real estate deal in Russia is usually as follows: The investor holds 100% of shares in two holding companies (the "HoldCos") and one financing company (the "FinCo"), whereas the two HoldCos own 99% and 1% of the onshore property company (the "PropCo") in each case. The bank provides the loan to the financing company being located offshore. That financing company further borrows the funds to the PropCo being located onshore.

There is a list of potential issues to which an investor and the Bank providing financing might be strongly exposed to, mainly related to the nature, perfection, potential loss over the assets or loss in terms of priority as well as enforceability of the collateral package. The latter implies that the negotiation for the collateral package is typically done within Russia, therefore being subject to a more defensive nature which is usually more difficult when it comes to enforcing the respective collateral rights onshore. Also crucial to mention is the requirement for a *public auction* in terms of security enforcement in Russia rather than taking immediate control over the assets by further selling them via private sale to 3rd parties.

Amongst the typical collateral package as described under section 4.3.2 the following collaterals are considered to be specific for Russia:

- It is de facto impossible to keep a pledge over accounts according to Russian law as enforcing those pledges cannot be done via an auction. Thus, so-called *direct debit agreements* were introduced. Therefore, a *Power of Attorney*

[153] c.f. Gatti Stefano (2013), p. 138

(PoA) can be closed with a 3rd party by assigning control over accounts to a foreign investor.

- Given partly serious technical problems related to mortgage registration in practice, pledges or rights under lease/rent agreements are also quite questionable in terms of enforcement.
- Using a *cash sweep*, i.e. a PropCo´s onshore foreign currency account to which excess rubles are shifted is also very recommendable as the bank could use those excess cash for debt repayment in case of any liquidity shortage. The necessity of which is also driven by related risks accompanying excess cash in accounts onshore and by the fact that maintaining an account offshore is de facto impractical for properties being located in Russia.
- Bank guarantees or personal guarantees provided by the ultimate beneficial owner (UBO) are commonly used.
- *Pledges of employer´s rights* to be negotiated for the construction stage could be also considered, but the ability for successful enforcement is quite doubtful.
- Having a *mortgage on the real estate property* in place is a prerequisite when providing financing for Russian real estate transactions from a bank´s perspective. Thereby the risk in terms of collateral perfection has to be considered. As long as the mortgage is not registered it is considered to be invalid. Similar is true when seeking for pledging lease rights under the respective lease agreements implying the requirement to provide a respective notice to each tenant up-front.

With regards to the probability of a successful enforcement, a Bank´s Credit Risk Manager has to ensure that collateral rights onshore and offshore are in place in the best case. Collateral rights onshore do imply a kind of protection from other possible onshore lenders. Collateral rights offshore can help in terms of reloading the enforcement process.[154]

[154] c.f. Bifani Darin (2012), p. 370-372.

6 Concluding Remarks

The role of Credit Risk Management in Banks has developed far beyond simply identifying risks. The central figure of a Bank´s Credit Risk Management is the so-called *Credit Risk Manager* whose main job profile is characterized by challenges like avoiding credit losses to the highest possible extent and undertaking emergency and corrective actions in case losses are already incurred. So it is not only about the Bank´s existing portfolio in terms of already financed transactions which is subject to a Credit Risk Manager´s ordinary, tight and careful monitoring, but also about all upcoming new transactions which are subject to the Credit Risk Manager´s assessment and recommendations for financing.

Real estate project or *development financing* comprises a very intensive process in terms of complexity and related costs for the Bank which provides the respective loan.

Nevertheless, out of these financing structures the Bank could profit from following advantages when committing to a project finance structure like

- risk sharing between the Bank and the customer,
- tailoring of repayment schedule in accordance with project cashflows and
- avoidance of undesired *corporate risk* on the Bank´s portfolio.

To specify the most important characteristics, real estate development or project finance refers to a *ring-fenced* economic project where the source of repayment of a project loan is predominately based on the cashflows generated by the project itself. Hence, the borrower is constituted by a special purpose vehicle implying that the Bank´s receivable is established towards an entity to specifically finance and operate the project thereby acting as owner of the financed asset. Very important to be considered by a Credit Risk Manager in that respect is the assessment of the sponsor´s track record and quality per se. The transaction structure will be set out with non- or in the best case limited recourse to the sponsor and/or shareholder. There will be a risk sharing between the Bank, the sponsor and other project stakeholders. Thus, the contractual support to be provided by the project entities/parties is a crucial element to be considered by the Bank´s Credit Risk Manager. Especially during the construction stage the limited recourse to the

sponsors is a key risk mitigation, e.g. by negotiating for sponsor´s cost overrun guarantees, completion guarantees, etc.
Summarized, the cashflows from the project serve as main source of repayment implying first priority for the Credit Risk Manager to be considered in terms of due diligence when evaluating the project per se. Contractual arrangements provide the Bank with significant control over the assets and revenues in terms of cashflows.

So all in all, a Credit Risk Manager´s job is seeking to protect the Bank from outfall or default risk in the light of all the various risks resulting from transactions already being booked as a part of the Bank´s portfolio or which are to be newly financed. What one should always bear in mind is that each *Bank* as an organization consists of individuals acting as main drivers in the back. Thus, it is also a Credit Risk Manager´s job not only to protect the Bank´s decision-makers, but also all the individuals when providing Credit Risk expertise by issuing an overall comprehensive *Credit Risk Statement* addressing all the related risks and respective mitigations as second opinion to the Board´s credit decision implying the necessity to have the potential *recovery* forecasted and potential *exit options* preferably under amicable circumstances for the Bank investigated - to the most possible extent.

The table set out in Appendix II represents an overview of all the peculiarities of the overall due diligence requirements for a Bank´s Credit Risk Manager comprising the identification, recognition and assessment of all the risks related to real estate project finance, especially when it comes to providing financing for projects in emerging markets implying elevated risks compared to projects in more developed markets. Appendix II further provides a kind of new guidance on how to mitigate all the risks by suggesting various strategies, requirements, recommendations and conditions about which each Credit Risk Manager should be aware of in order to reduce the outfall risk for a Bank being engaged in emerging markets´ real estate project financing.
In any case it is worth to mention that a certain level of ultimate residual risk will always remain for the Bank which provides the financing.

6.1 Future Prospects

The *unpredictability of the future* remains as natural limitation constituting the main risk and challenge for all involved parties being crucial for real estate project financing structures, and hence also for a Bank´s Credit Risk Manager by referring again to the importance of an overall and reliable due diligence being essential in the light of all the peculiarities related to the real estate market.

Additionally, generally accepted challenges like information overload or restriction, the utopia of homo oeconomicus and the limited anthropogenic rationality do basically remain in terms of natural boarders.

The traditional role of a Credit Risk Manager is *"to control the business units and avoid losses"*.[155] This simple definition of a Credit Risk Manager´s main task automatically assumes some *defensive* position in terms of seeking to protect the Bank, whereas the Business Lines do usually seek for optimizing profits. Thus, the professional collaboration between the Credit Risk and Transaction Manager might be often quite tense.

Assigning such a defensive role to a Credit Risk Manager should not be misinterpreted in a way that one could assume it is "restricted". Basically, it is *expected* that a Credit Risk Manager is actively involved in the entire real estate financing process right from the beginning by making suggestions, identifying other options, providing insights and coming up with Credit Risk recommendations to mitigate the identified risks and thus helping Business to better generate value or profit for the company.[156] *"Good business links returns to risks, while good risk management links risks to returns."*[157]

Prerequisites for offering risk protections, flexible funding arrangements and lower lending costs over time do all ask for having the right quantitative Risk Management instruments like sensitivity analysis, probability simulations or other comparable techniques in place, also in order to control the rate of interest on debt finance. As those quantitative Risk Management methods are subject to partly strong vulnerability as soon as structural changes are going to happen, it is beyond all questions that future

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[155] Koenig David R. (2004), Volume III, p. 208.
[156] c.f. Koenig David R. (2004), Volume III, p. 208.
[157] Koenig David R. (2004), Volume III, p. 209.

improvement regarding the development and set-up of applicable and less sensitive quantitative Risk Management techniques needs to be envisaged.
Thereby it has to be also noted that financing might require more complex structures, especially when it comes to real estate project financing in emerging markets. A prerequisite therefore is not to apply for solutions which were already once fruitful to all upcoming financing structures, but to always continue working on *better* solutions. Overall, it has to be noted that each real estate transaction in terms of structure should be basically considered as kind of custom-made whereas the importance of the Credit Risk Manager´s qualitative input is underpinned again.
Qualitative aspects by detailing and ranking the various real estate development project risks are very crucial to be considered *in addition*. And in that respect the expertise of the Bank´s Credit Risk Manager is and will remain in great demand as it is always about the Credit Risk Manager who has to understand the markets, the mechanisms and the instruments traded. Due to a permanent change in regulatory, legal and market requirements, it is a continuing learning process when a Bank´s Credit Risk Management is supposed to operate successfully.
Economic feasibility in terms of profitability and cost-effectiveness leads to another generally applicable limitation for Banks, i.e. they need to weigh their individually justifiable expense for the development and maintenance of Risk management systems with the benefit in terms of output according to fundamental cost-benefit considerations. With other words: existing opportunity or shadow costs need to be accommodated.
In their very own interest each Bank is seeking for an overall and in-depth analysis by its Credit Risk Management to avoid lost gains and potential reputational risk in case of an outfall of one of its projects financed. Theoretically, an overall and detailed Credit Risk analysis would be manageable and should be strongly focused on. On the other hand, it seems that Banks are more and more exposed to meet all regulatory requirements in parallel. These regulatory requirements do currently change quite quickly, i.e. the Bank needs to ensure to have sufficient and professional human resources available in order to be able to address all requirements as quickly as possible. It is not only about the rapidness of regulatory development, but also the importance of which meaning that Banks have not only to monitor it, but to implement all the changes from a practical view as well in order to comply with them

in the future. Given a generally low number of professional Credit Risk Managers on the market, their respective market value has strongly increased in the recent past leading again to cost issues for the Bank.
Upcoming regulatory changes which the Banks have to scope with in the nearest future are related to topics like Basel IV constituting in parallel big challenges for them. General motivations for a revision of the current Standard Approach ("SA") for Credit Risk and the publication of two Consultative Documents ("CP´s") by the Basel Committee, i.e. BCBS 301 and 347, are driven by shortfalls of the current Standard Approach: (i) insufficient risk sensitivity implies the aim to balance risk sensitivity and complexity, (ii) dependence on external rating stipulates simple feasibility instead of drawing in internal modelling, (iii) outdated calibrations requires a cutback of national discretions in order to increase comparability in capital requirements and (iv) national discretions ask for introduction of mandatory capital floors based on revised Standard Approach Framework.
Main impact out of the envisaged changes by Basel IV shall refer indeed to the Banks´ real estate portfolio. E.g. in case the following operational requirements like (1) finished property, (2) legal enforceability, (3) claims over the property, (4) ability of the borrower to repay, (5) prudent value of the property and (6) required documentation are not met for treatment as real estate secured, the Bank has to consider a risk weight of 150%.[158]

All in all, the main task, but also biggest challenge for the future implies to protect the Bank from default risk to the maximum possible extent by identifying and mitigating the full set of risks possibly arising from bank loans provided for real estate project finance transactions - with the Bank´s Credit Risk Manager playing a vital role when it comes to the premise to "*turn the bad account to a good one.*"[159]

[158] c.f. PWC (2017): Overview Basel IV: An introduction to the new regulations, p. 6-26. www.pwc.at - retrieved as of Jan 27, 2017, p. 6-26.
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Appendix I

Term Sheet issued by the Bank

[PROJECT NAME]

INDICATIVE TERMS & CONDITIONS

SUBJECT TO CONTRACT

Preliminary Proposal – for the purposes of discussion only
This is an indicative term sheet provided for discussion purposes only and may be amended, superseded, or replaced in its entirety by subsequent term sheets or other summaries of terms and conditions. All proposed structures, including any security arrangements, are based on the information provided to [Lender´s name], are subject to further due diligence and can be changed, adjusted or replaced entirely or in part. All terms are subject to contract, are not intended to and do not constitute an offer or commitment or representation by [Lender´s name] or any of respective affiliates. Furthermore, any transaction would be subject to, among other things, internal approvals, completion of satisfactory due diligence, tax, legal and regulatory advice and an agreed term sheet and commitment letter and entry into definitive legal documentation satisfactory to the Lender. All rates quoted in this term sheet are indicative and are valid as of this term sheet's date. The rates can differ from final transaction rates due to market fluctuations.

Indicative Terms and Conditions
General Terms

Type:	Secured term loan facility (the "**Facility**") to be provided under facility agreement to be entered into between the Lender(s) and the Borrower(s) ("**Facility Agreement**")
Lender:	[Lender´s name and/or its subsidiaries / affiliated entities]
Facility and Security Agent:	[Lender´s name and/or its subsidiaries / affiliated entities]
Borrowers:	*Facility 1:* [#] Property Companies: [Properties´ names], i.e. special purpose vehicles acting as the owners of the Property (the "**PropCos**"), [•] % held by the Holding Companies *Facility 2:* [#] Holding Companies: [Holdings´ names] (the "**HoldCos**")
Holding I	[Holding´s name] ([•]% owner of HoldCos)
Holdings II	[Holding´s name] ([•]% owner of Holding I)
Învestor/	[Investor´s name]

Developer:	
Guarantor:	Facility 2 - [Guarantor´s name]
Properties:	Land located at [address, country] **Land plots**: [#] land plots with a total area of [•] sqm Areas: [•] Cadastre numbers: [•]
Project:	Acquisition, development and construction of a [real estate property´s name], [address, country], with a gross area of approx. [•] sqm. The Project is split in two Phases: Phase I: [purchase of the Properties and Project preparation] Phase II: [construction of the Project]
[Lender´s] Group:	[Lender´s name] and the companies which are included into its [IFRS] financial statements under direct consolidation method
Facility Terms	
Amount:	Facility 1: Up to EUR [•] M Facility 2: Up to EUR [•] M Total: Up to EUR [•] M; i.e. [•]% of the Total Phase I Costs
Currency:	[EUR]
Use of Proceeds:	Phase I financing of (i) the acquisition of the Properties, (ii) development/project preparation costs and (iii) financing costs
Total Phase I Costs	Up to EUR [•] M
Investor's Equity	Min. EUR [•] M or [•] of the Total Phase I Costs to be paid up-front
Drawdown:	The Facility shall be drawn during the Availability Period in one amount
Availability Period:	From Closing Date until [dd/mm/yyyy]
Closing Date:	Date on which the Facility Documentation is duly signed by the Facility Agent and the Borrowers
Maturity Date:	[dd/mm/yyyy]
Interest Rate Periods:	[•] months
Interest Payment Date:	[Last business day] of each Interest Rate Period
Interest Rate:	[• month Euribor] + Margin p.a. (actual / 360)
Margin:	Facility 1: [•]% p.a. Facility 2: [•]% p.a.
Arrangement Fee:	[•]% of the Facility Amount
Commitment Fee:	[•]% p.a. during Availability Period
Repayment Schedule:	The Facility shall be repaid on the Maturity Date (at the latest) from the proceeds under a financing for Phase II (still to be structured and arranged).
Security:	The security package shall include typical security for the facilities of this

	nature including, but will not be limited to: Facility 1 a) Mortgage deed and priority notice over the Properties within [•] days after closing of the acquisition of the Properties b) Pledge of 100% of present and future shares of all obligors c) Assignment of rights under lease contracts with tenants d) Assignment of rights under the project agreements e) Accounts shall be held with [Lender´s or affiliate´s name] and shall be pledged in favour of the Lender f) Other security which may be requested by the Facility Agent and specified in the transaction documentation g) Sponsor Support Agreement by the Investor h) Commitment Letter by the Investor i) Subordination of intra-group indebtedness and shareholder loans (if any) Facility 2 j) Pledge of 100% of present and future shares in the Borrowers and Holding I k) Assignment of rights under any project agreements (if any) l) Accounts shall be held with [Lender´s name] (or an affiliate) and shall be pledged in favour of the Lender m) Other security which may be requested by the Facility Agent and specified in the transaction documentation n) Guarantee provided by the Investor o) Subordination of intra-group indebtedness and shareholder loans (if any)
Sponsor Support Agreement:	Pursuant to a Sponsor Support Agreement, the Developer will agree to make additional equity contributions from time to time to the Borrowers to pay all outstanding amounts under this Facility which cannot be recovered by the Lender in case [Lessee´s name] withdraws from the lease contract according to [clause] and opts to draw clause [•] of the purchase agreement (VAPA).
Commitment Letter	The Commitment Letter serves two purposes: 1. To cover any cost overruns of the project over the costs estimated as part of the Stage Zero report for the life of the Facility (including Facility extensions/refinancing due to Facilities not being repaid by the Maturity Date) 2. To cover the Developer's commitment to provide the additional equity for and in Phase II of EUR [•] M in the form of equity injections or shareholder loans to be granted to the Borrowers under Facility 1. The Commitment Letter is to be irrevocable, unlimited in respect of cost overrun coverage unless such coverage is replaced under a turnkey contract. Amounts will be payable as equity contribution into Project (for the avoidance of doubt subordinated to Facilities 1 and 2) immediately upon an event of default occurring during the life of the Facilities, or, in the case of the EUR [•] M of additional equity, upon the Facilities being extended/refinanced beyond the Maturity Date. No other conditions should prejudice fulfilment by the Developer of its obligations in respect

<table>
<tr><td></td><td>of the equity injection. The Commitment Letter will come into force in two stages: The cost overrun coverage (Purpose 1, as outlined above) will be in place upon signing of the Facility. The additional equity coverage (Purpose 2, as outlined above) will be in place from [dd/mm/yyyy].</td></tr>
<tr><td>Guarantee:</td><td>The Guarantor shall irrevocably and unconditionally guarantee to the Lender punctual performance by the relevant Borrowers of all of their obligations under the Facility 2 [and securing obligations in particular under the item [•] of the Call Option Contract].
The Guarantee shall procure the following protections:
- Cross default with other unsecured and secured Facilities
- Covenants on the Guarantor</td></tr>
<tr><td colspan="2">Other terms</td></tr>
<tr><td>Representations and Warranties:</td><td>The Facility Agreement will contain Representation and Warranties customary for a transaction of this nature that the Facility Agent may reasonably request and which will be specified in the Facility Documentation, including, among others, with respect to its corporate status, its assets, including, but not limited to, the Properties.</td></tr>
<tr><td>Conditions Precedent:</td><td>The Facility will be subject to, among others, the following conditions precedent (each in form and substance satisfactory to the Facility Agent, acting reasonably):

(i) Satisfactory completion and execution of all Facility related documentation (including perfection of Collateral Package, except for Condition Subsequent)
(ii) Presentation of the signed and valid purchase agreements for the Properties and the shares in the PropCos
(iii) Presentation of the Valuation Report confirming the current market value of the Properties of min. EUR [•] M and a future market value upon completion of EUR [•] M in form and substance satisfactory to the Lender
(iv) Presentation of an environmental report
(v) Receipt of legal opinions in form and substance acceptable to the Facility Agent, in its sole discretion
(vi) Presentation of latest financial reports of the Borrowers, the Holding I, the Holding II and the Investor/Developer
(vii) No material adverse change, in the Facility Agent's opinion, occurring in the Borrowers' businesses
(viii) No Event of Default or potential Event of Default having occurred
(ix) Duly signed utilisation request from the Borrower
(x) Receipt of all necessary approvals, licenses and permits by the Borrowers (mainly valid planning and construction permits)
(xi) Provision of a Stage Zero Report acceptable to the Lender (CP to funding)
(xii) Presentation of duly signed, valid and binding lease contracts and infrastructure agreement with [Lessee´s name] satisfactory to the Lender covering [•] % of the leasable area and providing for an annual secured lease of EUR [•] M</td></tr>
</table>

	(xiii) Presentation of infrastructure agreement, assignment of planning contracts and trust agreement (xiv) Payment of Arrangement Fee The Borrowers will make available to the Lenders all necessary due diligence information including, but not limited to: (xv) Constitutional documents and corporate authorities of the Borrowers (xvi) Evidence required by the Lenders for KYC ("Know Your Customer") purposes (xvii) Group structure chart duly signed by the Borrowers Other conditions precedents customary for a transaction of this nature that the Facility Agent may request and which will be specified in the Facility documentation.
Conditions Subsequent to Phase I	The Facility will be subject to, among others, the following conditions subsequent (each in form and substance satisfactory to the Facility Agent, acting reasonably): (i) Mortgage deed and priority notice over the Properties within [•] days after closing of the acquisition of the Property (ii) Turnkey contract to be agreed by the date falling [•] months after the start date of Phase I or an later start date of Phase II as agreed between the Developer and Lessee
Property Undertakings	Customary for a transaction of this nature, including but not limited to: - Provision of reasonable access to the Property upon prior notice to the Borrowers - Property has to be kept insured at all times during the term of the Facility with insurers and risks covered being acceptable to the Lender - No amendment of the existing lease contracts and infrastructure agreement without prior written consent of the Lender - Procurement by the Borrowers that the initial average weighted life of lease contracts will be not less than [•] years - Other property undertakings which the Facility Agent may request and which will be specified in the Facility documentation
General Undertakings:	The Facility Agreement will contain undertakings customary for a transaction of this nature that the Facility Agent may request and which will be specified in the Facility Documentation, including, but not limited to obligation to receive the prior written consent of the Lender for the following transactions: - No provision of loans, credits and other form of financial accommodation, including guarantees and sureties - No payment of dividends or payments under shareholder loans - No new debt on the level of all obligors, except for permitted and subordinated debt/shareholder loans that are considered quasi equity - No change of ownership in all obligors

	- No legal proceedings - Positive Net Asset Value (NAV) of all obligors - Returns of VAT (if any) shall be routed to the accounts with the Lender and shall be used for prepayments of the Facility - Form and material content of the lease contracts, further infrastructure agreements and the project agreements (including turnkey contract) to be acceptable to the Lender - any overrun of the Total Phase I Costs to be borne by the Investor through additional equity contribution via an unconditional and irrevocable agreement Exact wording will be based on standard language and agreed at Facility Documentation stage.
Information Undertakings:	The Facility Agreement will contain Informational Undertakings customary for a transaction of this nature, including but not limited to - Annual financial statements prepared in accordance with local GAAP; accounting firm to be acceptable to the Lender - Semi-annual management reports - Monthly progress reports on development of the Project - Notification of any Event of Default or potential Event of Default - Any further material information relating to the Project and Properties as may be reasonably required by the Lender
Additional Mandate:	During the term of the Facility Agreement the Borrowers shall provide and shall ensure each of its affiliates participating in the Project provides to the Lender and [Lender´s name] Group's subsidiary banks the right of first refusal for the provision of the services in relation to the arrangement and/or financing of the Phase II of the Project.
Stage Zero Report	A report covering budget, permits, technical feasibility and timing on project construction prepared by a professional surveyor acceptable to the Lender confirming inter alia project construction budget until completion, time required to complete and funding and construction schedules in form and substance acceptable to the Lender.
Valuation Report:	Valuation report to be provided prior to the first drawdown (or at any time while an Event of Default is continuing). The independent appraiser, to be chosen from a [Lender´s name] pre-approved list of appraisers, shall be appointed and chosen by the Lender at the Borrowers' cost. The property valuation, which shall determine the current and future (upon completion) market value of the Properties ("**Market Value**"), will be based on international valuation standards and Net Operating Income generated by the Properties and shall be based on an instruction letter to be agreed in advance between the Lender and the Borrowers.
Events of Default:	The Facility will be subject to Events of Default, customary for this type of financing that the Lender may reasonably request and which will be specified in the Facility Documentation. Events of Default will include a breach of any material condition under the lease contract with [Lessee´s name].
Taxation:	All payments must be calculated and made without deduction or withholding for any tax. Standard bank loan gross-up, indemnity and tax credit provision will apply. Exact wording to be defined at documentation

	stage including qualified Lender´s concept.
Fees and Expenses:	All legal and other Facility Agent's advisors' and providers' fees incurred in connection with negotiation and execution of the Facility Agreement and other transaction documentation (including construction surveyor and appraiser) shall be for the account of the Borrowers and/or the Holding I. The Lender shall provide the Borrowers with an estimate of such expenses prior to engagement of advisors.
Transferability:	The Facility will not be transferable by the Borrowers. At any time the Lender may freely assign, transfer and sub-participate, wholly or partially, its respective rights and obligations under the Facility and Security Documentation to any third party subject to, in case of a transfer to a party other than an affiliate of the Lender, prior written information by the Lender to the Borrowers at least 6 weeks prior to the intended assignment, transfer or sub-participation providing the Borrowers with the option to identify and name potential financing parties.
Law and Documentation:	Documentation according to [name of the country] law.
Confidentiality:	This term sheet is intended for the exclusive use of the Borrowers and shall not be disclosed by it to any person other than their legal and financial advisors for the purposes of this transaction unless prior written consent of the Lender has been obtained.

On behalf of the Borrower(s)

On behalf of the Lender(s)

Appendix II

Identified Real Estate Project Finance Risks, required Due Diligence & recommended Mitigations

Real Estate Risk Category	Risk Description	Required Due Diligence & Mitigants to be recommended by the CRM
Project Risks ***at project and country level***	*Fundamental Project Viability Risks* ▪ Intrinsically weak market theory ▪ Market theory does not support the project ▪ Sensitivity of project return to market theory errors	*Due Diligence* ▪ Nature of real estate project ▪ Level of project´s target IRR and time frame ▪ Requirement of change in regulatory conditions to meet target IRR ▪ Localization of target demand for project, i.e. in home country or abroad ▪ Competitive factors of the project ▪ Ability of competition of the target project ▪ Nature and level of key risks to the market theory *Mitigations* ▪ Break-down of applied project into market hypothesis ▪ Test of hypothesis basis

Real Estate Market Risks	*Market (Demand, Supply, Competition), Off-taker, Purchaser Risk* ▪ Risk that the project output cannot be sold in the required quality or at the right price to the market ▪ Preference for certain developers by local government over others (e.g. in-transparent land auction procedures and investment terms) ▪ High volatility of key real estate demand and supply drivers ▪ Quick amendments and changes in real estate market policies by local government driven by political, economic and social issues on local level ▪ Exceeded marketing costs compared to overall marketing budget ▪ Underestimation of purchase or lease payment defaults due to lack of financial due diligence on buyers and/or lessees ▪ Delay in project sales and hence cashflows due to delay in marketing process per se ▪ Insufficient commercialization concept per se ▪ Targeting inappropriate end-users ▪ Setting sale or lease/rent levels at inappropriate levels	*Due Diligence* ▪ Focus on e.g. vacancy rates in existing properties when *forecasting demand* in short-run; using of e.g. regression analysis when forecasting demand in long-run ▪ *Forecasting supply* to be based on level of demand, kind of process for new construction approvals, zoning law and tax incentives provided by government policy for real estate development, potential of infrastructure supporting real estate developments, level of land being available for construction in the specific markets ▪ Consideration of *number of competitors* in the subject market and assessment of the competitors´ general target markets, business strategy and strategy in terms of execution ability ▪ Consideration and assessment of *level of competing projects* in terms of tenant mix, certification as “green” building, management quality, construction quality, age, layout. amenities, facilities and/or services in surroundings, location and access

		Mitigations ▪ Reliable and extensive market surveys ▪ Long-term off-take and lease agreements with creditworthy counterparties covering a specified portion of the capacity of the project ▪ Hedging agreements ▪ Capital structure in terms of low portion of debt financing in order to allow full debt service also in case of difficult market environment ▪ Control over disbursements/cash-outflows based on achieved/contracted revenues
Development Risks	*Risks related to the underlying Land per se* ▪ Subject to litigation ▪ Any other liens on the property ▪ Encumbrances with respect to the land by 3rd party ▪ Any other land use rights by 3rd party ▪ Application of zoning rules and regulations ▪ Subject to natural disasters (e.g. earthquakes, floods etc.) ▪ Environmental damage suffered potentially exposing the purchaser of the land to legal liability ▪ Nature of physical and natural structure ▪ Ability to reduce level of removement costs	*Due Diligence and Mitigations* ▪ Overall Legal Due Diligence comprising analysis in terms of potential litigation, other liens on the property, potential encumbrances with respect to the land by 3rd party or any other existent land use rights by 3rd party ▪ External environmental reports issued by respective geo-mechanical and geo-technical experts ▪ Compliance with relevant environmental and regulatory requirements ▪ Tight monitoring of the project´s operations within required environmental controls

	▪ Suitable for carrying out the project in terms of space and location ▪ Area surroundings possibly restricting project realization ▪ Actual or planned development in the area surrounding affecting the neighbourhood, land access routes, land values etc. ▪ Existence of structural defects of the land	
	Regulatory/Licensing/Permit Risk regarding land acquisition/construction approvals ▪ No permits/authorisations required to carry out the respective roles ▪ Engagement in fraud or comparable bad acts to get permits, to pass inspections etc. putting the investor to *reputational* and *legal liability risk*	*Due Diligence and Mitigations* ▪ Requirement to have construction permission already in place ▪ Existence of land title issues ▪ Availability of land title insurance ▪ Required steps for land acquisitions, land ownership rights registration and obtaining zoning approvals/changes to zoning approvals to be in strict compliance
	Regulatory/Licensing/Permit Risk regarding construction process ▪ Building deviates from the plan ▪ Delay in construction completion ▪ Construction shortcomings/defects or other quality issues ▪ Construction budget overrun; significant	*Due Diligence and Mitigations* ▪ Perfect understanding of the relevant legal and regulatory framework in the host country and its impact on project completion ▪ Parties involved in construction process ▪ Typical construction models (contractor, contractor/sub-contractor etc.)

	increase of construction costs in case of inflation or poor infrastructure for transportation purposes of the construction material e.g. ▪ Potential significant jump of labour costs and depletion of labour markets in case of high degree of construction demand ▪ Risk of little recourse in case of project completion delay or cost overruns ▪ Building safety risks when using substandard construction materials in order to cut costs e.g. ▪ Inappropriate behaviour of construction parties endangering others on the construction area ▪ Treatment of employees by breaching labour law duties putting the investor and/or developer to *reputational risk* ▪ Violation of environmental laws ▪ Risk of not obtaining project inputs in the required amounts/quality or at the right price	▪ Typical bidding process and rules for tender ▪ Requirement for the construction parties´ licences ▪ Availability of standard guarantees and/or bond ensuring construction completion ▪ Standard clauses to protect against construction-related shortcomings and defects ▪ Process of contracting sub-contractors ▪ Steps to be used to project and control construction costs ▪ Existence of any labour law issues regarding contractor and sub-contractors ▪ Existence of environmental issues related to construction process ▪ Availability of any dispute resolution procedures
	Conflict of interests Sponsor/Shareholder	*Due Diligence and Mitigations* ▪ Experienced 3rd party operations and maintenance contractors on a fixed cost basis ▪ *Arm-length* contracts ▪ Complementary shareholding group ▪ Subordination of shareholder loans and payments under operating/supply contracts

		▪ Disclosure of intragroup transactions/trades
	Raw Material/Supply Risk	*Due Diligence and Mitigations* ▪ Geological survey reports ▪ Market surveys ▪ Creation of escrow fund to provide liquidity in case of cost overruns ▪ Recognizing these factors in the financial projections in order to re-assure the existence of sufficient cashflows to meet operating costs and debt service commitments ▪ Long-term supply agreements with creditworthy counterparties to ensure unconditional supply (e.g. *put-or-pay agreements, throughput agreements*) ▪ Minimization of mismatch supply and purchase contracts, either via contract or hedging
	Technology/Obsolesce Risk	*Due Diligence and Mitigations* ▪ Contractor being experienced with technology, i.e. strong operators ▪ Proven technology confirmed by independent advisors ▪ Manufacturers´ warranties
	Regulatory/Licensing/Permit Risk related to Project Design	*Due Diligence and Mitigations* ▪ Perfect understanding of the relevant legal and

	▪ Design does not address the target market ▪ Exceeded design costs in relation to overall project cost budget ▪ Exposition of the building to external risks caused by design matters ▪ Creation or contribution to structural defects ▪ Non-compliance with regulations to be applied	regulatory framework in the host country and its impact on project completion
	Sponsor Risk	*Due Diligence and Mitigations* ▪ Selection of financially healthy and strong sponsors ▪ Upfront equity funding arrangements and/or bank guarantees ▪ Experienced sponsors with excellent track record
	Structural Risks	*Due Diligence and Mitigations* ▪ Usage of Turnkey Contract addressing potential gaps appearing in the contract structure and disputes between subcontractors ▪ Contractor´s guarantee
	Construction, Completion, Cost Overrun Risks	*Due Diligence and Mitigations* ▪ Selection of suitable and strong sponsors, project managers and EPC Contractors with strong financials and track record ▪ Involvement of independent engineer on behalf

		of the Bank for due diligence reporting, monitoring project´s engineering and construction realization, monitoring operations management, assisting during completion stage ▪ Close monitoring of progress towards completion by sponsors and debt investors through their advisors ▪ Agreement of fixed price turnkey EPC Contract including performance bonds ▪ Completion guarantees ▪ Sponsor support e.g. in form of standby equity commitments from the Sponsors
	Insurance Cover Risks	*Due Diligence and Mitigations* ▪ *Contractor Liability Insurance* insuring contractors against personal injury and/or claims against property damage ▪ *Construction/Builder´s Risk Insurance* protecting the building during the construction stage; can include protection against fire, wind and lightening ▪ *Property Insurance* against different risks to property once completed; can include fire, floods, earthquakes ▪ *Property Management Insurance* covering various risks to which a property manager could

		be exposed to in terms of legal liability; can refer to tenant discrimination, errors, omissions etc. ▪ *Lender´s Mortgage Insurance* protecting Lenders from financial losses in case the mortgagor defaults on its contractual obligations under the mortgage followed by non-recovery of the Lender´s costs after foreclosure. ▪ *Non-payment Risks Insurance* covering damage for the SPV caused by political or business reasons; mainly related to medium- and long-term receivables, leasing contracts, documentary credits ▪ *Investment Risks Insurance* protecting SPV against currency inconvertibility risks, expropriation without compensation, war etc. ▪ *Contract Frustration Risks Insurance* against wrongful drawing of guarantees, failures to deliver parts being functional for the project implementation ▪ *Political Risks Insurance* covering confiscation, expropriation, and nationalization, forced removal of the venture, transfer risks, host government´s refusal to repurchase the

		structure, unilateral rejection of contracts, wars etc. ▪ *Collateral Deprivation Risks Insurance* protecting the SPV against risk of asset loss, failure of the concession authority to repurchase the structure ▪ *Transfer Risks Insurance* covering risks of failure to retransfer investments back to the home country
Operational Risks	*Operational Risks* ▪ Fundamental organisation issues ▪ Business plan execution issues ▪ Ongoing operational matters ▪ Selected issues ▪ High volatility of revenues and costs ▪ Project subject to internal and/or external fraud ▪ Project subject to damage of the environment and/or threats for the health and safety of people ▪ Shortages of qualified labour force; peaks in labour costs ▪ Limited insurance protection for key operational risks	*Due Diligence* ▪ Business strategy, executive structure, organisational structure ▪ Financial, Accounting, Risk Management, Human Resource and Legal practices ▪ Deal sourcing, analysis procedures, structuring and execution ▪ Market and project 3rd party selection and oversight ▪ Performance metrics and reporting ▪ Strategic business decisions, required filings, security issues ▪ Confidentiality and conflict of interest policies *Mitigations* ▪ Working out a clear set of operational rules and procedures covering all key operational

		elements ▪ Long-term management contracts with experienced operating company which ensures efficient operation of the completed projects and access to spare parts if applicable ▪ *Fixed-price* or *pass-through contract* ▪ Service and technical assistance agreements ▪ Business interruption insurance
Business/Strategic Risks	*Business/Strategic Risks* ▪ Any risk potentially arising in the operating stage of a business ▪ Risks arising from language and cultural barriers	*Due Diligence* ▪ At which level sale and rent prices should be fixed? ▪ Initiation of eviction proceedings against non-payment of tenants? ▪ Provision of rent concessions under certain market conditions? ▪ Engagement of 3rd party companies for business plan goal achievements? *Mitigations* ▪ Ensuring that all business strategic decisions are subject to investor oversight at committee or shareholder level at least to some extent ▪ Establishment of a framework, where strategic issues shall be placed to address market asymmetries in terms of information

Investment Exit Risks	*Liquidity Risk/Enforcement Risk* ▪ High level of bureaucracy and/or dividend restrictions may lead to difficulties in terms of recovery of the funds ▪ High enforcement risk of put rights or forced *initial public offerings* (IPOs), i.e. of contractual provisions guaranteeing investment exit	*Due Diligence* ▪ Consideration and assessment of contentious versus non-contentious situations whereas the latter requires a clear understanding of equity dividend and loan repayment rules and limitations ▪ Key consideration of return maximisation *Mitigations* ▪ Exit options with underlying calculations to be clearly documented in the loan contract ▪ Exit options that follow the project and local party economic realities ▪ Exit options to be consistent with local business practice ▪ Exit options to be built after return goal has been met or in case of highest chances to meet the goal for return ▪ Constant evaluation of the return/risk relationships ▪ Assessment of ability to generate sufficient cash to fund major maintenance reserve funds ▪ Perfect understanding of the relevant legal and regulatory framework in the host country and its impact on project completion

Political Risks	*Political Risks* ▪ Restriction on project dividends or repatriation of funds to the country of the investor due to political reasons ▪ Material delay; refusing necessary project approvals, permits and inspection certificates due to political reasons ▪ Unfair preference for an investor´s competitor of deprivation of an investor from an investment´s economic value due to the prejudicial application of existing laws or due to an enactment of new or amended laws ▪ Deletion of expected investment return rates due to significant time and cost of the investment process in case of being exposed to a too high degree of bureaucracy ▪ Difficulties and intensive capital requirements in medium- and long-term investment environment forecast due to unstable political environment ▪ Confiscation of an investor´s physical or financial assets without pre-warning and/or compensation ▪ Provision of project approvals based on illegal payments or the granting of other favours driven by an environment showing high degree of	*Due Diligence* ▪ Current local and national political environment, also in terms of volatility ▪ Potential change to local and national political environment ▪ Potential acts of political risk against foreign investor *Mitigations* ▪ Perfect understanding of the political drivers in the land ▪ Importance of synchrony between investment goals thereby prevailing political flow ▪ Break-down of investment into discrete components ▪ Follow political developments in the media if reliable ▪ Maintenance of relationship with professional advisors thereby soliciting their opinion serving as a kind of early warning signal ▪ Maintenance of relationship with relevant local political entities ▪ Track record of notable changes in governmental officials and/or bodies ▪ *Political Risk Insurance* covering losses out of an incorrect taking of the insured´s property or

	corruption ▪ Political regime change ▪ Changes in government´s compositions ▪ Regulatory changes ▪ Trade and investment policy changes ▪ Corruption ▪ Expropriation ▪ War or other political dissents ▪ Sovereign defaults etc.	other political event negatively affecting the investment value through specialized private sector insurers or agencies (e.g. MIGA or ECAs) ▪ *Government Support Agreements* to provide guarantees on key contracts, to create conditions in order to mitigate possible currency crisis adversely influencing the convertibility of debt service and repatriation of dividends, to lighten the SPV´s operational capacity, to develop favourable institutional conditions ▪ Transaction structures that reduce the country risk (e.g. exports of key products and direct payment of international off-takers to the borrower´s accounts with the project finance lender abroad) ▪ Involvement of the local shareholder ▪ Co-financing with Multilateral Institutions (e.g. EBRD or IFC) ▪ *Political Force Majeure* (e.g. war, civil unrest) *or Acts of Goods (e.g.* earthquakes, floods) to be covered through specialized insurances
Macroeconomic Risks	*Macroeconomic Risks* ▪ Degree of a country´s integration in the world	*Due Diligence* ▪ Extracting as much information as possible

	economy ▪ GDP growth rates, inflation rate, unemployment rate ▪ Fiscal balance and public debt levels ▪ External debt level ▪ Level of imports and exports ▪ Foreign trade surplus or deficit ▪ Level of *Foreign Direct Investment* (FDI) ▪ *FX-Risk*: Devaluation of foreign currency-denominated assets, increase of carrying cost of foreign debt and capital outflows due to country currency weaknesses ▪ *Inflation Risk*: Destabilisation of the economy, weakness of the currency, decrease in foreign investment levels due to high inflation rates leading to increase of credit costs, land, construction and labour ▪ Reduction in various types of real estate demand due to falling GDP growth rates ▪ *Interest Rate Risk*	from external sources ▪ Systematic analysis of the history of macroeconomic data if available including the level of economic indicators, volatility and trends ▪ Comparison of past macroeconomic data with the actual real estate market performance ▪ Establishment of working hypothesis about the real estate macroeconomic drivers ▪ Indirect measures of a country´s macroeconomic risks comprising information provided by external rating agencies, sovereign bond spreads, currency volatility, price movements of equity and corporate bonds or derivatives in terms of movements in a country´s sovereign *credit default swap* (CDS) ▪ Including sensitivity scenarios into cashflow projections *Mitigations* ▪ Importance of basically weighting the different types of possible consequences in case of macroeconomic changes ▪ Determination of the impact on the net results of those changes in terms of investment strategy ▪ Hedging requirements for uncertain future

		cashflows; therefore, all cashflows (funding and repayments) have to be considered ▪ Cashflow forecasts to include sensitivity analysis ▪ *Self-protection of cashflows*, i.e. assessing whether the cashflows from operations are sufficient and sustainable in case the value of the debt service negatively varies ▪ Financing in the same currency in which cashflows will be generated or use forward agreements for buying and selling, futures or options on exchange rates, currency swaps, consumer price index swap etc. ▪ Pass-through in contracts ▪ Complex terms of the loans require more complex hedging and replication mechanisms ▪ Pass-through in contracts ▪ Political Risk Insurance
Financial System Risks	*Financial System Risks* ▪ Level of strength of the financial institutions of a country in terms of central bank, banking system and financial regulators ▪ Nature of a country´s monetary policy ▪ Credibility and solvency of financial system ▪ Exchange rate policy	*Due Diligence* ▪ Break-down into cost of funds for acquisition of the building, rents received and costs incurred during investment period, sales proceeds received at some future point in time ending up in a scenario showing that a decreased liquidity/higher interest rate has a significant

	▪ Significant reduction in foreign currency inflows and depletion of currency reserves in case of poor diversification of the economy also being subject to limited types of export demand ▪ Inefficient capital allocation and excessive or unforecastable pricing for creditors, developers, clients and investors due to lack of financial intermediaries; *risk of development of highly volatile, unregulated parallel financial markets* ▪ Control of money supply, interest rates and currency management policies driven by political interests in the absence of central banks´ independence	impact on the project ▪ Direct measures of financial system risk regarding size of money supply, growth and interest rates, capital adequacy, liquidity levels, creditworthiness and quality of financial institutions ▪ Indirect measure comprising interest rate movements, the level or rate of financial system transactions, the velocity of currency reserve accumulation/depletion *Mitigations* ▪ Borrowing funds for acquisition in a jurisdiction with more favourable interest rate conditions ▪ Offshore credit funds for taking out the debt in case of floating interest rate debt ▪ Negotiation of longer term contracts with service providers at fixed cost basis
Legal and Regulatory Risks	*Legal and Regulatory Risks* ▪ Dependence on judicial system; corruption issues of individual judges (e.g. influencing outcome/timing of legal decisions) ▪ Permission of ex parte hearings following legal procedures of certain jurisdictions, i.e. where only the counsel of one party is present	*Due Diligence* ▪ Assessment of local development risks in terms of development law authorities, variances and exceptions, zoning laws applicable to investor´s project ▪ Assessment of local construction risk related to authority and potential corruption issues

	▪ Use of questionable evidence under certain jurisdictions, which is e.g. prohibited in an investor´s home jurisdiction ▪ Difficulties for investors to succeed in the initiation of legal hearings caused by enormous legal case backlogs ▪ Non-recognition of key commercial legal rights of foreign investors under local law ▪ Incompletion or contradiction of laws within the legal system with respect to basic investor rights and/or applicable project regulations ▪ Rapid change of key foreign investment laws without pre-warning ▪ Uncertainties in connection with double taxation treatments, domestic tax laws or other regulations materially influencing investment economics ▪ Reduction of real estate growth by government in order to slow down price increases (e.g. by lending restrictions) ▪ Unclear or randomly applied laws, regulations and process addressing zoning and zoning variances ▪ Non-existent or inconsistently applied key real estate substantive rights (e.g. with respect to	▪ Assessment of local taxation risk in the light of tax authority, application of tax laws, corruption and specific tax risks regarding a foreign investor ▪ Assessment of local judicial risk in terms of structure and independence, procedure and functioning as well as corruption *Mitigations* ▪ Perfect understanding of the relevant legal and regulatory framework in the host country and its impact on the project until completion ▪ Legal Counsel with an active voice in legal changes ▪ Perfect understanding of the relevant legal and regulatory framework in the host country and its impact on project completion ▪ Strong legal framework ▪ *Political Risk Insurance* ▪ ▪ ▪ ▪ ▪

	ownership, title transfer and landlord/tenant relationships) ▪ No clear definition or difficulties in enforcement of laws defining lender´s rights or security interests ▪ Generally vague or contradictory wording of law, rapid change of laws and regulations, arbitrarily enforced laws	▪ Strong termination provisions under the contract ▪ *Title Insurance* protecting buyers against financial losses as a result of defects in title to real property *(owner´s vs. lender´s policy)*
Social Risks	*Social Risks* ▪ Core demographics like size and trends of population ▪ Economic conditions like income and employment levels as well as income disparities ▪ Level of economic, political, religious freedom ▪ Quality of life ▪ Large movements of people ▪ Destabilizing political situation due to high level of poverty leading to reduced foreign investment and capital outflows ▪ Acts of violence driven by religious or social aspects negatively influencing infrastructure plans, project labour force or assets ▪ High degree of unemployment caused by strong drops in GDP growth rates leading to reduced real estate demand	*Due Diligence* ▪ Existing social risk regarding level of poverty, unemployment, income inequality, health care, violence, social protests ▪ Political change to levels of social risk implying increase in unemployment rate, close of major business in community or exposition to such, incentives provided by local policies to enforce the presence of business/individuals in the community ▪ Potential of social risks impacting investor´s business like required removal of persons from their land due to envisaged project, evidence of attacks on any business/properties of foreign investors or real estate companies as well as related observable protests *Mitigations*

	▪ Increases in income inequality driven by rapid economic growth resulting in quick changes in governmental policy in connection with real estate development project	▪ Overall understanding of political urban development strategies, relevant infrastructure needs, development time frame, number of construction permissions and the building construction times on average ▪ Assurance that under no circumstances people will be threatened or violently forced to move and act in contravention of their rights ▪ Focus on activities to the local community with good *corporate citizen* activities
Investment Structure Risks		
Complexity	*Investment analysis risk implying Settlement Risk* ▪ Foreign investor´s inability to undertake an appropriate due diligence in terms of investment analysis (e.g. limited market information, limited historical information, fraudulent financial statements or failure of financial statements, challenges in projecting future cash flows and costs, other documents missing being crucial for assessment purposes) ▪ Administrative inefficiencies and elevated investment costs due to high complexity of investment structures when seeking for reduced investment risk or tax benefits	*Due Diligence* ▪ *Economic terms of an investment* have firstly to be identified: *loan versus share investment* ▪ *Consideration of Timing* regarding investor´s capital outflows and various project-related expenditures to be made as well as the timing regarding the revenues to be received in order to determine the cashflow timeline to be recognized within the financial model ▪ *Consideration of business decisions* in terms of timing and nature do constitute vital factors within investment structuring

		Mitigations ▪ Risks to equity and debt structures to be significantly reduced through due diligence, investment structuring, operational oversight ▪ *Financial modelling assumptions* to be typically provided by the relationship party should be ensured in terms of liability by a representation letter and/or guarantees subject to Legal advice ▪ Loan documentation to include a clause providing the investor oversight also with regards to operational decisions and not only with regards to decisions potentially affecting the investor´s legal rights ▪ Yearly re-submission of external valuation reports determining the market value of the subject property and hence the collateral value for the Bank as the collateral value correlates with the rating (probability of default) of the project company/borrower given that the value is usually based on income generation ability
Tax Efficiency	*Tax Risks* ▪ Non-recognition of contemplated tax benefits under double taxation treaties and/or investment structures ▪ Possibly unclear and uncertain regulations and	*Due Diligence* ▪ Appropriate forecast of the tax benefits to be received ▪ Identification of existing tax benefits through relevant tax code and treaty provisions

	tax law ▪ Inconsistent application of tax law and regulations ▪ Probability of tax benefit withdrawal by a specific locality	▪ Cooperation with tax counsels gaining their professional advice when investigating the nature of investment, but also in terms of expected timing of costs and revenues *Mitigations* ▪ Appropriate tax management strategy under consideration of tax counsel´s advice ▪ Increase of probability for getting tax benefits ▪ Identification of *additional* taxes which might be imposed on the project´s production ▪ Quick realization of tax benefits ▪ Receipt of tax rulings ▪ Written confirmation from relevant government authorities regarding the receipt of tax benefits ▪ Receipt of external opinion from tax firms
Legality	*Enforcement Risk & Non-Compliance Risk* ▪ Non-enforceability of key legal structures or rights under those structures underpinning investment economic assumptions ▪ Non-compliance with applicable laws and regulations	*Due Diligence* ▪ Review of external Legal Opinion confirming that the structure is in compliance with applicable laws and regulations ▪ Review of external Legal Opinion advising on any actions to be required/abolished by the investor in order not to violate laws and regulations during investment period

		Mitigations ▪ External Legal Opinion confirming that the structure is in compliance with applicable laws and regulations ▪ External Legal Opinion advising on any actions to be required/abolished by the investor in order not to violate laws and regulations during investment period. ▪ External Legal Opinion on enforcement risk of the underlying investment structure including collateralization applied ▪ Perfect understanding of the relevant legal and regulatory framework in the host country and its impact on project completion
Relationship Risks		
Execution Risk	*Execution Risk & Risk regarding Conflict of Interest* ▪ Endangered execution of the project due to lack of competence, experience, appropriate incentives or resources of local relationship party to complete the project ▪ Endangered execution of the project due to *conflict of interests*	*Due Diligence* ▪ Legal due diligence areas to identify formation issues, organisational structure, organisational proceedings, policies and procedures, employee issues, regulatory approvals, material and insurance agreements, liabilities, regulatory actions as well as litigation ▪ Financial due diligence addressing the capital structure, financial conditions, profitability

		analysis, budget analysis, revenue and cost projections ▪ Business due diligence comprising analysis of the project team, post projects and the current project *Mitigations* ▪ Engagement of an appropriate Legal Counsel in the respective jurisdiction where the investment shall be carried out ▪ Experienced 3rd party operations and maintenance contractors on a fixed cost basis ▪ Contractual documentation to be in place allowing to unwind a contractual obligation in an orderly way in case developments following execution of the agreement could expose the investor or Bank to personal liability ▪ Specification of scope of work and timing for the relationship parties ▪ Creation of a team-, interactive- and real time-based approach in terms of a workflow model ▪ Structured leverage of the relationship parties´ understanding of the market environment in terms of conditions and actors

***Bad Acts* Risk**	*Bad Acts Relationship Risk* ▪ Relationship party´s engagement in acts violating the agreements with the investor making the investor thereby legally liable *Bad Acts Risks at Organisational Level*	*Due Diligence* ▪ Focus on identification of related issues at organisational and operational level as well as at the level of contractual legal means *Mitigations* ▪ Inclusion of *supermajority* provisions in the shareholder agreements stipulating that specific decision-making is possible only subject to unanimous vote in case of non-majority position of the shareholder ▪ Inclusion of "timely submission" clause in the shareholder agreement to ensure that the investor together with the advisors have enough time to review the documentation (e.g. in case the key documents require translation in terms of language) ▪ Defining conditional seats in the Board of Directors to exercise control over the local partner ▪ Submission of copies of all signed and valid Power of Attorneys subject to legal investigation ▪ Power of Attorney to be issued for specific purpose and to be provided only for exceptional cases

	Bad Acts Risks at Operational Level *Bad Acts Risks related to Contractual Legal Means*	*Mitigations* ▪ Issuance of respective Risk Management and Accounting policies and procedures ▪ Formation of different types of committees e.g. for budget formation in order to get views from other departments, to create synergies between investor and relationship parties and to increase the probability of risk identification at some very early stage ▪ Requirement for the investor representative´s signature for envisaged financial transactions, various legal transactions (e.g. contract execution) as well as pre-agreed corporate actions (e.g. business planning) *Mitigations* ▪ Contractual provisions in terms of *negative or positive covenants* allowing or not allowing specific actions undertaken by the relationship parties
KYC *Know your customer* Risks	*KYC Risks* ▪ Investor´s exposition to legal liability and reputational risks due to a relationship party´s activities in the past, also when these activities	*Due Diligence* ▪ How long does the relationship between the party and the Bank last implying a positive track record of the past transactions?

	are connected with another individual and/or group: ▪ Entity is located in suspect country ▪ Individual is coming from suspect country ▪ Newly established relationship party in offshore-jurisdictions with no track record in terms of operations ▪ It is the first time for the relationship party to conduct investment in the respective business area ▪ Individual or entity are subject to litigation ▪ Individual or entity are subject to bankruptcy proceedings ▪ Individual or person is unable to provide full set of answers and/or information required ▪ Non-availability of reliable sources confirming the party´s business practices and reputation	▪ What´s the nature of the transaction and the party´s role in the transaction? ▪ Are there any *red flags* leading to significant KYC concerns? *Mitigations* ▪ In case of identified *red flags* the Bank should not proceed with the applied transaction ▪ KYC check to be undertaken not only as one-off process, but on regular basis and/or ad-hoc if required ▪ Contractual documentation to be in place allowing to un-wind a contractual obligation in an orderly way in case developments following execution of the agreement could expose the investor to personal liability ▪ Appropriate Legal Counsel in the respective jurisdiction to make sure that all issues related to potential legal liability are identified and managed
All the above mentioned risks related to real estate project financing have to be carefully identified, recognized, assessed and mitigated by a Bank´s Credit Risk Manager, otherwise there is high risk in terms of default of the underlying project for which the bank has provided a loan, i.e. there might be high risk in terms of recovery for the Bank when being exposed to unexpected exit, with finally ending up in		

potentially high reputational risk for the Bank as perceived by the environment.		
Default Risk of the Project & Reputational Risk for the Bank	▪ Excessive restrictions imposed on the borrower´s operations ▪ Insufficient monitoring and reporting of project progress ▪ Insufficient control of disbursements and receivables ▪ Lack of comprehensive collateral package	▪ Focus on transparent projects with best-practice standards

Fig. 21: Overview of Real Estate Risk Category, Risk Description and Mitigations