TRANSFER PRICING

Fundamentals of the arm’s length principle and pricing of intercompany loans

By Rasmus Steiness, Cand.merc Accounting, Strategy and Control
Copenhagen Business School
April 2012, CPR: xxxxx-xxxx

Supervisor: Christian Plesner Rossing
Institut for Regnskab og Revision

Characters: 178,080 (78.27 normal pages)
Executive summary

Transfer pricing regulations has been around for more than 100 years; it was and still is envisioned to act as a tool to prevent tax planning by multinational enterprises. Since the introduction of the OECD Guidelines and article 9 of the OECD model for tax convention, it has however also proved to create uncertainty for these enterprises. Still more complicated transactions are challenging the interpretation of the arm’s length principle, leaving companies in an ever changing environment. Especially transactions involving intercompany financing have caused different interpretations across jurisdictions when applying the arm’s length principle.

This thesis examines the main value drivers behind loan arrangements and especially focuses on the effect the relationship between two related parties, can have on the pricing of intercompany loans. The insight and control a parent company can.excise over a subsidiary is considered important, when evaluating the risk inherit in a loan arrangement. Thus applying an interest rate based on a stand-alone credit assessment of the loan taker, would not reflect the actual risk carried by the loan provider.

Supported by recent case law, an analysis of the principles behind establishment of an arm’s length price is done in order to evaluate the effect the relationship should have. Applying the separate entity approach in the assessment, would require the parties to act in an economical rational manner. By exercising their bargaining power, they explore secondary realistically options available, implied by the notion that each involved party will seek to maximize their profit. The thesis concludes that only effects available to third parties should be included in the risk assessment and eventually the determination of the arm’s length price.

Finally the thesis investigates the most appropriate method to examine an arm’s length price, based on the above conclusion. Comments made by the Danish Minister of Taxation are used in order to examine accepted approaches. It is concluded that, if possible, the CUP method is the most appropriate method to use, which is proven by a benchmark study. However, it is difficult to adjust for the effect that the relationship will have on the price, one approach is to support the benchmark by an offer from a bank. A bank offer cannot stand alone as there has not been an actual transaction, but it can be used as a way to determine the value of being part of a group, i.e. determine the needed adjustment that has to be made to the benchmark results.
# Table of contents

**EXECUTIVE SUMMARY** .......................................................................................................................................................................................... 3

**TABLE OF CONTENTS** ......................................................................................................................................................................................... 5

1. **INTRODUCTION** ................................................................................................................................................................................................. 10

   - PROLOGUE .................................................................................................................................................................................................. 10
   - REASONING BEHIND THE THESIS TOPIC ............................................................................................................................................ 11
   - OVERVIEW OF THE PROBLEM ............................................................................................................................................................... 11
   - PROBLEM AREA .......................................................................................................................................................................................... 12
   - PROBLEM STATEMENT ............................................................................................................................................................................ 12
   - DELIMITATIONS TO THE THESIS ....................................................................................................................................................... 12
   - DELIMITATIONS ........................................................................................................................................................................................... 12

2. **THEORY AND METHODOLOGY** ......................................................................................................................................................................... 13

   - THEORETICAL APPROACH .................................................................................................................................................................. 13
   - RESEARCH DESIGN AND STRATEGY .................................................................................................................................................... 13

   - RESEARCH DESIGN .................................................................................................................................................................................. 14
   - RESEARCH STRATEGY ........................................................................................................................................................................... 14

   - STRUCTURE OF THE THESIS ............................................................................................................................................................ 14

   - THEORETICAL APPROACH AND METHOD ........................................................................................................................................ 15

      - LEGAL APPROACH ........................................................................................................................................................................ 15
      - OECD guidelines .................................................................................................................................................................................. 15
      - Case Law .................................................................................................................................................................................................. 17
      - ECONOMICAL APPROACH .......................................................................................................................................................... 17

2. **THE OECD GUIDELINES AND THE ARM’S LENGTH PRINCIPLE** ................................................................................................................. 20

   - THE ARM’S LENGTH PRINCIPLE .......................................................................................................................................................... 20

      - COMPARABILITY ANALYSIS .......................................................................................................................................................... 21

         - CHARACTERISTICS ......................................................................................................................................................................... 21
         - FUNCTIONAL ANALYSIS .................................................................................................................................................................. 22
         - Functions ............................................................................................................................................................................................ 22
         - Assets .................................................................................................................................................................................................. 23
         - Risks .................................................................................................................................................................................................. 23
         - CONTRACTUAL TERMS .................................................................................................................................................................. 24
         - ECONOMIC CIRCUMSTANCES ........................................................................................................................................................ 24
         - BUSINESS STRATEGIES ........................................................................................................................................................... 25

   - EVALUATING THE ARM’S LENGTH PRICE/TRANSFER PRICING METHOD ........................................................................................................ 26

      - TRADITIONAL TRANSFER PRICING METHODS .................................................................................................................................. 26
      - Comparable uncontrolled price method (“CUP”) ..................................................................................................................................... 27
      - Resale price method ............................................................................................................................................................................. 28
3. LOAN CHARACTERISTICS AND INTEREST RATES ........................................... 34

RISK FREE RATE ................................................................................................... 34
GOVERNMENT BONDS ......................................................................................... 34
INTER-BANK RATE ............................................................................................... 35
SWAP RATE ........................................................................................................... 35

DETERMINE THE INTEREST RATE – THE RISK PREMIUM ...................................... 36

CREDIT ANALYSIS ................................................................................................. 36

THE INTENDED USE OF THE LOAN ................................................................. 37

STRATEGIC ANALYSIS OF THE COMPANY .................................................. 38

ANALYSIS OF THE COMPANY’S ACCOUNTING QUALITY ........................................ 38

ESTIMATING THE CREDIT RATING ......................................................................... 38

THE CHARACTERISTICS OF THE LOAN .............................................................. 39

LOAN TYPES ........................................................................................................... 39
Pure discount loan .................................................................................................... 40
Interest-only loan ....................................................................................................... 40
Amortized loans ......................................................................................................... 40
Credit facility ............................................................................................................. 41
LOAN GUARANTEES ............................................................................................... 41

BUSINESS RISK ................................................................................................. 41

COUNTRY RISK ..................................................................................................... 42
Financial markets ..................................................................................................... 43
Macroeconomic factors ............................................................................................ 43

INDUSTRY RISK ................................................................................................... 44

Sales and revenue prospects ................................................................................... 45
Patterns of business cycles and seasonality ........................................................... 45

Barriers of entry ...................................................................................................... 46

The effect on credit rating and a company’s creditability ........................................ 46

COMPANY-SPECIFIC BUSINESS RISKS ....................................................... 47

Competitive position and competitors ................................................................. 47

Market position, sales growth and pricing ............................................................ 49

Business consistency and stability ...................................................................... 49

Regulations ............................................................................................................. 50

The management factor ........................................................................................ 50

FINANCIAL RISK ........................................................................................................ 51

THE BALANCE SHEET ........................................................................................ 53

PROFITABILITY ................................................................................................. 54

CASH FLOW ADEQUACY ..................................................................................... 55

Short-term liquidity risk ........................................................................................ 55

Long-term solvency risk ......................................................................................... 56

LIQUIDITY AND FINANCIAL FLEXIBILITY .................................................... 58

STRUCTURAL RISK ............................................................................................. 60
4. MEASURING AND PRICING CREDIT RISK .......................................................... 66
   CREDIT RANKING .......................................................................................... 66
   BUSINESS RISK AND FINANCIAL RISK ASSESSMENT ............................. 67
   Business risk ............................................................................................. 67
   Financial rating ......................................................................................... 70
   Weighting the business risk and financial risk scores .............................. 71
   Recovery prospect .................................................................................... 72
   PRICING OF CREDIT RISK ....................................................................... 73

5. DETERMINING COMPARABILITY .................................................................. 76
   COMPARABILITY ANALYSIS ....................................................................... 76
   ESTABLISHING THE ARM’S LENGTH TRANSACTION .................................. 76
   COMPARABILITY ANALYSIS ....................................................................... 77
   Functional analysis .................................................................................. 77
   ECONOMICAL RATIONALE IN TRANSFER PRICING .................................. 79
   STATOIL ASA case HR-2007-1145-A ......................................................... 80
   The court argued ..................................................................................... 81
   LOAN PRICING AND CHARACTERISTICS ............................................... 82
   INTERNALIZATION BENEFITS .................................................................. 82
   HER MAJESTY THE QUEEN AND GE CAPITAL CANADA (2010 FCA 344) .... 83
   DILIGENTIA AB AND SKATTEVERKET (REGERINGSRÄTTENS DOM 2483-2485-09) 84
   INTERPRETATION OF CASE LAW ............................................................ 85
   THE ARM’S LENGTH PRINCIPLE ON THE MOVE .................................... 85
   CONCLUDING REMARKS ....................................................................... 87

6. SELECTION OF TRANSFER PRICING METHOD ......................................... 90
   SELECTING THE TRANSFER PRICING METHOD ...................................... 90
   COMPARABLE UNCONTROLLED PRICES ............................................... 90
   RESALE MINUS METHOD ....................................................................... 90
   COST PLUS METHOD ............................................................................... 90
   TRANSACTIONAL NET MARGIN METHOD ............................................. 91
   THE PROFIT SPLIT METHOD .................................................................. 91
   PRICING THE TRANSACTION .................................................................. 92
   BENCHMARKING ..................................................................................... 92
   Determining a standalone credit rating ................................................... 92
   Pricing the loan ...................................................................................... 92
Benchmarking the loan .......................................................... 93
Bank Offer ............................................................................ 93
Discount Rate + 4% .............................................................. 93

Summarizing the selection of Transfer Pricing Method ............ 94

Conclusion .............................................................................. 96

Perspective and Further Research ........................................ 99

Bibliography ........................................................................... 100

List of tables

Table 1 Risks related to companies ........................................... 52
Table 2 Business and Financial risk scoring matrix .................. 66
Table 3 Industry risk credit scoring matrix ................................. 68
Table 4 Company specific risk credit scoring matrix .................. 69
Table 5 Country risk credit scoring matrix ................................. 69
Table 6 Business risk credit scoring matrix ............................... 70
Table 7 Financial risk scoring ................................................... 71
Table 8 Business and financial risk weighting ............................ 72
Table 9 Corporate credit score .................................................. 72
Table 10 Credit rating agencies’ scale ....................................... 73
Table 11 US industrial 10-year spread (two-year high/low) to US Treasury, 10 year ................................. 74

List of figures

Figure 1 Mapping the controversies ........................................ 11
Figure 2 Structure of the thesis ............................................... 15
Figure 3 Resale minus method ............................................... 28
Figure 4 Transfer pricing methods and price basis..................... 31
Figure 5 Performing a credit analysis ...................................... 39
Figure 7 The elements of the financial analysis ......................... 53
Figure 8 Operating cycle of a company .................................... 57
Figure 9 Priority Ranking ....................................................... 61
Figure 10 Business risk elements ............................................ 67
Figure 11 HR-2007-1145-A ...................................................... 80
Figure 12 Allocation of group benefits in loan arrangements ....... 86
Chapter 1

Introduction
1. Introduction

Prologue

Countries around the world are under pressure in order to limit the deficit on the public finances. This has resulted in governments seeking new ways to generate profit, without taxing the voters directly, one of the means in order to achieve this objective is to increase the focus on multinational companies and transfer pricing (PwC, October 2011). Even though transfer pricing and awareness of it has been around for the past 100 years, the first draft of OECD Guidelines was not issued until 1995. In addition, it is only within the past 10-15 years, that transfer pricing has generated as much awareness as it has today.

With the changing business environment leaning towards larger organisations, the number of transactions in the world has increased. The share of transaction which are between related parties, are by some estimated to be between 60% and 80% of all transaction. These changes reflect on international trade, as multinationals have a greater effect on the local tax base than ever before. Furthermore, the transactions increasingly involve more complicated products and services, which can be difficult to price. These transactions goes from transferring simple goods, over to today’s intercompany transactions which can involve anything from specific knowledge, IP, financial instruments, management services and so on.

With national tax authorities under heavy political pressure; more transfer pricing adjustments are made in order to test the local legislations and ensure that companies are not using transfer pricing as a mean to avoid tax. One of the areas which are experiencing an increased focus is transfer pricing related to financial transaction, i.e. intercompany financing. Not only are tax authorities challenging the pricing of these transactions, they are also testing the economical rationale behind the transactions, in order to secure the local tax base. This has putted the principles in the OECD Guidelines to the test, and a number of cases have been taken to the highest courts around the world.
The international environment is changing and companies are trying to navigate in order to be both compliant and tax efficient. The area is only supported by little guidance and new interpretations are popping up all over the world.

**Reasoning behind the thesis topic**
As transfer pricing is a relatively new area, where principles are based on the work of the OECD, it usually takes a long time from new issues are raised to an actual guidance is developed. There is no doubt that transfer pricing is here to stay, and that it will always develop faster than the guidance available on the area. Thus companies often have to rely on other material than the OECD guidelines in order to understand and navigate in their specific situation. When it comes to intercompany loans and financing there is only a small amount of guidance and some case law. None of which has been analysed more deeply, as well as the effect the local cases can have on the general interpretation of the arm’s length principle.

**Overview of the problem**
The aim of this thesis is to investigate the underlying structure of corporate credit analysis and the pricing methods of inter-company loans in context of the OECD Guidelines.
**Problem area**

As stated in the prologue, transfer pricing is an area which has caught the attention of local governments after the financial crisis. In light of this, one of the areas which are under an increased review is remuneration related to inter-company financing, hereunder inter-company loans.

With an area under constant development, regulations and interpretation of international guidelines, which may differ across countries, the tax payers are left little room to manoeuvre. This sometimes result in double taxation situations, with only minor possibility for corresponding adjustments.

With this in mind, can an analysis of the various pricing methods create a common approach to establish arm’s length remuneration for inter-company loans? What is the underlying approach to establishing a corporate credit rating, and can it be used to price loan arrangements? What methods have generally been applied by the tax authorities, hereunder especially the Danish Tax authorities?

**Problem statement**

The above mentioned question has led to the following problem statement: “**What risk factors influence the price of a loan, how is corporate credit rating analysis conducted?**”, “**How does the relationship between group companies affect the loan pricing?**” and “**What is the most appropriate method to establish a price on loans provided between related entities?**”. The purpose of this thesis is to conclude on this problem statement, which will be done through research into different areas of influence.

The methodological approach can be seen further down.

**Delimitations to the thesis**

This thesis will investigate the methods applied by local tax authorities and courts when dealing with pricing of intercompany loans. This will be held against an interpretation of the OECD Guidelines, in order to seek an approach, which can be considered practical when solving these matters.

The delimitations are as follows.

**Delimitations**

This thesis only takes a theoretical approach in the analysis of intercompany financing. It is based on research of case law, as well as an interpretation of the OECD Guidelines. No companies where involved and the conclusions is therefore purely theoretical, identifying the overall trends within intercompany financing and transfer pricing.
The thesis will not focus on a specific market, even though its conclusions are based on local case law. It will investigate the matter at an overall level, not diving into local legislative requirements for company financing.

This thesis will not evaluate the actual pricing of loans; rather it will focus on factors influencing the pricing. It will not investigate the pricing of guarantees and other financial instruments for risk managements, such as hedging arrangement, cash pooling activities and investments. The thesis will not go into any assessments of risk premiums on a more specific level.

Additionally, it will not conclude on any negative effect the relationship between related parties can have.

**Theory and methodology**

“When it comes to the development of qualifications and experiences, problem orientated work contains several qualities. Fundamentally you can say that problem orientated project work unites knowledge-based and experience-based learning” (Nielsen, 2007, p. 9)

**Theoretical approach**

The thesis is based on a deductive approach; where relevant knowledge and theory is firstly examined in order investigate the chosen problem statement and problem area. It is explanatively oriented aimed at finding essential factors, which can shed light on the applicability of the current available guidelines and theories in order to work on new types of transaction arising in the environment of transfer pricing. Further the thesis takes a macro-structural view on the problem area. It investigates the overall environment for financial transactions and the recent developments there has been across different jurisdictions. The degree of abstraction is analytical on the verge of paradigms, because it is looking into trends in the transfer pricing environment and the impact those have on the application of pricing methods.

The ontology of the thesis aims at being objective, although since it is an explanatively oriented problem statement, springing out from my own interest, the different observations might be influenced by subjective opinions, and own experiences, but this is sought to be kept to a minimum.

**Research design and strategy**

“The research design is an expression for the combination of approaches, chosen to ensure that the data later collected meets the prerequisites for clarifying and
Research design
This thesis has an evaluating research design with a summative purpose, in the sense that it is meant to summarize the effect that the available guidelines and standards has on the pricing of intercompany transactions related to financial arrangements. Through an analysis of this, a conclusion on whether or not the interpretation of the guidelines is being used in a manner which reflects the situation today will be made.

Furthermore, the design will be formative, in the sense that the influence the interpretation of the guideline can have on the pricing of loans, is meant to aid the analysis of the problem statement. This is in order to further develop the area, by estimating if the current approach taken by authorities is in line with the arm’s length principle.

Research strategy
The research strategy of this thesis is to gather information through literature supportive for the interpretation of the OECD Guidelines, in context of pricing intercompany loans. This will be in the form of books, articles, internet searches, case law, etc. Especially the use of case law can provide an insight into how local jurisdictions use and apply principles in the OECD Guidelines.

Structure of the thesis
The thesis is structured so that it follows two separate tracks. In chapter 2, 3 and 4 a general description of the OECD Guidelines and the arm’s length principle, as well as loans and pricing of credit risk is described. This is then combined in chapter 5 and 6 where a pricing methods and pricing is discussed. This will be based on the findings in the previous chapters as well as include relevant case law.
The problem statement is being concluded on in the conclusion as well as there are some perspectives for further research.

**Theoretical approach and method**

**Legal approach**

The legal approach is used to interpret the pricing methods to be applied. It will consist of an interpretation of the OECD Guidelines, the OECD model convention and relevant case law from around the world.

**OECD guidelines**

The Organization for Economic Co-operation and Development (OECD) is a forum where governments can seek solutions to common economical, environmental and social challenges. It consists of 34 different countries and was formed in 1948 to administer the Marshal Aid provided from the USA and Canada after the Second World War. Today the OECD strives to improve policies and implement soft law. Soft law is a non-binding law, which eventually can lead to international treaties or support interpretation of local law and trough that become binding law (Tvarno & Nielsen, 2008, p. 132), (OECD, 2011).

One of the areas where the OECD strives to create international common policies and legal framework is in international tax, this has lead to the model tax convention, which serves as a
template for bilateral negotiations regarding tax coordination and cooperation. Especially article 9 in the Model Tax Convention, dealing with principles for intercompany trading:

1. Where

   a) An enterprise of a Contracting State participates directly or indirectly in the management, control or capital of an enterprise of the other Contracting State, or

   b) The same persons participate directly or indirectly in the management, control or capital of an enterprise of a Contracting State and an enterprise of the other Contracting State,

   and in either case conditions are made or imposed between the two enterprises in their commercial or financial relations which differ from those which would be made between independent enterprises, then any profits which would, but for those conditions, have accrued to one of the enterprises, but, by reason of those conditions, have not so accrued, may be included in the profits of that enterprise and taxed accordingly.

2. Where a Contracting State includes in the profits of an enterprise of that State — and taxes accordingly — profits on which an enterprise of the other Contracting State has been charged to tax in that other State and the profits so included are profits which would have accrued to the enterprise of the first-mentioned State if the conditions made between the two enterprises had been those which would have been made between independent enterprises, then that other State shall make an appropriate adjustment to the amount of the tax charged therein on those profits. In determining such adjustment, due regard shall be had to the other provisions of this Convention and the competent authorities of the Contracting States shall if necessary consult each other.

The aim of the model for tax convention is to establish principles which shall minimize the risk of double taxation for multinational companies. Hereunder especially article 9, which set out a principle for how multinational enterprises shall price intercompany transactions. Article 9 can however not stand alone, and a set of guidelines have been developed to support the interpretation of article 9. The principles are getting widely accepted throughout the world, as it not only creates a common ground for solving tax issues, it also removes the tax considerations from economic
decisions in multinational companies. This ensures that associated and independent unrelated enterprises compete on a more equal footing, as tax advantages for multinationals are removed.

OECD has developed The OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, latest edition is from July 2010 (hereinafter: the OECD Guidelines). The guidelines are widely accepted as a framework for interpretation of article 9 and to establish and analyse Arm’s length prices and conditions, as well as solve international tax issues.

Case Law
Case law will be applied in order to support the interpretation of the OECD Guidelines. Case law is, if they can be applied in general, supportive for soft law. The general rule is, however, that it is only binding towards the involved parties. (Tvarnø & Nielsen, 2008, p. 43)

Economical approach
In this thesis the economics will form the underlying basis for understating the principles behind the pricing of intercompany transactions related to loans. It is structured in a way, so that it provides the underlying principles applied by professional credit rating agencies, when establishing their risk assessments of companies.

The principles in corporate credit analysis and interpretation of the arm’s length principle are further supported by some economic theories. These are Porter’s five forces and theories on monopolistic competition.

Porter’s five forces is a model developed by Michael Porter and is a classification framework which determines the five forces which influence the profitability of a company. The five forces mentioned are buyer's power, supplier’s power, rivalry among existing firms, threat of new entrants and threats of substitutes. (Stickney, Brown, & Wahlen, 2007, pp. 8-10)

Theories on monopolistic competition are used to explain how companies will act in commercial relationships. Establishing and understanding the competitive strategy which will be used by a company acting as an independent enterprise is used to clarify, how companies act in situations where they have a competitive advantage, but will have no economic gain from driving out competitors. In these cases companies will strive to increase profit, through increased prices. In a competitive environment, full competition, market participants will decrease prices so that they are equal to the marginal cost of producing their products. Inefficient market participants will over time be pushed out of the market, leaving only efficient participant offering the lowest possible prices. If one participant have the opportunity to lower its price below the marginal costs of its competitors, this will eventually drive out all the competition creating a monopoly. A company
operating as a monopoly, will increase its profit, by increasing its prices until potential competitors can enter the market and offer a better price, or customers find alternative options. (Pindyck & Rubinfeld, 2005, pp. 349-359)
Chapter 2

The OECD and the Arm’s Length Principle
2. The OECD Guidelines and the Arm’s Length principle

The Arm’s length principle described in the OECD Guidelines is the centre of motion when handling transfer pricing issues. The Arm’s length principle is the final argument used between tax authorities and multinationals, arguing that intercompany transactions has been conducted on market conditions, thus no profit has been allocated to jurisdictions, which were not entitled to taxing. The Arm’s length principle does not stand alone, as it is supported by a range of tools, which can be applied in order to establish a reliable foundation for the dispositions taken by the multinational company. Eventually support the company in convincing the tax authorities, that the tax base follows the activities performed by each entity in the group and by that avoids double taxation.

The Arm’s length principle

The Arm’s length principle is the international standard, which the countries that are members of the OECD have agreed upon. The Arm’s length principle is the principle that transactions taking place between companies that are related should be priced as if the companies where unrelated parties – at market price. By following this principle, the general idea is that every part of the value chain in a multinational company, is allocated with profit accordingly to the value, which is being created. Ultimately leading to each country getting a tax base, equivalent to the actual value created in the country. If companies are not following the Arm’s length principle, they will be able to shift profits between countries, in order to have low margins in high tax jurisdictions and higher margins in low tax jurisdictions. (Hansen & Andersen, 2008, p. 20)

When evaluating an Arm’s length price the circumstances under which the transaction takes place – the mere characteristics of the transaction – as well as the price of the transaction has to be taken into consideration. The initial point is to identify the characteristics of the transaction, the functions performed, the risks assumed and assets employed, and based on that, determine the market price. It can be necessary to change the characteristics of the transaction if these are evaluated to be so far from what any unrelated parties would agree on, and then re-evaluate the price. According to the OECD Guidelines section 1.64, a tax administration’s examination of a controlled transaction should ordinarily be based on the transaction actually undertaken by the associated enterprises, as it has been structured by them, using the methods applied in so far these are consistent with the transfer pricing methods describe by OECD. Only in exceptional cases should the tax administration deviate from the actual transaction or substitute other transactions for them.
As such does Article 9 in its wording not directly open up for a change in the underlying characteristics of the transaction. Article 9 only states that “... their commercial or financial relations ...” is to be considered (Wittendorff, 2009, p. 179), even though it has been seen, that authorities challenge the underlying terms and conditions, it rarely happens. For most part, it is only the pricing that is being challenged, as it is only in some cases where a change in the terms and conditions will lead to a change in the taxable income.

**Comparability analysis**

As stated above, establishing the Arm’s length price is a comparison of the terms and conditions under which the controlled transaction takes place versus similar transactions between independent unrelated parties. This means, that none of the characteristics in the tested transactions must deviate significantly from those transactions used as comparables. This is only relevant towards characteristics that have an impact on the price and/or margin, or if an accurate adjustment here to can’t be done, cf. OECD Guidelines section 1.33.

The reasoning behind the comparability analysis is the considerations that independent unrelated enterprises would have before entering into a commercial relationship. Independent unrelated enterprises will consider the different options available and in comparing one option to another, differences that would affect their value would be taken into consideration. So, when establishing the basis for the justification of an Arm’s length price between related parties, OECD lists 5 comparability factors, which are seen as the most important when determining comparability. The 5 factors in the OECD Guidelines are characteristics of the property or service transferred, the functions performed by the parties (taking into account the assets applied and risks assumed), the contractual terms, the economic circumstances and the business strategies pursued by the parties, cf. OECD Guidelines section 1.34 - 1.36. It should be noted, that this should neither be seen as a complete list, nor as a minimum of comparability factors, as this may change from transaction to transaction. (Bundgaard & Wittendorff, 2001, pp. 112-113)

The comparability analysis is not only used to compare single transactions or goods, it can also be used to determine the characteristics of a group company, in order to determine an Arm’s length profit level; more on the different transfer pricing methods below.

**Characteristics**

Differences in the characteristics of the transferred good or service often affect the value of the transaction. Depending on the transfer pricing method applied, the significance of this comparability factor may be considered more or less important. The main factors are the traded good or service functionality, quality, availability in supply and quantity transferred. Other factors
Functional analysis

The functional analysis, as defined in the OECD Guidelines, is a framework established to identify the functions that each involved entity perform and ultimately identify the level of compensation for a given good or service. The OECD Guidelines section 1.42 states:

“This functional analysis seeks to identify and compare the economically significant activities and responsibilities undertaken, assets used, and risks assumed by the parties to the transaction”

The term “economically significant” is important as it state which functions, assets and risks are to be considered. Firstly, it states a minimum requirement for what has to be analysed. Intra-group transactions of lesser economically significance are not to be considered. Secondly the analysis should only focus on the value creating activities in the group. Meaning administrative functions and routine activities are less important, if they are not seen as a direct value creating activity (Hansen & Andersen, 2008, p. 97).

Based on the functional analysis a full picture of the functions, assets and risks adding value to each transaction should be clarified, eventually mapping the full or parts of the company value chain.

Functions

It is as such not the transferred commodity itself, which is being evaluated; it is the functions that are creating the added value to the traded commodity.

The challenge for the company is to determine whether a function is seen as economically significant. Especially when valuating intra-group services, that are not in themselves seen as central for the overall business but rather seen as support functions. In some cases, it may not be possible to identify a function, since also processes related to a transaction, may be seen as value adding, depending on the transfer pricing method. If a group company undertakes manufacturing, special processes related to the manufacturing which significantly lowers the cost base, then special considerations towards the transfer pricing method should be made. If the transfer pricing method is based on a price per unit, it will not affect the result of the company negatively, as any improvement made in the manufacturing processes are allocated to the manufacturing company.
General functions in a company can span from strategic management, marketing, production, research and development, services, distribution, production and financial service department. All functions may not be relevant in relation to all intra-group transactions, however when comparing with third part enterprises, the same economically significant functions has to be there, or it should be possible to make an accurate adjustment.

**Assets**
Here should all assets used to, create, or in any other way support the transaction be listed. Anything that has a significant economically value adding function. The OECD Guidelines mentions plant and equipment, the use of valuable intangibles, financial assets etc., and the nature of the assets used, such as the age, market value, location, property right protections available, etc., cf. OECD Guidelines section 1.44.

Usually a distinction is made between trade intangibles and marketing intangibles. Trade intangibles are often created through research and development, which usually is connected to a risk and significant costs during their development. Companies owning trade intangibles should be compensated for the expenses related to their development either through a royalty or increased transfer prices. Marketing intangibles are the same, these are usually connected to a significant risk and cost in their development and an increased compensation should be given here to.

**Risks**
Assumed risk is derived from the above analysis of assets and functions. The higher risk one party may assume the higher the compensation should be, thus the level of risk is an important factor when determining the price. The OECD Guidelines explicit mentions that controlled and uncontrolled transactions are not comparable if there are significant differences in the assumed risk for which appropriate adjustments cannot be made, cf. OECD Guidelines section 1.45. The underlying assumption is that from an economical perspective any risk connected to a potential loss will, if the transaction is between third parties, result in an expected higher return. (Hansen & Andersen, 2008, pp. 100-101)

When determining the compensations that should follow an increased risk related to the tested transaction all additional cost here to has to be considered. This include price of capital tied in the transaction, future costs caused by the risk, that is loss on debtors, fluctuations in currency rates etc. (Bundgaard & Wittendorff, 2001, pp. 114-115). OECD Guidelines section 1.46 also list various risks that has to be considered, these include but are not limited to market risks, such as raw materials and finished goods price fluctuations, risks of losses associated with the investment in and use of property, plant and equipment, risk of the success or failure of investment in research and development, financial risk caused by interest rate variability, credit risk and so forth.
The analysis of assumed risks by either party is closely linked to the section below about contractual terms, as that often support or clarifies whether the distribution of risks has been done correct. It should also be considered if the allocation of risk between the parties is done in such a way, that it resembles the control the parties can excise over that risk. In an arm’s length transactions it generally makes more sense for parties to carry a greater share of those risks, over which they have relatively more control. When evaluating to which extend a party to a transaction bears the financial risk related to for example, currency or interest rate risk, it will usually be necessary to determine whether the multinational have specific business strategies in place dealing with such. Strategies dealing with the management or minimization of such could be used as an indicator to which party that has undertaken the risk. These arrangements could be the usage of hedging arrangements, forward contracts, put and call options, swaps etc. If associated enterprises uses these instruments with other group companies or third party enterprises, this could be used as an indicator to whether they have assumed a significant risk related to the tested transaction, cf. OECD Guidelines section 1.49 – 1.50. By identifying these business strategies, it can help to identify the allocation of risks between the parties. If parties have used a hedging arrangement this indicates, that it also carries the hedged risk in the transaction.

**Contractual terms**

The contractual terms between unrelated independent parties, generally define explicitly or implicitly how the responsibilities, risks and benefits are divided between them. It is common in transactions between related parties, that local tax authorities require a list of intercompany agreements, in order to use these in the functional analysis.

Another important factor that an analysis of the contractual terms can highlight is terms that can affect the price, this could be volume of the transaction, and a fixed high amount of units bought that could affect the price downward compared to an open contract without a predefined order. Term for the contract, is it a long term or short term contract. Terms of delivery; when is the risk handed over to the buyer etc. Service and guarantee condition. Terms of payment, how long is the credit offered, interest on delayed payments, etc.

In some cases adjustments can be made, usually on discounts based on volume a simple linear regression can be made to adjust for differences. Whereas delivery terms and credit terms is more difficult to adjust for, as pricing of this is complicated to determine.

**Economic circumstances**

An Arm’s length price on the same commodity traded across various markets may vary because of differences in market and industry factors. Therefore, economical circumstances where the
commodity is traded have to be included in the comparability analysis. By indentifying these differences in the market, appropriate adjustments can be made to make up for differences, ensuring that the Arm’s length principle is complied with.

This means, that any country (or smaller geographic areas) can have economically circumstances that greatly affect the pricing of a service or good. For instance, when determining interest rates the local price on money could be an important factor, here pricing of government bonds could be used as an indicator to whether an adjustment has to be made. But also other financial factors such as inflation and local finance and budgetary politics could play an important role when evaluating a loan or investment policy in a subsidiary.

**Business strategies**

Business strategies can be used as a comparability factor, just as independent enterprises can act and price products based on a business strategy, related parties can have the same objectives. That could be when entering new markets; a lower price may be needed in order to penetrate the market. But depending on transfer pricing method other factors may be relevant, that could be innovation and new product development, degree of diversification, risk aversion, assessment of political changes, input of existing and planned labour laws, duration of arrangement, cf. OECD guidelines section 1.59.

When businesses use special business strategies, it is essential that these can be documented and that they are followed, e.g. when a manufacturer sells goods below market price to a distributor, this has to lead to lower prices when reselling the good on the market. It also has to be evaluated if the additional costs incurred by following the business strategy, can be covered by the expected return from that strategy. Considerations towards which entity should carry the cost also needs to be evaluated, if the local entity is a limited risk distributor or an agent, with limited risk in regards to future sales and earnings, the costs should be considered to be carried by the parent or another beneficiary of the business strategy. In the US it is a requirement, in order for a business strategy to be recognized, to demonstrate that independent enterprises use comparable strategies, under the same circumstances and in comparable time periods. Furthermore, the company has to document that the costs related to the strategy is carried by the company who will be the beneficiary of future revenues generated from the strategy; and that the strategy was only in place for a period which is typical for the industry, so as the strategy, the costs, the expected return and agreement on the cost sharing were in place before the strategy was initiated (Bundgaard & Wittendorff, 2001, p. 121).
In general it is recognised that a business strategy can fail, and a failure in itself does not as such allow the strategy to be ignored for transfer pricing purposes. However, when a strategy fails, it should be evaluated whether an independent party would continue to follow the strategy, and if so, how long does it seems plausible – the economic rationale behind the decision has to be defendable in terms of expected outcome, cf. OECD guidelines section 1.60 – 1.63.

Evaluating the Arm’s length price/transfer pricing method

In order to determine whether the conditions imposed in the commercial and financial relations between the associated enterprises are consistent with the arm’s length principle, the OECD Guidelines lists, in chapter 2, different transfer pricing methods. These transfer pricing methods are divided into two groups the “traditional transfer pricing methods” and the “transactional profit methods”. Where the traditional methods are comparable uncontrolled price method (“CUP”), Resale minus method, and the cost plus method and the transactional profit methods are the transactional net margin method and the transactional profit split method, cf. OECD Guideline section 2.1.

When determining the transfer pricing method, the consideration should always be which one is the most suitable one, in light of the tested transaction. The appropriateness of the selected method is based on which comparables are available, the nature of the transaction, including risks and functions, the availability of reliable information and the comparability between controlled and uncontrolled transactions, including the reliability of comparability adjustments, which may be needed to eliminate material differences between them, cf. OECD Guidelines section 2.2. Thus the methods are not ranked to start from, only if several methods can be applied on an equal manner. If this is the case then the traditional transactions are preferred over the transactional profit methods. This is to ensure, if possible, that the commercial and financial relations are linked directly to the good or service sold, and thereby not relying on any other financial positions in the companies involved in the transaction.

Companies are recommended but not limited to the five above mentioned transfer pricing methods, if another method is considered more relevant then that can be an option. This is however, more an exemption than the general rule, and if another transfer pricing method is used, it is usually good to describe why the by OECD recommended transactions have been deselected. (Hansen & Andersen, 2008, p. 106)

Traditional transfer pricing methods

The transfer pricing methods covered in this part are the traditional transfer pricing methods. These methods are seen as the most appropriate, if the necessary comparability between the
related and unrelated transitions can be done. These methods are related directly to the transferred
good or service, so, as mentioned above, any other activity in the involved companies does not
affect the pricing of the transaction.

**Comparable uncontrolled price method ("CUP")**

The CUP method is regarded as the most direct transfer pricing method, as it compares the price
on a transaction between two unrelated parties, with that which has been entered between related
parties under similar circumstances. Consequently, when reliable and relevant information is
available, the CUP method is preferred over all other methods.

Following the principles stated in the OECD Guidelines Chapter 1, an uncontrolled transaction is
comparable to a controlled transaction, when applying the CUP method, if one of two conditions is
met:

1. None of the differences between the transactions being compared or between the
   enterprises undertaking those transactions could materially affect the price in the open
   market,
2. If so, reasonable adjustments should be possible to make, in order to eliminate any material
   effects of the differences.

When considering if controlled and uncontrolled transactions are comparable not only the
characteristics of the transferred right (goods or service) should be reviewed, also the broader
business functions of the individual parties, which can have an effect on the price, should be taken
into account.

When evaluating if the CUP method is applicable a review of existing internal comparables
should be made, as these may have a more direct and closer relationship to the transaction under
review.

Given that the OECD Guidelines continue to stress the importance to consider the applicability of
CUPs, when possible, and given that there are a number of potential internal CUPs available for the
purpose of the analysis, this methodology is considered to be the most appropriate method, cf.
OECD Guidelines section 2.13-2.16.

By collecting various different prices on comparable transaction an arm’s length range can be
established. This range is often calculated as being between the first and fourth quartile (25-75),
where the median is considered the most appropriate price. (Hansen & Andersen, 2008, pp. 109-
112)
Resale price method

This method is described in the OECD guidelines section 2.21-2.38. The method uses the resale price to an unrelated independent third party in a series of transactions in order to determine the sale price between two related parties, by subtracting a “service fee” or a margin from the resale price.

Cost plus method

This pricing method uses the cost base as the price indicator in a controlled transaction; the transfer price will then consist of the cost base plus a margin. Whilst precise accounting standards and terms may vary, the costs can be divided into three broad categories. Firstly, there are direct costs of production; secondly indirect production costs and thirdly there are operating expenses. Which costs are included in the cost base may depend on the available comparables, that can be identified. The profit margin is determined on basis of what comparable independent unrelated enterprises would earn on similar services or good. This method is more dependent on the actual functions performed in the related entity, than the characteristics of the commodity or service itself. Again as mentioned above, the characteristics of the transferred commodity has to be somewhat comparable, as differences in valuable intangibles or difficulties in handling the commodity can have an effect on the profit margin.

Often the issue with this method is the comparability of cost base. It is important to determine which costs are included, but also the nature of the costs, whether it is budgeted costs, marginal costs or actual variable costs. If marginal costs are used, the company could be challenged on who should carry the costs of excess capacity in for example in a production facility. One more thing is
which part of the cost base the mark-up should be added to. Some discussion is on whether the mark up should be added to the full costs base or only costs relating to value adding activities. (Hansen & Andersen, 2008, pp. 114-116)

Even though this method seems straightforward, there are many factors that can result in wrong transfer prices. Differences in efficiency could be seen, if the company used, is in comparisons more efficient and thereby having lower costs per produced unit, then using the margin could lead to too high transfer prices between related parties. Such differences have to be taken into account. Also, the nature of assets employed, if the production equipment is leased or whether it is owned by the manufacturer could result in differences in cost base, cf. OECD Guidelines section 2.39 – 2.55.

OECD Guidelines mentions in section 2.52 specifically, that the general rule is, “there is no general rule” when determining the cost base. It has to be evaluated from case to case and is highly depending on which comparables, can be identified in order to support the selected margin to add to the costs.

**Transactional profit methods**

The transactional profit methods examine the profits arising from a particular transaction between related parties. Profit generated on transactions between related parties can be used as an indicator of whether the transaction was affected by conditions that differ from what would be seen between independent unrelated parties, i.e. the arm’s length price.

**Transactional net margin method (TNMM)**

TNMM examines the net profit relative to an appropriate basis the tax payer realises from a controlled transaction. The basis used could be revenues, costs, or assets. This method is the most used of all the transfer pricing methods. TNMM should only be used when one of the parties involved in the transaction makes valuable, unique contributions, as this is a one sided method, cf. OECD Guidelines section 2.58 – 2.59.

The strength of this particular method is that only one of the parties has to be tested, under the essential condition which only one part is contributing with valuable unique functions – or if appropriate adjustments can be made. One other strength of this method is that comparables can have some differences in their functional profile, as these will be reflected in the operating expenses. Thus the tested margin (gross profit indicators) will reflect these differences. Consequently, this may return a wide range of gross profit margins, which are still broadly similar to the levels of operating profit indicators, cf. OECD Guidelines section 2.59 – 2.63.
If comparables are used, which are not considered close comparables appropriate adjustments have to be made, as mentioned above. A weakness in the TNMM is however, it can prove difficult to make such an adjustment, as it can be difficult to determine an actual transfer price on the traded good, as the target is a profit level indicator and not a resale price cf. OECD Guidelines 2.64 – 2.67, (Hansen & Andersen, 2008, pp. 117-118).

**Transactional profit split method**

In this transfer pricing method the accumulated profit generated from an intercompany transaction is identified and based on a functional and risk analysis, the profit is split between the involved parties. The approach of splitting the profit between the involved parties is a contrast to the other transfer pricing methods, as the price or profit generated from the transaction itself is not compared to external sources. When evaluating the relative value of the related parties’ contribution an economic approach is used, thus the functions each party contributes with, is the essential factor when performing the profit split, this analysis is called a contribution analysis (Hansen & Andersen, 2008, pp. 116-117).

The strength of this method is, it can be used for operations which are highly integrated, where one of the one-sided methods would not be considered appropriate, or in cases where both parties to the transaction make unique and valuable contributions

The weakness of this method is, it can be difficult to implement. Not because the method itself is complicated, but identifying the allocation key can prove difficult. It has to be well supported by strong arguments, in order for tax authorities on both sides to accept. Furthermore, it can be difficult to assess the correct costs carried by each involved part as well as the actual profit generated from the transaction.

So even though this method is considered flexible, and it is very unlikely that one party involved in the transaction will get an extreme and improbable profit result, as all parties involved are assessed. The difficulty in assessing the right distribution key and the level of information needed in order to establish a reliable profit split makes the method less prevalent, cf. OECD Guidelines section 2.58 – 2.67.

**Summarizing the comparability analysis and transfer pricing methods**

As described above, the single most important thing when evaluating an intra-group transaction is it characteristics, the kind of risk carried by each party, assets invested and functions undertaken. If a similar transaction is undertaken by third parties this can be used to determine the most appropriate arm’s length price. If this is not the case – i.e. there are differences in e.g. the
risks assumed – an adjustment compensating for the differences has to be made. But also, in light
of the financial crisis, the economical circumstances in a country could mean greater adjustments,
especially if comparables that are between one and five years old are used.

When selecting the transfer pricing method, the most appropriate method in each given situation
should be used, in order to determine the correct arm’s length price. One method is not preferred
to the other, and each situation calls for an evaluation of which method to apply. Thus, it is
important to know the characteristics of the transactions, as well as what comparable data is
available.

![Figure 4 Transfer pricing methods and price basis](image)

In the figure above, the impact on the company's profit and loss statements by each transfer
pricing method has been showed.
Chapter 3

Credit Analysis - Loan characteristics and interest rates
3. Loan characteristics and interest rates

Individuals make equity decisions based on the expected return from investments relative to the risks of not realizing those returns. Loan providers make lending decisions based on the expected return in the form of interest revenues relative to the risks of default. On a general level the loan can be considered as an investment, an investment equal to investing in stocks or bonds – where the interest level or price on the loan is the expected return from the investment. This being said the investment into another company should be priced as what the investor could get from investing the funds into risk free assets, plus a risk premium compensating for any additional risk that may be connected to the investment – i.e. loan arrangement. (Stickney, Brown, & Wahlen, 2007, pp. 284-285)

When dealing with loans a range of factors influence pricing. Basically the price of a loan is the payment, which the debtor pays the creditor for making the capital available, in order to compensate for the risk carried by the creditor. Thus, whenever the nature of the loan is changed, it has to be reflected in the price in order to reflect the change in risk.

Whenever a creditor issues a loan, the provisions made for the repayment of the loan is one of the parts to determine the price of the specific loan. The other part which influences the price is the characteristics of the debtor; an evaluation is made determining the debtor’s chances of being able to fulfil the terms agreed on. (Ross, Westerfield, & Jordan, 2008, p. 171)

Risk free rate

The risk free rate is the starting point for all expected returns. In order for an investment to be risk free it has to meet two criteria’s, the first being, that there can be no risk of default. Secondly, there should be no re-investment risk in the investment. It can be discussed which method to use when establishing the risk free rate. Hypothetically a zero-beta market portfolio should be established, and the return generated from this would be equivalent to the risk free rate. As this is a costly and almost impossible procedure, three other options are proposed: Usage of government bonds, the inter-bank rate and SWAP rate.

Government bonds

The risk free rate is most commonly estimated from government default-free bonds, as they come in many maturities ranging from one month up to more than 20 years, depending on the country. Government bonds are used even though these are not completely risk free. Even so government bonds from Western Europe and the United States have extremely low betas. The maturity used for estimating the risk free rate should depend on the length of the investment/loan, as different
maturities can generate different yields to maturity. (Koller, Goedhart, & Wessels, 2005, pp. 302-303)

A problem with using the government bonds is that it may be difficult to use across market. If the risk free rate for two different countries is needed, they both have to be somewhat similar and have a high credit rating. Another factor which can make them difficult to use, is that some governments, have different requirements as to who can buy them. This may relate to the capital requirements needed to support the investments for financial institutions and special tax structures set in place in order to ensure, that financial institutions buy the bonds. These differences may influence the price (rate) (Hull, Predescu, & White, 2005).

**Inter-bank rate**

The inter-bank rate such as CIBOR (Copenhagen Inter-Bank Offered Rate) for Danish Kroner or the more widely used LIBOR (London Inter-Bank Offered Rate) are examples of inter-bank rates, which is the rate banks are willing to lend a currency to another bank without getting any security in return. As it is an unsecured loan, the Inter-Bank rate is the price for a loan to banks with the highest credit worthiness at any given time, under the current market conditions, also called prime banks. Usually the inter-bank rate is calculated for a period of 1 or 2 weeks, or 1 and up to 12 months. (Brealey, Myers, & Allen, 2008, p. 838)

The inter-bank rate is an average of all the loans provided by financial institutions, which fulfil the requirements of the credit worthiness and that no security is provided in return.

The inter-bank rate is not equivalent to the risk free rate, as a bank does require some return for lending currency to other banks, even though this is with a minimum of risk involved. The inter-bank rate could however be used as an indicator, as to what the minimum price is for lending money in the market, when not taking differences in markets, industries etc. into consideration. (British Bank Association, 2011)

**SWAP rate**

The credit default swap provides a tool to estimate the risk free rate used by participants in the credit market. The way it works, is to take e.g. the five year par yield corporate bond, which may provide a yield of 6%. If then a 5 year protection can be bought for 150 basis points a year, an investor can obtain an approximately risk free return of 4.5% by buying the bond and the credit protection. This is a recognized approach, but it is often difficult to obtain all the information needed in order to firmly apply this. (Hull, Predescu, & White, 2005)
Determine the interest rate – the risk premium

Sizing the market risk premium, the difference between the market’s expected return on the loan and the risk free rate, is one of the more debated issues within corporate finance. Many factors determine the actual return on an investment, some of which can be measured others cannot.

When granting a loan, several factors determine the risk premium, Firstly, an evaluation is made considering if the loan should be granted at all. Secondly, the price should be determined and the interest rate should be settled on.

If all costs are expected to be covered by the interest rate, this should take various factors into consideration:

- The loan characteristics: The loan characteristics and what securities that support the loan is essential when assessing the risk related. This includes the type of loan, the availability of guarantees, the size, the purpose and the loans term to maturity.

- Business risk: The risk of investing into the industry in which the debtor is operating, more general a market risk is also included in this section. But also management and strategic risks linked to the borrowing company is evaluated in this section

- Financial risk: The financial risk incurred by the lender is based on a valuation of the debtor’s financial position – this can be based on a review of the debtor's balance sheet and financial performance. When dealing with cross border loan arrangements, other financial risks connected to the transaction is also currency and the political environment, etc.

- Structural risk: The security of the loans and recovery estimates. (Breggen M. E., 2006)

Credit analysis

Fundamental credit analysis is in its essence a company’s ability to repay and support a loan, it is a set of tools that systematically and comprehensively analyse a company from various aspects in order to assess its financial strength and management performance. In general it includes the following steps:

Assessing the exposure at default (Loan characteristics)

1. An understanding of the intended use of the loan
2. An understanding of the type of financing (loan)

Estimating probability of default (Financial and business risks)

3. A strategic analysis of the company
4. An analysis of the company’s accounting quality
5. An assessment of the company’s financial health based on financial ratios
6. A simulation of future cash flows to evaluate the company’s ability to service debt

*Estimating probability of recovery (Loan characteristics)*
7. Available security and collaterals and its liquidation value in case of financial default

*Estimating the expected loss (Structural risk)*
8. Summarising the results of the credit analysis

The thorough credit analysis should include both an assessment of the company’s accounts as well as an analysis of any related parties or persons with control of the company. A company can be affected by other entities or people who have control of the company, as these may use it to finance other business activities or personal activities not related to the company. This can have great consequences for creditors having a claim with the company. (Petersen & Plenborg, 2012, pp. 271-273)

The reason for the order of the steps above, where the loan characteristics is analysed first, then business risk and then financial risks, after which it is summed up in the last section, is that the type of business a company operates in, can affect the level of the financial ratios. Thus the level of business volatility should be correlated with the company’s financial profile and performance. The final credit rating of a company would be a result of an evaluation of the combined analysis of the country and industry environment, in which the company operates in and the businesses and financial performance of the company.

The loan characteristics is in itself a standalone analysis, but combined with the financial and business risk analysis it provides a foundation to determine if the loan can be supported and repaid and if the strategic purpose changes the current situation of the company. The loan characteristics is the deciding factor as to if the company can be granted the loan. (Ganguin & Bilardello, 2005, pp. 80-81)

*The intended use of the loan*

This step is a general description of the loan; getting an understanding of the intended use and size of the loan. This is to ensure, that the loan or credit facility support the needs that the company has, as well as providing a high degree of security for the creditor. (Petersen & Plenborg, 2012, pp. 273-274)
Strategic analysis of the company
The purpose of the strategic analysis is assessing credit risks related to dispositions in the company. A perfect financial healthy company can, either through management decisions or external factors be negatively affected on cash flows, that eventually can impair a company’s ability to meet its obligations. When analysing the strategic dispositions made in the company, external analysts will only have limited access to data, whereas internal analysts will have a much better basis to start from, when conducting the analysis; making the risk factor of this particular point highly different, depending on the ability to gain access to the right and relevant information. (Petersen & Plenborg, 2012, pp. 275-276)

Analysis of the company’s accounting quality
This is to ensure the validity of the accounting figures available for the analysis. Reported accounting figures in e.g. financial statements can be influenced or even manipulated by the management. This is typically done in order to show a company is more financially healthy, than the underlying economy justifies. This can either be done on order to increase bonuses in the short run, or to hide actual financial problems for the investors.

If an analysis of the reported accounts shows inconsistency in the financial report, adjustments of the accounts may have to be done, in order to have a valid basis to assess the credit risk on. Unreliable accounting figures can indicate a management with a deviating moral and accounting figure, which has to be adjusted based on assumptions. This will increase the credit risk dramatically. (Petersen & Plenborg, 2012, p. 276)

Estimating the credit rating
The above mentioned provides an overview of the exposure at default, the probability of default and an estimate on the recovery prospect. All these steps help evaluating the debtor’s credit worthiness and eventually the risk of providing a loan. These various analyses are valuated up against each other, and a credit rating can be established based on some predefined measurements, for the relevant industry. (Petersen & Plenborg, 2012, pp. 287-290)

The credit analysis include all the above mentioned analysis elements and provide a step by step approach to assess the creditability of a company, taking the various risk factors into account.
The middle blocks consisting of business risks and financial risks addresses all the factors that influence and determine the operating and financial performance of a company, and thus ultimately its credit strength. These are basically the macroeconomic and business environment surrounding the company, held against the managerial and financial strength of the company. This combined can provide a credit rating for a particular company or if assessed together with a loan, an overall risk estimation of that loan for the specific company, eventually leading the risk compensation price for the loan provider.

Each block is described in details below.

**The characteristics of the loan**

Risk here is defined as the characteristics of the loan (its type), including the guarantees provided by the debtor, what the purpose of the loan is and the time to maturity.

**Loan types**

Corporate loans are often issued by banks and take two forms, bilateral and syndications. Depending on the size of the loan, it can be either of them. Most commonly the bilateral is offered to small and medium sized companies, as this is the most simple and only involves one bank. The syndications are a series of banks offering the loan, thus splitting the risk between them, making this the preferred choice offering for larger companies.

Further distinction has to be made between uncommitted and committed facilities. An uncommitted facility is without a fixed re-payment plan and has to be paid when requested by the creditor. This facility is often used when companies need a short term facility, e.g. for payroll
payments. A committed facility is one with a fixed repayment plan, where the borrower is committed throughout the loan period. (Petersen & Plenborg, 2012, p. 274)

In the following 3 types of basic loans will be described as well as a credit facility. The three types of loans described are: Pure discount loans, interest-only loans and amortized loans. These three types of loans are seen as a basis from which the involved parties can agree on various combinations, ending up with a huge variety of loan structures.

**Pure discount loan**

The pure discount loan is the simplest type of loan. With this type of loan the debtor receives a loan with a fixed time to maturity after which a single lump-sum is paid. The profile of this loan is a bullet loan, where both the interest on the loan, as well as the borrowed amount is repaid in the end of the period. An example of this type of loan is the short term treasury bills – a year or less – issued by the U.S. Government. A treasury bill is bought at a price, promising to repay at the time of maturity at a higher amount.

These loans are most common when the loan term is short – usually a year or less, but can be used on long term loans as well.

**Interest-only loan**

The interest-only loan calls for the debtor to pay interests on the loan once every period, and at the time of maturity pay the borrowed amount back to the creditor. This loan type is a bullet loan as well. The profile of this loan indicates that the creditor takes a little less risk compared to the loan above, as there are continuous payments throughout the period, leading to less uncertainty.

**Amortized loans**

An amortized loan is characterized by continuous repayment of the loan amount throughout the period of the loan. The payment profile can change depending on the agreement between the parties, but the two most common are the annuity loan and the linear repayment loan.

The annuity loan is characterized by a fixed amount paid each period. This amount consists of both interest payments and principal reductions gradually lowering the loan principal amount.

The linear repayment loan is characterized by a fixed linear repayment of the principal amount each period plus interest payments on the remaining principal amount. This payment plan will gradually reduce the payment each period, as the principal amount is reduced faster, thus also the base on which the interest is paid. (Ross, Westerfield, & Jordan, 2008, pp. 171-174)
**Credit facility**
A credit facility or a withdrawal service is an open flexible credit, which is available for the potential debtor. It is mostly seen as an open credit facility that can be used for short term financing of activities. The debtor can pay an amount for having the facility available, no matter if it is being used or not, as well as an interest rate on the average loan amount in each period. The credit facility is often capped and is only for conducting day to day business, thus these are often combined with a deposit account as well, especially in multinational corporations having a central treasury department.

**Loan guarantees**
Loan guarantees is something used to secure a claim a creditor has against a debtor. Loan guarantees can either be provided by a third party, such as a bank or by another group company. Depending on the financial strength of the guarantee provider, a creditor can rely more or less on such a guarantee in case of a default.

Another way to establish a guarantee is to provide security in assets held in the company. This could be in the asset, which the loan granted is used to acquire, in inventories or ongoing projects, etc.

**Business risk**
Business risks are all the non solid facts about a company; never the less, it can prove to be more important to have an understanding of the environment in which the company operates, than understanding the financial performance of the company.

In general the business risks that are relevant when assessing the creditworthiness of a company can be summarized in the following underlying categories (Standard&Poor's, 2008, s. 20-22):

- Country risk,
- Industry factors,
- Competitive position,
- Profitability/Peer group comparison.

It depends on an assessment of each situation, how these different categorised are weighted against each other.
Country risk

Sovereign governments can have huge power and influence on the local business environment and corporate entities under their reign. Governments are responsible for the regulatory framework under which companies shall operate, including the legal rights for people and the fundamental rules of engagement for businesses. This provides governments with the opportunity to create environments where business truly flourish and develop rapidly or an environment that makes creation of a successful business almost impossible. Even though the government has a major influence on the business environment, also other factors play a significant role.

Every country has its own characteristics defining the business environment. One of the more used examples are the infrastructure, including educations, work force and its mobility, roads, ports, telecommunication, utilities, buildings, the legal system and its efficiency, financial markets, access to natural resources and the businesses that develop around that infrastructure. The combination of all the country characteristics and the government business policies all influence the country’s economic performance and therefore have a major affect on the individual performance of companies. Ultimately, the degree of corporate success is closely correlated with the availability of resources and how they are used in combination with the governing business regulations.

Usually a distinction can be made between developed countries and development countries. The developed countries support its business and corporate environment through a well developed or well trained work force, strong fiscal and/or monetary policies, a stable currency, a reasonable level of taxes, duties and tariffs, a sophisticated domestic capital market, a strong banking infrastructure and already established infrastructure further supported by a developed industry supporting that infrastructure; making improvements or adaption of infrastructure easily available.

In contrast developing countries or emerging countries often lack the sufficient infrastructure to have a flourishing business environment. That may be because the local government have not been able to utilize the local assets in a manner which support the local businesses or due to other political issues, such as civil war or corruption. It is often seen in countries as Africa, where the level of natural resources are higher than in many other countries, but has been used in a manner, which has not helped develop the local business infrastructure and environment. As a direct consequence, corporations acting out from these countries are estimated to have a higher credit risk, than corporations acting out of developed countries.
Thus, a strong credit evaluation includes the analysis of, to which extend corporations are limited or supported by the government’s laws and regulations, as well as the physical limitations and possibilities in a country. (Ganguin & Bilardello, 2005, pp. 1-6)

**Financial markets**
Companies are often highly dependent of a well developed financial system, offering a wide array of financial intermediaries. Intermediaries that in an effectively manner connects sellers and buyers, and effectively price the transaction. These intermediaries include investment banks, insurance companies, mutual funds, private equity, hedge funds and commercial banks, all important components in an efficient and strong capital market.

**Banking system**
The banking system is also important. A well established banking system provides the needed capital to help finance the initial and ongoing development of a business or an asset. The availability of commercial lending in a market is also important, as accessibility of global public and private markets are not always very good. When analysing the creditability of a company an understanding of the local banking market is also important, as the strength of the local banks are important, weak banks can cause the financial situation of a market to worsen in case of bankruptcy. (Ganguin & Bilardello, 2005, pp. 12-14)

**Macroeconomic factors**
An understanding of the stability or volatility of an economy can be tied to a variety of factors, some which has been explained above. In order to understand an economy, trends in consumer spending, manufacturing and service industries’ growth and productivity, inflation, interest rates and currency valuation, has to be monitored closely. There is no specific answer to how this is used, but when assessing the creditability of a company, a fair estimate of how these various factors influence the performance have to be made on a case by case basis.

Consumer spending is often used as one of the main indicators for how the economy is doing; some economists argue that the ability of the consumers to spend money drives all other factors of the economy. Eventually the consumer-spending patterns are what ultimately influence the demand for products to be manufactured and sold.

**Inflation, interest rates and foreign exchange rate risk**
Countries with high inflation rates often lack stability and then cause unstable production costs, as prices may vary as along with salaries. High interest rates in a country are often related to expensive local borrowing costs. Furthermore, countries with high interest rates can have
difficulties accessing the international capital markets, leaving the local companies with no other borrowing opportunities than the local expensive one.

Foreign exchange rates are important to consider in a company, as if revenues and costs are denominated in different currencies fairly significant risks can be related hereto. Even small fluctuations in currency exchange rates can have significant influence on a company’s operating margins. Thus the vulnerability of the earnings is important when assessing a credit risk. (Ganguin & Bilardello, 2005, pp. 16-18)

**Industry risk**

Industry risk is defined as:

> “The risk of losing revenue or market share or incurring an overall financial decline as a result of industry changes, business cycles, product obsolescence, change in consumer preferences, changes in technology, reduction in barriers to entry, or an increase in competition.” (Ganguin & Bilardello, 2005, p. 20)

Where the previous section focused on the indirect risks affecting a company, especially the country in which it is operating. This section is taking a closer look at the industry in which the company is operating. Without an understanding of where an industry is heading, companies in a booming financial situation can from one day to the other lose their revenue foundation due to a sudden change in the industry.

The three foremost reasons to thoroughly evaluate an industry and not just an individual company within that industry are to:

1. Assess the industry’s short- and long-term sales growth trends and potential, and the events and competitors that challenge these prospects.

2. Assess how strong or weak the targeted company is within that industry, especially in comparison to competitors.

3. Assess potential new entries in the industry, are the industry about to be redefined by a new product or is it vulnerable hereto, and how adaptable is the company under review compared to its competitors.

Different industries pose different risks and opportunities for the companies that operate in them. There are many aspects and attributes that should be examined in order to get a full overview of the risks inherent in the specific industry. The review will be divided into four parts.
and a discussion of the effect that the industry risk has on the creditability of a company (Ganguin & Bilardello, 2005, pp. 20-22):

- Sales and revenue prospects

- Patterns in business cycle and seasonality

- Industry hurdle and barriers of entry

- The effect on credit rating and a company’s creditability.

Sales and revenue prospects

When analysing industries and the potential of future earnings they are usually divided into five categories: A growth industry, a mature industry, a niche sector, a global business or a highly cyclical industry. Each of which are relevant when assessing the future potential of a company in a given industry, not that one type is better than the other, rather to evaluate if the company is able to operate with a profit in the future given the industry type.

A growth industry is an industry with a great potential, it may not have achieved sales in all relevant markets, as they are not yet matured, new products on the way, or new customers come into the industry fast. In general the industry has to grow faster than the average industry and it has to have a significant un-used potential. On the other hand, a mature industry is one that is firmly developed; new products are not introduced at a fast pace anymore. The growth of a mature industry is expected to be somewhat at the average of all industries.

Niche sectors are small narrow industries, aiming at a smaller customer segment. Many times with narrow product portfolios covering very specific needs. These are often handled by smaller companies, because the revenue potential is not big enough for larger corporations. Oppose to niche sector industries, a global business industry is one where trade is done across borders and the same product can be sold across several markets. The challenges for businesses in such an industry are typically related to political issues or logistic challenges. Highly cyclical industries experience wide swings in demand and supply. Business operating here has to have the financial capability to withstand cyclical downturns or have a business portfolio that flattens out the impact of the cyclical industry.

Patterns of business cycles and seasonality

Cycles affecting businesses can either come from fluctuations in the general economy, cycles in the industry or be caused by seasonality. Without exemption every industry is affected by the economic cycle in some way. In order to assess how a company is affected by industry cycles, it is
important to understand what the cycle is and how the other players in the industry react to the cyclic fluctuations.

It is different from industry to industry how it is affected by changes in the economic environment, where some are fairly stable throughout downturns other industries may be hit early or late in the cycle. The important issues to understand is how companies prepare themselves for changes in the economic cycle some carry massive amounts of cash whereas others vary their business portfolio.

**Barriers of entry**

Understanding the barriers of entry into an industry and how these changes over time are important to assess the future revenue base for a company. Barriers of entry can be both financial as well as non-financial and every industry have them and it is absolutely essential that a company meet these “requirements” before being able to conduct business. The higher the costs are to enter an industry, the smaller is the risk that new competitors will enter the market – on the other hand, it may also act as an incentive to develop supplementary products for competitors in order to undermine the industry and gain market shares.

When analysing the entry barriers to an industry it has to come two fold. Firstly, how difficult is it to enter, compared to the expected earnings from entering the industry. Secondly, how solid are the barriers? If the barriers are related to, e.g. a patent that expires within a short period, entry barriers should be considered less important when assessing the expected return in the future.

**The effect on credit rating and a company’s creditability**

The mere fact of operating in a specific industry can have an impact on a company’s credit rating; as “the industry risk assessment goes a long way towards setting an upper limit in the credit rating to which any participant in the industry can aspire” (Standard & Poor’s, 2008, s. 18). This is important if the risks inherent in an industry establish a certain amount of volatility or create a particular performance barrier, that cannot be overcome, then that is a limit in the credit quality.

This does not mean that companies cannot be valued higher than the industry rating, but the analysis should value how inflexible an industry can be, determine what companies can and cannot achieve and determine what it takes to succeed or fail. Using the industry leaders as a benchmark can give an understanding of what it takes, as these by definition set out the trends, providing an understanding of the business strategies and performance possibilities in the industry. Companies performing significantly better than what is expected in the industry could “break out” of the industry rating, but often the rest of the competitors will follow and redefine the industry. (Ganguin & Bilardello, 2005, pp. 21-46)
**Company-specific business risks**

After having established an overview of the effect that the industry has on the company and the local business environment in general, an understanding of the company and the specific business risks that are related hereto is needed. This is not a financial analysis; rather it is an analysis of the stability of the company’s revenue streams and cash generation, and therefore how reliable the company’s ability to repay its financial obligations in the future.

This section acts as an supportive analysis to the financial risk analysis, as it is more backward looking and uses data from previous years to assess coming years, combined with the business risk analysis a more accurate estimate of the future revenues can be established – or at least the uncertainty surrounding it.

The analysis will be compiled by both internal and external factors of the firm. It is a combination of the company’s competitive position in the market, which is mainly influenced by the company’s ability to handle buyers, suppliers, industry competitors, potential new entrants and substitute products. The type and magnitude of competition, and the most important competitive factors, can and do differ industry by industry. When assessing the credit quality of a company only those key industry differentiators should be assessed as it will also be easier to measure against the company peers in the industry.

The company-specific business risk analysis can be divided into four main topics

- Competitive position and competitor analysis
- Market position, sales growth and pricing
- Business consistency and stability
- Regulations

**Competitive position and competitors**

The competitive strategy of a company, defines its strengths and weaknesses relative to those of its business competitors. Getting an understanding of the differences is the key in order determine how successful the company will be in its business activities. Michael E. Porter on how best to win business competition, from his book Competitive strategy:

“The goal of competitive strategy for a business unit in an industry is to find a position in the industry where the company can best defend itself against these competitive forces or can influence them in its favour. Since the collective
strength of the forces may well be painfully apparent to all competitors, the key for developing strategy is to delve below the surface and analyze the sources of each. Knowledge of these underlying sources of competitive pressure highlights the critical strengths and weaknesses of the company, animates its positioning in its industry, clarifies the areas where industry trends promise to hold the greatest significance as either opportunities or threats.”

Porter’s five forces is a model explaining the different factors influencing the competitive situation that a company is in.

![Five Forces Model](image)

**Figure 6. The Five Forces Model**

Using this model, should give an understanding of the direct threats against companies conducting business in the industry, as well as give picture of their position in the market relative to each other. (Petersen & Plenborg, 2012, pp. 189-190)

Depending on the different factors, relative to the competitors in the industry, a company’s potential future earnings can be assessed as, the lower the number of threats the higher the chance of maintaining or improving the current financial performance.
Market position, sales growth and pricing

Understanding the products and their strength is also important. Understating a products market position can help determine if the company will be able to generate consistent sales demand, to achieve the product’s potential sales growth and to maintain pricing power. Further a company’s ability to sell its products to as broad a customer base as possible, ensures that firstly more products can be sold, and the volatility of the consistency of the products ability to generate sales are decreased. Secondly, the bargaining power of the company will increase with a greater potential for higher prices and higher profit margins.

The successful companies understand the strengths of their products and know the demands of their customers, and therefore they become consistently better at delivering what the market wants or needs. This means, that a company many times retrofit the quality or other attributes of the product to meet customers’ demands. It can however also serve as an indicator to how deep an understanding a company has, of the market and its ability to respond to changes – constantly keeping or improving its market position.

Business consistency and stability

The consistency of a business, measured by revenue, units sold, profitability and cash flow, are important when analysing a company.

Companies achieve business stability by having either a strong competitive position supported by quality products or services with strong enough market positions to withstand shifts in the business and general economies, or significant diversity and managerial skill to navigate through economic shifts. But not only the products of a company can give stability, also the breadth of an organization can be an important factor which brings stability to an organisation. But the sheer mass of assets does not make it in itself; it is rather how these assets are utilized in order to generate stability. Size does matter; it can generate savings through economies of scale, ability to withstand fluctuations in the economy etc. Further, large corporations tend to have operational diversity as well. Operational diversity could be several lines of business, products, manufacturing plants, distribution outlets, or even types of customers. The benefit is that it helps smoothening out the effects of different cycles that the company is affected by.

Two other ways that stability can be obtained is through financial diversity and asset flexibility. The financial diversity is the cash generation in the company, for example if the company has several independent revenue sources. Whereas the asset flexibility is an indicator of if the company has assets that can be sold in order to get cash in times of need, avoiding that the company ends up in a situation where it cannot meet its financial obligations.
Regulations

All industries are governed by some regulatory rules, some industries more than others. These should not have any impact on the competitive environment as all companies are playing by the same rules, so that it in the end comes down to the individual company’s business strategy. But regulations can affect the stability of a company if they are changed often, or if a market that was heavily regulated before is suddenly given free.

All in all, there are many factors determining the stability of a company and the industry it operates in, and that has to be taken into consideration when analysing the company and its creditability. (Ganguin & Bilardello, 2005, pp. 47-63)

The management factor

One of the factors that are the hardest to control for external creditors is the management factor. It is extremely important when assessing the creditability of a company as it is related to a high degree of uncertainty. It is everything from the management’s decisions affecting the strategy, their ability to implement strategic changes and execution thereof. This should constantly be overseen by credit analysis.

While country qualities, the business environment and the quality of a company’s assets all set the framework and the path for success or failure, it is up to the management team to keep the company on that path and to utilize its assets effectively within the given environment to generate the best operating and financial performance possible.

The uncertainty surrounding management is also important. The management and its decisions just evaluated can be gone by tomorrow and replaced by a new management with a new strategy. Important financial facts can be hid away from the public, providing a better picture of the company than what is actually the case, or they can take a bad or “unlucky” decision; all affecting the company’s performance in the future.

The management should be evaluated based on its performance, which is its operational and financial successes and failures, but also its ability to take intelligent risks. The amount of risk a management is willing to accept when deploying its strategies is important. Basically establishing an analysis of the level of risk taken, what the return of investment has been and if the return matches the risk, i.e. if it has provided a reasonable pay-off.

Even though it is hard to distinguish between what profits are generated by the management and what would have been generated anyway despite of the management. The profit indicators still act
as a good evaluation of the management. But getting a further understanding of the management can be gained through public meetings, personal meeting and through the annual report. Personal meeting can provide an understanding of the personal characteristics of the top management and eventually getting a deeper insight into how they deal with different situations such as strategic challenges, financial downturns etc.

A business leader, who are open and accessible to answer questions, disclose transparent information, discuss strategies and other activities openly and who are up front about challenges and problems, often becomes more trusted. This is because they provide information which is useful for making credit decisions.

Corporate governance is basically how the company is managed. Managements with high integrity, manages the company with integrity in regard to business ethics, internal control systems, the corporate culture it nurtures, its business strategies and the value it delivers to shareholders, creditors, employees, business counterparts and customers. History shows, that some business leaders have dubious intentions. Thus a combined analysis of both the actual performance of the management, as well as the more human aspect is important. Good corporate governance is not likely to rate a company higher on its credit rating, rather companies with lacking corporate governance are likely to be rated down, as there will be several unknown factors and an untrustworthy management.

The thing about the management is, it can act open and disclose a lot of information, but creditors never know if they have gotten it all. The management factor will always be connected to a lot of uncertainty, as it cannot be controlled in any way.

Financial risk
In this section the financial performance and strength of the lending company is tested. It is not only based on the availability of cash or other assets in the company, but a range of factors determining whether it is expected that the debtor will be able to repay the outstanding loans and interests, further it provides an indication of a company’s ability to withstand shocks. The risks that companies face, that can influence the credit worthiness of the debtor, are numerous and often interrelated (Stickney, Brown, & Wahlen, 2007, p. 284). The analysis of the financial risk within the company supports the business risk analysis in many ways. It proves the value and quality of the company and act as an indicator as to if it has sustainable growth rates and if it is a stable company. It determines if the management in the company has been successful.

Listing some of the risks affecting a company includes, but is not limited to:
### Table 1 Risks related to companies

<table>
<thead>
<tr>
<th>Source</th>
<th>Type or Nature</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International</strong></td>
<td>Changes in Exchange rates</td>
</tr>
<tr>
<td></td>
<td>Host government regulations and attitudes</td>
</tr>
<tr>
<td></td>
<td>Political unrest</td>
</tr>
<tr>
<td></td>
<td>Expropriation of assets</td>
</tr>
<tr>
<td><strong>Domestic</strong></td>
<td>Recession</td>
</tr>
<tr>
<td></td>
<td>Inflation or deflation</td>
</tr>
<tr>
<td></td>
<td>Interest rate changes</td>
</tr>
<tr>
<td></td>
<td>Demographic changes</td>
</tr>
<tr>
<td></td>
<td>Political changes</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>Technology</td>
</tr>
<tr>
<td></td>
<td>Competition</td>
</tr>
<tr>
<td></td>
<td>Regulation</td>
</tr>
<tr>
<td></td>
<td>Availability and price of raw materials</td>
</tr>
<tr>
<td></td>
<td>Labour and other input price change</td>
</tr>
<tr>
<td></td>
<td>Unionization</td>
</tr>
<tr>
<td><strong>Company-Specific</strong></td>
<td>Management competence</td>
</tr>
<tr>
<td></td>
<td>Strategic direction</td>
</tr>
<tr>
<td></td>
<td>Lawsuits</td>
</tr>
</tbody>
</table>

These risks are all measured and managed internally by companies, but depending on a company and its management’s willingness to assume risks, companies can be more or less exposed towards fluctuations in the various risks. Various accounting standards require companies to discuss these risks and how they deal with them in the notes of the financial report; also how companies are exposed to and how the financial performance of the company can be affected by these are to be highlighted. Some of the more extensive reports are the Form 10-K which is required by the U.S. Securities and Exchange Commission for all publicly held companies. These reports give a comprehensive summary of the financial performance and risks assumed and exposure by the company.

Such reports combined with market data can be used to estimate the financial risk related to a debtor. Companies does disclose a lot more information today compared to the past, information that can be used by analysts to assess various risks related to a company. (Stickney, Brown, & Wahlen, 2007, pp. 284-287)
Basically when focusing on the financial risk of a company it can be boiled down to four key areas; the balance sheet, profitability, cash generation and financial flexibility.

- **The balance sheet** identifies the company’s financial obligations and the asset quality that support those obligations. The debt-equity structure in itself does not provide sufficient in-depth analysis to determine the credit quality, but comparing debt obligations to the company’s ability to generate cash of the assets is vital.

- **Profitability** is a good measure for the viability, the value and the performance of the business, especially when measured against competitors.

- **Cash generation** is important as it explains something about how well the company generates cash in order to meet its financial obligations. Comparing the ability to generate cash with the need for cash, including its use for repaying obligations, is considered the most important component of a credit analysis.

- **Financial flexibility** is a company’s ability to withstand fluctuations in business activities. Accessing cash and mitigating obligations is critical when business environment shifts, especially for weak credits.

These four areas are examined in the financial statement and act as building blocks, individually their use is of limited value, but putted together they can provide a comprehensive picture of the creditability of a company. The correlation is explained in the following sections. (Ganguin & Bilardello, 2005, pp. 80-82)

**The balance sheet**

As a rule of thumb a company is more aggressive if the balance sheet is debt-heavy, whereas it may be considered conservative if the balance sheet is asset-heavy. One thing to keep in mind is
that the balance sheet is a snapshot in time, and unless compared over a period of for example three or five years, it can be misleading.

When analysing the balance sheet it should serve two purposes, the first thing that has to be done is to accurately determine the total amount of debt obligations. The challenge is that business and accounting complexity, as well as creativity in developing new forms of financial securities, this makes identification of the various debt obligations in the company difficult.

The second purpose is to measure the aggressiveness or how conservative the company is being operated. This is measured as a combination of the debt level in the company valued against the quality of the assets. The best way to determine if the value of the assets are of good or bad quality is to measure them against other companies operating in the same industry. As it is with all ratio analysis, comparison is the best way to determine appropriate leveraging for an entity, that is, through a comparison of companies’ asset quality and leverage.

Any item on the balance sheet that has some obligations attached to it in the shape of repayment is a financial obligation. It is classified as debt if it has an established repayment schedule and maturity, fixed interest streams, and mandatory payments that cannot be deferred or ignored.

Regarding the asset value it is difficult to determine the correct value, as there can be and often is a difference between book value and real value. That is, different assets have different degrees of surety of value. As the most reliable assets in term of surety of value are cash and short-term financial investments. Whereas accounts receivables and inventories are connected to a higher degree of risk, as these has a greater degree of valuation and credit risk. Property, manufacturing plants and equipments is more difficult to determine, these are the operating assets generating the cash flows in the company. Thus valuation of such can be depended hereof, as a mix of expected future revenues and real value.

The operating assets can easily be attached with an under- or overvaluation. For example, goodwill acquired in a recent acquisition can be heavily over valuated, whereas well-depreciated assets, e.g. utility assets, are often undervalued on the balance sheet. Thus, it is important to understand the accounting behind, which drives the way assets are booked. (Ganguin & Bilardello, 2005, pp. 87-91)

**Profitability**

The profit potential of a company is a key factor, since it determines the quality of the business undertaken by the company and eventually if the company is able to meet its obligations.
High performing companies within earnings usually have better access to external equity capital and higher stock evaluations. This is also why management keeps a close eye on the profitability. However, from a credit worthiness standpoint, the absolute level of income does not act as an indicator for the credit quality. Indicators on profitability in a credit context is ratios such as profit margins and returns on investment, which are measures used to evaluate performance and to attest to the value of the business. Also growth rates, in revenues and earnings, can be used to validate management’s performance, which drives its strategies.

As it was with the balance sheet, single ratios are a snapshot. When evaluating the profitability a combination of past performance and evaluation of forecasts has to be performed in order to analyse a trend. Trend analysis has to be tied to the assessment of the business environment and the company’s market and competitive position.

Peer analysis is important, as it put each ratio into a reference frame. The earning profile may be different from industry to industry; peer analysis within an industry can provide an indicator on how the company is performing and how the profitability ratios should affect the credit analysis. Furthermore, the trend in the profitability of a company can indicate how the general industry is performing. Differing trends may serve as an indicator of the competitive strength or position in the market.

Analysing the management’s influence is also important when assessing future performance. When analysing the volatility of the business under different scenarios, key focus should be placed on management’s actions during these different scenarios. Even small changes in the business and economic cycles, or in the competitive environment, can have serious impact on the company’s profitability. When understanding the risk tolerance and financial policies by the management, it can serve as an indicator on its potential future actions if the business environment suddenly changes.

Profitability is more than just financial ratios, as it should also take the future into consideration. This is why analysis is also great for evaluating the management’s strategies as well as the degree to which those strategies are consistent with the industry expectations. (Ganguin & Bilardello, 2005, pp. 91-94)

**Cash flow adequacy**

Analysing the cash flows in a company is basically mapping its number one asset, its ability to generate a surplus of cash from its activities. The business and industry risk analysis set the parameters for size, growth and stability of the company’s business in combination with the profitability analysis. The Balance sheet analysis provides an analysis of the overall debt obligations
for the company and sees it in relation to the total assets of the company. Putting it all together in the cash flow analysis estimates if the company generates enough cash to meet its obligations.

The definition of cash flow is:

“Net income adjusted for all noncash items factored into the income number, including depreciations and amortization, deferred taxes, write-offs, special charges, gains and losses on asset sales, foreign exchange gains and losses and equity earnings or losses from joint ventures.” (Ganguin & Bilardello, 2005, pp. 94-96)

The cash flow analysis can be divided into two stages, firstly is the company able to generate cash in the short run or the short-term liquidity risk. This is where the near-term ability to generate cash to service working capital needs and debt service requirements. Whereas the long-term solvency risk, analyses if the company is able to generate cash internally or from external sources to satisfy plant capacity and debt repayment needs. (Stickney, Brown, & Wahlen, 2007, p. 288)

**Short-term liquidity risk**

The short-term liquidity risk relies on the operating circle of the company. Where there is a span between when the money is spend and earned; it firstly has to buy the raw materials, produce the finished good, pay the workers etc. The outflow of cash is often before the finished good is handed over to the buyer, who then gets a 30 to 60 credit on the purchase, before any cash is paid to the manufacturing company. This delay leaves a gap between expenditures and income – and is a potential risk for liquidity shortages in the short run.
If a company can delay all cash outflows to suppliers, employees, and other creditors until the payments has been received from its customers, as well as receive more cash than it must disburse, the company is not very likely to experience any short-term liquidity shortage, thus having a low short-term liquidity risk.

Short-term liquidity problems may also arise from long-term solvency difficulties. If a company has a high level of debt, requiring periodic interest payments, these payments can also affect the short-term availability of cash and could cause problems if the operating cycle only generates revenues enough to cover the daily operations, but not enough cash to service the debt as well. (Stickney, Brown, & Wahlen, 2007, pp. 289-296)

**Long-term solvency risk**

When analyzing the long-term solvency of a company, the company’s ability to generate more money in the long run is evaluated. It is a way of valuing if the company, when obtaining money from a lender and reinvests that into projects or business activities, is able to generate higher returns than the after-tax cost of the borrowing, the common shareholder benefit. As long as the company provide sufficient returns on its assets, the company will continue to obtain more debt in order to generate higher returns for the common shareholders; hence a higher financial gearing increases the return for the shareholders. An increased gearing on the other hand also increases the possibility that the company will not be able to support its debt and repay the amount borrowed to the principal, which may eventually lead to an increase in credit and bankruptcy risk and by that
the incremental cost of borrowing is likely to also increase. When the price for money increases for the company the common shareholder return declines. Thus examining the long term solvency risk focuses on the company’s ability to support loans and interests based on its capital structure.

Companies may wish to appear less risky in order to lower their costs of external financing or to avoid violating debt covenants in existing borrowing arrangements. Thus companies can attempt to construct a financial structure keeping debt of the balance sheet. This can be done through leasing arrangements etc. (Stickney, Brown, & Wahlen, 2007, pp. 296-300)

**Liquidity and financial flexibility**

The whole idea of making a credit analysis is to determine if the company is able to meet its obligations when obtaining a loan. A company has financial flexibility if, during times of need, it has options for obtaining cash and thereby avoiding a payment default.

The two main areas of this section are, firstly, to identify the situations in which having financial flexibility is most important and then determine the amount of the cash requirements that are causing the liquidity concerns. Secondly, to estimate the amount of cash, the company can actually raise when necessary.

Cash-needs often become highly time-sensitive, so liquidity analysis requires a clear understanding of a company’s immediate and projected financial position. Thus establishing a reliable analysis requires an understanding of the business environment, its industry sector and the nature of its financial relationships, as well as the management’s business strategies, financial policies and tendencies.

Liquidity needs can be created by a number of factors and can occur in all companies, no matter their quality. The financial flexibility is very important, as it is considered the last line of defence for a company in financial distress. Even though it mostly happens to companies with a risky profile – a low creditworthiness – all companies can end up in a situation where liquidity is needed in order to continue the operations.

Many factors can hit even financial healthy companies, making the financial flexibility of the company important for the creditors with receivables in the company.

Both internal events as well as events occurring outside the sphere of the company play an important role, which can suddenly create a need for additional cash. This is why it is important to makes sure that companies have access to additional cash if such an event happens.
Internal events that can affect the liquidity could be a bullet loan reaching its maturity, causing a need for extra cash. However if managed properly, a company’s debt maturity is monitored closely and debt maturities are spread over many years without any substantial peaks in any particular year. Other significant financial obligations, including those that are off-balance-sheet, which also needs to be considered, are:

- Extraordinary capital expenditures,
- Potential acquisitions,
- Payments associated with operating leases,
- Required pension fund contributions,
- Income taxes,
- Contingent liabilities, such as lawsuit settlements, letters of credits, support agreements, subsidiary guarantees and obligations arising from partnerships or affiliated arrangements.

All these things have to be taken into consideration, even when assessing highly creditworthy companies.

Other relevant factors are the number liquidity sources or the strength of those available. Having a greater variety of credit sources and a meaningful capability to access that money are considered valuable in terms of credibility. Basically there are three ways that a company can gain access to additional liquidity. It can generate it internally, reduce cash outlays, or obtain it from external parties.

The internal resources available in a company are the easiest accessible; these are often available as a surplus of cash or short-term marketable securities. However, often companies consider this as a last resort when there is a sudden liquidity need. The second internal cash reserve is cash generated from operations. This is assessed in the cash flow analysis, where not only the stability or volatility of the cash generation is analysed, but also the discretionary nature of the capital expenditures and the flexibility in dividend policy, and therefore the variability of free operating cash flow.

Often companies does not hold enough internal cash to meet the demand in peak periods, thus they will have to acquire additional liquidity from external sources. This could be commercial
papers for short-term liquidity, or the company can be supported by a committed bank credit facility, which is generally considered a reliable source of liquidity.

**Structural risk**

The first part of this chapter focussed on the credit risk inherent to companies and their environments, this part focuses on the environment surrounding the debt if a company can no longer fulfil its financial obligations. In order to make an assessment of the recovery prospects, an understanding of the pre-insolvency and insolvency procedures that is specific for the credit instrument needed. This is done by evaluating the treatment of creditors in insolvency regimes. Secondly, an assessment of the priority ranking, which defines the order in which the creditors will be paid in insolvency.

**Insolvency regimes**

Even though there can be significant differences between insolvency regimes, they all strive towards balancing the interest between debtors and creditors. On one side, debtors have to be protected against over aggressive creditors seeking preferential treatment in times of difficulty; and on the other hand creditors demand a process to protect the investment that they have made.

In general there are three factors which influence to which degree an insolvency regime is creditor friendly. That is:

- The degree of influence or control that creditors can exert during the distress in an insolvency regime
- Security enforcement, when debt is secured
- Legal risks that may be specific to particular jurisdictions.

Depending on the underlying agreement creditors can be granted more or less of the above mentioned points. Creditors are highly dependent on the local legal environment, as if it does not support creditors in their demands, the securities may prove difficult to use. But not only the efficiency of the legal system plays a role, also how the legislation is formed is important. In some countries the court makes all the decisions for firms in financial distress, whereas other countries the creditors may have an opportunity to take over the firm in order to realise as many assets as possible, giving them a position higher than other stakeholders.

Besides the insolvency regime, the priority ranking and how it is enforced is also important. Once a company becomes insolvent, all stakeholders jockey to try and recover as much as possible. This is all creditors having a claim in the company, whether it is suppliers, employees, the government,
banks, inventors or even shareholders. In most jurisdictions the bankruptcy laws divide creditors into classes determining the order in which they can make their claims. In general firms’ creditors can be divided into five classes:

![Priority Ranking Diagram]

**Figure 9 Priority Ranking**

**Senior Debt**

Senior debt is characterised by its priority over other loan facilities and are often secured via a lien against the assets of the borrower.

The privileged creditors will be paid immediately. This stage is usually regulated by law in the individual jurisdictions, meaning that simple creditors cannot be in this category. Creditors in this category include claims like the minimum fees paid for insolvency professionals, administrators, receivers and court expenses. In some jurisdictions also certain wages and tax liabilities can be included.

When dealing with secured debt, the underlying rationale is simple, if the debtor is unable to meet its financial obligations and defaults, the creditor can repossess and realize the collateral with the security provider. However, when the security is never any better than the strength of the security provider, thus a thorough analysis of the financial strength hereof is important. This should not only be in relation to the claim of one creditor but the total claims that may be directed at the security provider in case of a default. (Ganguin & Bilardello, 2005, pp. 200-242)

**Subordinated Debt**

Subordinated debt is characterized by having a better position than shareholder funds, but a worse position than the senior debt. This is often defined as unsecured debt, which carries higher interest rates or the repayment structures can be structured differently from what is normally seen. Subordinated debt is usually divided into two categories second lien and mezzanine.
Second Lien

Second lien debt is more expensive than senior debt and, like senior debt, interest is typically cash paid.

The use of second lien debt began to increase in 2004. It became very popular and is attractive to borrowers because it is cheaper than more traditional mezzanine finance and attractive to lenders seeking higher returns than those available in normal corporate debt markets. The availability of second lien debt reduced significantly in 2008.

Mezzanine

Mezzanine is more expensive than second lien debt and interest is often split into two elements: a cash paid interest element and non cash interest element (accrued interest).

Shareholders and investors fund

Funding raised through external investors will typically consist of both common equity and shareholder loans. Given the subordinated nature of shareholder loans, banks and other financing institutions are, based on what seems to be a general custom in the industry, to consider all loans and credits which are not with banks as equity. This may include vendor notes, PIK-notes, and shareholder loans, etc.

External financing comes with significant transactions costs, which are typically based on the transaction size; hence the company will incur less transactions costs, if the transaction size is lower. Furthermore, shareholder loans do not impose additional covenants on the business and improves flexibility for future changes to the capital structure.

Recovery prospect

All this add to the creation of a recovery prospect in case of default. This is done by establishing scenarios on how a default can be caused. This basically summarizes parts of the above mentioned points, even though it as such, does not act as a conclusion to the credit analysis. Usually these scenarios can be boiled down to the following four:

- Too much debt, in a good/average business
- Poor business with average finances
- Poor business with poor finances
- External and internal shocks
The first three are based on the business itself and the information can be extracted from the analysis of the business and its financials, basically listing how the company is doing in its operations compared to the cash flows – often this can be estimated through a peer analysis. The last scenario on the other hand is linked to external factors, which can cause a company to go bankrupt. It can be sudden changes in the economy, fraud, accidents, natural disasters etc.

The chances that a company goes bankrupt and is unable to meet its financial obligations linked to the structural risk makes it possible to estimate the recovery prospect and returning a risk related to this. (Ganguin & Bilardello, 2005, pp. 243-269)
Chapter 4

Measuring and pricing a credit risk
4. **Measuring and pricing credit risk**

In this section the different risks related to credit services are put together and an overview of how to establish a credit rating, as well as how it is used to establish prices on debt instruments.

**Credit ranking**

As described in chapter three there were some key building blocks when conducting corporate credit analysis. This was based on the debt instrument and structure, the business risks, the financial risks and finally the structural risk. In order to establish a reliable credit rating system, it has to be applicable not only to one industry or sector, but it has to provide an understanding that, no matter which sector or industry it is applied to, it provides a clear link between the risks and rewards. Market participants utilize credit ratings to help them determine the appropriate risk premium when a new debt instrument is issued; banks generally utilize an internal scoring system to calculate the capital allocation that is suitable for a particular risk and to monitor their portfolio; investors make use of ratings both for pricing and for benchmarking purposes among various fixed-income instruments.

From a conceptual standpoint, the credit rating assigned to a given company act as an easy to use summary for the possibility that a company will not be able to service its financial obligations in the future. It works as a score awarded to each of the different risk elements forming the base for a combined credit rating. Each risk will be weighted in order to make sure, the most important factors have the greatest impact on the final rating. A standardized scoring system is not possible to make, as the factors are changing constantly with the changes in the risk environment. However, some general rules can be established in order to understand the construction of corporate credit rating.

Establishing the credit rating is a three step approach, where the financial risk and business risk are evaluated first, then is the structural risk and lastly the characteristics of the loan, if applicable.

<table>
<thead>
<tr>
<th>Business risk</th>
<th>Very low risk</th>
<th>Low risk</th>
<th>Moderate risk</th>
<th>High risk</th>
<th>Very high risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial Risk</th>
<th>Very conservative</th>
<th>Conservative</th>
<th>Moderate</th>
<th>Aggressive</th>
<th>Very aggressive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

*Table 2 Business and Financial risk scoring matrix*
By using a credit scoring matrix, each relevant risk can be given a grade, which is later used to calculate a weighted average. The credit scoring matrix consists of each identified risk factor, divided into risk elements weighted based on their importance and relevance in relation to critical success factors.

When establishing a matrix evaluating the credit rating of a company it consists of a 2 step method. Firstly the company relevant risks are assessed along with the surrounding risks. This means, a combined score for the business risk and financial risk is established and then the structural risk is evaluated.

**Business risk and financial risk assessment**
Assessing these two together provides a combined rating for the company on a stand-alone basis.

**Business risk**
There are three factors, which together form the overall business; these are showed in the figure below.

![Figure 10 Business risk elements](image)

The company evaluated in this example is a manufacturing company in a third world country. It is important to have a strong management, with a good network in order to handle political issues as well as gain easy access to transportation and harbour facilities when exporting the manufactured goods. The scoring matrixes below are measured on a scale ranging from 1 to 10 with 10 being bad or inefficient, leading to a high business risk and 1 being good or efficient, leading to a low business risk.
Chapter 4

Industry risk

The company is cost effective and is good at adapting in a market which changes rapidly and have many diverse requirements. The company is less good at integrating new tools and machinery which is required to produce some products, this is however considered less relevant as many products are fairly standardised and the changes hereto are often related to appearance and not functionality, which requires special or new tools and equipment.

Overall the industry risk factor is evaluated to be of medium significance as the produced products are used across many sectors and in many markets; however a global financial crisis can affect demands quite dramatically.

<table>
<thead>
<tr>
<th>Industry risk</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keys to success</td>
<td>Weighting</td>
</tr>
<tr>
<td>Cost position</td>
<td>50%</td>
</tr>
<tr>
<td>Diversity</td>
<td>30%</td>
</tr>
<tr>
<td>Integration</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3 Industry risk credit scoring matrix

Company specific risk

As the company is situated in a third world country management network and their ability to use their network is important, the company’s market position is less important as well as the flexibility of the company. The management factor is important, since poorly used network can completely lead to a stand-still in production due to political implications.

As this has a great impact on the company’s' ability to run effectively without interference from the government and other powerful elements in the country, this is considered a high risk element.
Measuring and pricing credit risk

Company specific risk  High

<table>
<thead>
<tr>
<th>Keys to success</th>
<th>Weighting</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management network</td>
<td>60%</td>
<td>7</td>
</tr>
<tr>
<td>Market position</td>
<td>20%</td>
<td>5</td>
</tr>
<tr>
<td>Flexibility</td>
<td>20%</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>6,8</strong></td>
</tr>
</tbody>
</table>

Table 4 Company specific risk credit scoring matrix

Country risk

The country risk for this company is mostly related to how the local government affect business through interference and corruption. As this third world country is corrupt the company gets high ratings in all three categories. The overall country risk significance is on the other hand rated low, this is because if a company is managed according to the local “traditions” (all briberies are paid), this should not affect the company as such.

<table>
<thead>
<tr>
<th>Country risk</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keys to success</td>
<td>Weighting</td>
</tr>
<tr>
<td>Government stability</td>
<td>40%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>10%</td>
</tr>
<tr>
<td>Corruption</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 5 Country risk credit scoring matrix

Summarizing the scores

The scores are then summed up and weighted relative to their significance in order to rate the business risk.
### Business risk combined

<table>
<thead>
<tr>
<th>Risk</th>
<th>Significance</th>
<th>Weighting</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry risk</td>
<td>Medium</td>
<td>30%</td>
<td>0.99</td>
</tr>
<tr>
<td>Company specific risk</td>
<td>High</td>
<td>60%</td>
<td>4.08</td>
</tr>
<tr>
<td>Country risk</td>
<td>Low</td>
<td>10%</td>
<td>0.74</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100%</strong></td>
<td><strong>5.81</strong></td>
</tr>
</tbody>
</table>

*Table 6 Business risk credit scoring matrix*

This establishes a business risk rating which is used in the final rating.

### Financial rating

The financial rating only consists of one risk assessment, based on several factors. It is derived from the financial analysis where the analysed company’s financial performance is tested and the expectations for the future are assessed. This is a combination of the soft factors, such as the management strategy and financial policy, which should be incorporated into the financial projections. Additionally if there are any overriding issues such as poor accounting quality or questionable corporate governance, this should also be taken into account when moderating the scores.

The four key measurements of the financial risk are based on a company’s profitability, balance sheet, cash flow adequacy and financial flexibility. When evaluating the scores and weighting them against one another, the company’s ability to generate sufficient cash flows and its flexibility should be weighted highest. Usually a scoring matrix is constructed like this:
### Financial risk

<table>
<thead>
<tr>
<th></th>
<th>Weighting</th>
<th>Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td>10% - 25%</td>
<td>6</td>
</tr>
<tr>
<td>Balance sheet</td>
<td>10% - 25%</td>
<td>5</td>
</tr>
<tr>
<td>Cash flow adequacy</td>
<td>10% - 50%</td>
<td>6</td>
</tr>
<tr>
<td>Financial stability</td>
<td>30% - 70%</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>5.1</strong></td>
</tr>
</tbody>
</table>

**Table 7 financial risk scoring**

In the example, the scores reflect average to weaker-than-average credit measures, and satisfactory financial flexibility. The weighting applied is 15% for both profitability and balance sheet scores, 40% for cash flow adequacy and 30% for financial flexibility.

**Weighting the business risk and financial risk scores**

The coming step is to determine a proper weighting between the business risk score and the financial risk score. There is no specific rule on how to do this, but a good rule of thumb is to say, the worse the credit, the higher emphasis should be placed on the financial scores. Basically to ensure that, when things go bad, focus are shifted towards how likely the company is to meet its next financial obligation. Also industry stability plays a role, when supply and demand are stable and future cash generation is fairly easy to assess, a smaller emphasis should be made towards financial risk, thus allowing a higher level of financial risk.
### Combined risk assessment

<table>
<thead>
<tr>
<th>Business risk</th>
<th>Business risk weighting</th>
<th>Financial risk weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low risk</td>
<td>50% - 70%</td>
<td>30% - 50%</td>
</tr>
<tr>
<td>Low risk</td>
<td>50% - 60%</td>
<td>40% - 50%</td>
</tr>
<tr>
<td>Moderate</td>
<td>40% - 50%</td>
<td>50% - 60%</td>
</tr>
<tr>
<td>High risk</td>
<td>20% - 40%</td>
<td>60% - 80%</td>
</tr>
<tr>
<td>Very high risk</td>
<td>10% - 20%</td>
<td>80% - 90%</td>
</tr>
</tbody>
</table>

**Table 8 Business and financial risk weighting**

Evaluating the two ratings calculated above, weighting it so that it is operating in a moderate business risk environment with an average financial risk weighting as well, a 60% financial risk and 40% business risk weighting is considered fairly acceptable.

### Corporate credit score

<table>
<thead>
<tr>
<th></th>
<th>Scores</th>
<th>Weight</th>
<th>Weighted scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business risk</td>
<td>5,81</td>
<td>40%</td>
<td>2,32</td>
</tr>
<tr>
<td>Financial risk</td>
<td>5,1</td>
<td>60%</td>
<td>3,06</td>
</tr>
<tr>
<td>Risk score</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rounded risk score</strong></td>
<td><strong>5</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 9 Corporate credit score**

**Recovery prospect**

The final credit score is then evaluated in combination with the recovery prospect, which also includes an evaluation of the insolvency regime. This will have an effect on the credit score, if the expected recovery chances are 30%, in case of a default, this would have to have a significant impact on the risk assessment. (Ganguin & Bilardello, 2005, pp. 279-289)
Pricing of credit risk

In this section a short description of how credit ratings and scorings are translated into risk premiums. The method used by the international rating agencies are all based on the same principles as stated above, where all risks are evaluated and weighted in order to establish a credit score, a credit score which is then translated into a credit rating. Credit ratings as used by the rating agencies are somewhat similar, with smaller differences in the total number of ratings. Standard & Poor’s and Fitch have 22 different ratings and Moody’s is operating with 18.

<table>
<thead>
<tr>
<th>Description</th>
<th>Standard &amp; Poor’s</th>
<th>Fitch</th>
<th>Moody’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest quality</td>
<td>AAA</td>
<td>AAA</td>
<td>Aaa</td>
</tr>
<tr>
<td>High quality</td>
<td>AA+, AA, AA-</td>
<td>AA+, AA, AA-</td>
<td>Aa1, Aa2, Aa3,</td>
</tr>
<tr>
<td>Adequate payment capacity</td>
<td>BBB+, BBB, BBB-</td>
<td>BBB+, BBB, BBB-</td>
<td>Baa1, Baa2, Baa3</td>
</tr>
<tr>
<td>Likely to fulfil obligations; ongoing uncertainty</td>
<td>BB+, BB, BB-</td>
<td>BB+, BB, BB-</td>
<td>Ba1, Ba2, Ba3</td>
</tr>
<tr>
<td>High-risk obligations</td>
<td>B+, B, B-</td>
<td>B+, B, B-</td>
<td>B1, B2, B3</td>
</tr>
<tr>
<td>Current vulnerability to default</td>
<td>CCC+, CCC, CCC-,</td>
<td>CCC, CC, C</td>
<td>Caa, Ca</td>
</tr>
<tr>
<td></td>
<td>CC, C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Default</td>
<td>D</td>
<td>DDD, DD, D</td>
<td>D</td>
</tr>
</tbody>
</table>

Table 10 Credit rating agencies' scale
These ratings are used in the industry both as a benchmark for debentures, bonds and notes. Further lending institutions often use pricing grids where credit ratings are tied to an interest rate. (Ganguin & Bilardello, 2005, pp. 289-293)

In general when translating credit ratings into risk premiums, two things has to be taken into account, which affect the price of the loan. Firstly, the lender’s cost of administering and servicing the loan and a premium for the exposure to default risk. In the table below a spread on risk premiums measured over a two year period across different credit ratings can be seen.

<table>
<thead>
<tr>
<th>US treasury, 10-year</th>
<th>AAA</th>
<th>AA</th>
<th>A</th>
<th>BBB</th>
<th>BB</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.38%</td>
<td>1.9</td>
<td>2.4</td>
<td>3.6</td>
<td>4.7</td>
<td>11.2</td>
<td>13.1</td>
</tr>
<tr>
<td>3.38%</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
<td>1.3</td>
<td>2.6</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Table 11 US industrial 10-year spread (two-year high/low) to US Treasury, 10 year (Petersen & Plenborg, 2012, p. 291)/Bloomberg

The spread covers both the added risk premium as well as the costs related to administration of the loan, as these vary between the different actors in the financial market, thus they cannot be separated from the credit spread. As it can be derived from the table, the spread increases as the rating level decreases – this could act as an indicator to investors requiring a higher return when ratings are devaluated. The large deviation of spreads within a rating reflects the uncertainty of the credit market due to the financial turmoil in 2008 and 2009, also it is an indication of the fact that spreads are not constant over time. (Petersen & Plenborg, 2012, pp. 291-292)
Chapter 5

Determining comparability
5. **Determining comparability**

**Comparability analysis**
Performing a comparability analysis aims at identifying the value adding characteristics surrounding a transaction. These characteristics are then used to identify comparable transactions in which the value creating elements are considered the same, thus the remuneration connected to these transactions are considered.

**Establishing the arm’s length transaction**
According to the OECD guidelines and OECD model tax convention article 9, the arm’s length principle is based on:

“[Where] conditions are made or imposed between the two [associated] enterprises in their commercial or financial relations which differ from those which would be made between independent enterprises, then any profits which would, but for those conditions, have accrued to one of the enterprises, but, by reason of those conditions, have not so accrued, may be included in the profits of that enterprise and taxed accordingly.”

In other words, based on the characteristic of the transaction a price has to be established as if the transaction had occurred between unrelated independent enterprises. It is substance over form; it is the economical significant activities and responsibilities. This means, that the transaction is the starting point, and without changing the transaction a price should be established.

This taken into consideration the arm’s length price should be based on the mere characteristics of the transaction and what could have been obtained between two unrelated parties. Taking the highlighted section of article 9 into consideration one should, when determining the characteristics of the transaction, do it in such a way, as if the parties are unrelated.

This means that the separate entity approach is a supporting principle, but all relevant characteristics of the transaction should be taken into consideration when making the comparability analysis. This can also be followed by section 1.34 of the OECD Guidelines, where:

“[…] evaluating the terms of a potential transaction will compare the transaction to the other options realistically available to them, and they will only enter into the transaction if they see no alternative that is clearly more attractive.”
Determing comparability

Used in such a way that, if prices are not on arm’s length, then one of the parties would have an alternative that would be more attractive. This can be interpreted as the parties involved in the transaction should act in an economical rational manner, meaning that one part, should when possible aim for as high a price as possible, whereas the other part should argue for a lower price when a more attractive possibility is available to it. This means, that the bargaining power of the involved parties has to be taken into the evaluation, when establishing the arm’s length price.

Parallel to this section 7.13 of the OECD Guidelines states, related parties should not be considered to receive an inter-group service when it obtains incidental benefits attributable solely to its being part of a larger concern. This is also in line with the interpretation of section 1.34, as a benefit arising from the relationship, cannot be controlled by the beneficiary, neither does the related party have an option not to take the benefit. Thus there would be no economic rationale behind for a beneficiary to pay for something they would be granted anyway.

**Comparability analysis**

Performing a comparability analysis based on a fictive loan, strives at clarifying potential differences that are on loans respectively between independent unrelated parties and related parties. If all aspects of the loan are the same, are there any differences that are only present due to the fact that one of the transactions are between related parties. The loans are assumed to be in the same currency and across the same markets, furthermore they have the same time to maturity, interest payments and loan structure.

As all aspects of the loan are the same, the characteristics of the loan are not causing any comparability issues. Just like the contractual terms, economic circumstances and business strategies are expected to be the same, both between two related parties and unrelated parties. Leaving these comparability factors out, only the functional analysis can vary in the responsibilities undertaken, assets employed and risks assumed.

**Functional analysis**

Evaluating the functions undertaken by the parties on both loans is fairly straightforward. They get cash from other sources, administer it and borrow it to other companies. Thus the functions undertaken do not give any reason, what so ever, to make an adjustment. Furthermore the assets employed in both loans are the same, and does not make any need for an adjustment.

The risks related to a loan, must be considered the main driver for the price. As the price is determined as an interest rate – an actual price relative to the size of the loan – the interest rate increases when the risk for the lender increases. As described earlier we operate with two different types of risks, the business risk and the financial risk. Where the business risk describes the risks
related to the immediate surroundings affecting the company and the “soft” factors, which are less easy to measure, the financial risk is related to the financial statement and expectations for the future cash flows.

<table>
<thead>
<tr>
<th>Business risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country risk</td>
</tr>
<tr>
<td>Industry risk</td>
</tr>
<tr>
<td>Company-specific business risk</td>
</tr>
</tbody>
</table>

Evaluating the different risks affecting a company, thus also the price on the loan, many of these factors are external and applies equal to both the controlled transaction and the uncontrolled transaction. Country risks are external and cannot be affected through an ownership of the borrower; this also applies for the industry risk. Many aspects of the company-specific risk are also generic and cannot be affected; however one aspect that can be affected is the management factor.

The same goes for the financial risk, as a great part of the analysis is build upon a review of the financial performance in the past, which is then used to establish the expectations for the future, part of this risk in uncontrollable in both the controlled and the uncontrolled transaction. However, one major part of assessing the future cash generation is an evaluation of the management and the strategies. These are more controllable in a controlled transaction than in an uncontrolled transaction.

**The management factor and asymmetric information**

The management factor is important, as the management controls the strategies of the company including the aggressiveness of the financial and investment policies. However, it is not all parts of the management factor which can be controlled by the parent company; fraud where the management strives to increase their own gain on the cost of the company is a risk that has to be considered in both the related and the unrelated transaction.

Control of the management and the way the management conduct business and control the company can only be obtained if the lender has full transparency and can be ensured that all information has been displayed. This is asymmetric information (Lazear & Gibbs, 2009, pp. 7-8), the general issue is when one side has important information that the other part does not have. This is also relevant when the level of information cannot be evaluated, meaning that the part depending on the information for an investment decision cannot be sure of what information has been putted forward and what has not been. This creates a clear benefit for lenders involved in a
controlled transaction, as the risk of asymmetric information leading to more risky investment decisions will be considerably lower.

A lender involved in a loan arrangement with a controlled party will have access to all relevant information, such as management incentive payment structures, strategies, investment decisions, and potential future customers or lack thereof etc. There is a chance that information could be held back by the management towards a controlling party, in order to improve their personal wealth, but the risk hereof will be limited as the controlling part will have an overview of any incentive schemes which may direct management’s decisions away from displaying this information.

Since the ability to control information and have a greater insight into a company’s strategic and managerial decision processes significantly affects both the financial risk and the business risk. This aspect must be considered significant and could have an effect on the overall risk assessment, thus also the interest rate on the loan. As the arm’s length price should be based on the actual characteristics of the transaction between the related parties, this should be taken into consideration when analyzing the setup. This however, must depend on an assessment in each individual case, as the needed information for the credit assessment may change. Very simple companies in stable markets are potentially less affected by strategic positions taken by the management, whereas other companies are very dependent. But never the less insight and control can affect the risk assessment, in a direction which can lower the risk associated with providing the loan.

**Economical rationale in transfer pricing**

In recent times the OECD method has been discussed and challenged. According to the OECD all transactions can be priced as a starting point. Only in two circumstances should a transaction not be recognized, but these should only be used in rare and exceptional circumstances. Firstly, when the economic substance of a transaction differs from its form, in this case the parties’ characterisation may be disregarded and the transaction may be re-characterised in accordance with its substance. The other circumstance arises, where the economic rationale behind the transaction differs from what would have been adopted by unrelated parties, behaving in an economically rational manner, cf. OECD Guidelines section 1.65. In recent time tax authorities’ around the world has started to use section 1.65 of the OECD Guidelines much more. Especially in Norway, Sweden, Australia, the Netherlands and in the USA, the authorities has questioned transactions and started to redefine those, rather than price them.

The question asked is regarding the economic rationale behind the transactions and if these would occur in the open market, if this is not the case should they be priced or changed? As
discussed earlier, a transaction should be seen as if it had been between two unrelated parties, and any characteristics to the transaction should be adapted to fit this when establishing the price. This however does not imply that the transaction itself should not be recognized. One of the more recent cases where this question was discussed was in a Norwegian Supreme Court verdict from 2007 (HR-2007-1145-A).

**Statoil ASA case HR-2007-1145-A**

The case was between the Norwegian Tax Authorities and Statoil ASA. Statoil had financed one of its affiliates with two loans, one from Statoil Coordination Center ("SCC"), a Statoil company situated in Belgium and Statoil ASA in Norway.

Statoil Angola was a development company, engaged in the oil industry in Angola. These companies are engaged in an earlier stage than actually oil extraction and on a later stage than investigation companies. Meaning that there are still a significant risk which there may not be any oil extraction, by that no operations in the company in the future. In Norway, the thin capitalization rules for oil companies state that development companies can only be financed with 80% debt.

The structure was that SSC had provided a loan on market conditions for Statoil Angola; this loan covered the 80% of the capital structure of the company. Based on the thin capitalization rules, Statoil ASA gave an interest free loan to Statoil Angola covering the remaining 20% of the capital.
structure, arguing that the loan could not bear any interest as it exceeded the maximum debt capacity in the company, according to the Norwegian thin capitalization rules. The Norwegian Tax authorities stated on this background, that loans provided should always be carrying an interest rate on it, in order to compensate the lending company for the risk related to the loan. Based on this they argued that Statoil ASA had a too low income, due to the lacking payments of interest rates in the years the loan was running.

The court argued

In the case the court has two main arguments when reaching their verdict. Firstly, they have their interpretation of the OECD Guidelines and secondly their interpretation of the actual transaction undertaken. The grounds for the judgement were:

[43] ““Armlengdeprinsippet går som nevnt ut på at forretningsmessigheten av den aktuelle (kontrollerte) transaksjon skal undersøkes ved at den bliver sammenlignet med en tilsvarende transaksjon mellom uavhengige parter. Dette forudsetter at det finnes et marked for den ytelse det er tale om. I OECDs retningslinjer bliver dette presisert. Det bliver her fremholdt at det er en forudsætning for at forretningsmessigheten av en transaksjon skal kunne undersøkes ved bruk av armlengdeprincippet, at det finnes sammenlignbare transaksjoner mellom uavhengige parter. Dersom det ikke finnes noe marked for den aktuelle ytelse, må disposisjonens forretningsmessighet avgjøres ut fra en vurdering av disposisjonens innhold og hva de aktuelle selskabenes interesser tilsier.”

and

1 “The arm’s length principle is defined as the commercial reasoning’s behind a transaction should form the foundations for the comparability with a transaction between unrelated independent parties. This would require that the transaction exists on the open market. In the OECD Guidelines this is specified. It is stated that it is a premise for a transaction to be tested according to the arm’s length principle, that transactions between unrelated independent companies, which are similar to the tested transaction, exists. As if no such transactions exist and thereby also a market for such a transaction does not exist, the dispositions behind the commercialization of the transaction have to be evaluated, as well as the implied companies’ interests in the transaction.”
This means that as the equity situation is in such a shape, a loan should never have been provided. The case further emphasise that the transaction, and the characteristics should take into account the involved parties interest.

What can be derived from this case is first and foremost, that the characteristics of the transactions are what determine the nature of the transaction, thus how the remuneration should be structured. Secondly, the court argues that if the transaction would not occur in the open market, the involved parties’ interests have to be evaluated in order to evaluate the transaction and its nature.

**Loan pricing and characteristics**

This case is a bit special, as it is the tax payer who argues that the debt should be classified as equity. But the point made by the court is important when determining which factors affect the pricing of loan arrangements between related parties. In order for a loan arrangement to be classified as a loan, the economical rational behind the transaction has to be in place. Furthermore this should both count for whether a loan would be issued and the structure and size of the remuneration.

**Internalization benefits**

If the internal transaction has been recognized the next question could arise, which relates to benefits arising from being a part of a group. The separate entity approach as applied in article 9 of the model tax convention is used to ensure a profit allocation based on terms and conditions as if entities are operating as individuals. This is to ensure a right allocation of profit to be taxed in each jurisdiction. However, groups may have possibilities or benefits that individual company does not.

The issue at hand is that the separate entity approach and the comparability analysis. The OECD Guidelines state in section 1.6 that:

> “By seeking to adjust profits by reference to the conditions which would have obtained between independent enterprises in comparable transactions and comparable circumstances, the arm’s length principle follows the approach

---

2 The interest Statoil ASA has in providing the loan to Statoil Angola, is first and foremost an expectation of getting a return from the operations and not specifically from the loan. This position is particular clear when the situation of.
of treating the members of an MNE group as operating as separate entities rather than as inseparable parts of a single unified business”

This states that the comparability test should take the circumstances into consideration, if they can have an effect on the price formation. Internalization benefits can greatly affect the price of a transaction, as showed in the discussion on the effect of having an increased insight, as a consequence of the relationship between the involved parties.

Further section 7.13 in the OECD Guidelines state that:

“[...] enterprises should not be considered to receive an intra-group service when it obtains incidental benefits attributable solely to its being part of a larger concern, and not any specific activity being performed.”

Meaning that benefits received just from being a part of a MNE should not result in an intercompany transaction for which the beneficiary should pay. These two sections held against the separate entity approach implies that pricing of intercompany transactions should be priced as if it occurred between unrelated parties, adjusting for any benefit obtained from being in a group. This is also the conclusion reached by Wittendorff, where he concludes that the aim of Article 9 in the OECD model convention is not to create a neutral tax base between groups and independent entities; rather it is to prevent movement of income in-between group companies (Wittendorff, 2009, pp. 506-508). However, it can be discussed if this supports the idea that transactions should be supported by the involved parties acting in an economic rationale manner – as separate entities. This would of course depend on the type of benefit.

In some recent cases from Canada and Sweden, the benefits arising from being part of a group is discussed in relation to determining the arm’s length price on intercompany guarantees and loans.

*Her Majesty the Queen and GE Capital Canada (2010 FCA 344)*

This case is from 2010, where GE in the USA had charged GE in Canada for explicitly provided financial guarantees, the amount which had been charged between 1996 and 2000 summed up to 136 million CAD. The Minister of National Revenue disallowed the deduction on the grounds that the fees provided no value to the taxpayer. The argument was that the benefit of the explicit guarantee did not surpass the benefit from the implicit guarantee that existed by virtue of the parent-subsidiary relationship and that therefore no payment for the explicit guarantee was required. The case was in its first instance in the Tax Court of Canada, which concluded with the tax payer, that the explicit guarantee provided created additional value above the implicit guarantee. This was proven by applying a “yield” approach, stating that the benefit obtained was
above or equal to the price of the guarantee. The appeal case was dismissed, but the Federal Court of Appeals, did state that all circumstances relevant to the pricing of a transaction should be taken into consideration (Referring to the GlaxoSmithKline case (2010 FCA 201)), they did on the other hand not take a position regarding the use of the yield approach for evaluating guarantee fees. The FCA only noted that if the payment made for the guarantee did not exceed the benefit obtained, the pricing of the explicit guarantee would be either on or below the arm’s length price.

_Diligentia AB and Skatteverket (Regeringsrättens Dom 2483-2485-09)_

In this recent case from Sweden the Swedish Supreme Court ruled in line with the GlaxoSmithKline and GE cases that all circumstances should be taken into consideration when pricing an intercompany loan. They argue that the mere fact that the two companies are related, does affect the pricing of the loan. In a related party situation, the control that a parent company can excise over its subsidiary does prove an insight which lowers the risk of providing the loan. Main argument from the court is:


Based on this, the loan provided from the parent to its subsidiary is being priced as if it was a secured loan. In this case the court provides a little more guidance as to how the relationship between the companies affects the pricing. Even so, the assumption which the deduction has been based on must be considered questionable. They argue that the loan should be priced as if it was a secured loan, even though no security has been provided, this will lead to a too low arm’s length price.

In the GE case, the court concluded that an explicit guarantee was worth more than an implicit guarantee – as the benefits obtained were higher. This is also in line with the fact, that an explicit

---

3 "Of central importance in the pricing of a loan is the risk that the lender cannot fulfill its financial obligations related to the loan and the level of security needed. For a parent company providing a loan to its subsidiary other premises counts than for an independent loan provider. Where the parent company can excise control of the subsidiary, the external loan provider will only have partly insight into the lender. The external loan provider can also be uncertain on the intentions of the parent company in case of a default, if it is willing to support its subsidiary financial in case of default.”
guarantee commits the guarantee provider to support financially in case of default, whereas an implicit guarantee has no commitment for the guarantee provider.

**Interpretation of case law**

The cases described above is only a little view of the actual cases in the world, national tax authorities are testing the arm’s length principle and adjustments are taken to court. Further national courts, in different jurisdictions are referring to each other when interpreting the arm’s length principle (PwC, October 2011). This in itself could help in developing a uniform interpretation across the globe, but as shown, the conclusions vary significantly in-between jurisdictions. This is clearly a sign that no or only very little guidance is available for the courts when dealing with this area.

The general conclusion is, that the relationship between the related parties does affect the pricing of controlled financial transaction, but the size or value of the effect has however not been clarified. The Supreme Court in Canada has discussed what should be included when estimating the arm’s length price as in the GlaxoSmithKline case, further in the GE case they gave some interpretation of the value of the benefit from being in a group. The value here is that an implicit guarantee is in place, but its value is lower than an explicit guarantee. This is contradictorily to the Diligentia case, where the court argued that the price of a loan between related parties should be priced as if it was a secured loan. Not taking the fact into consideration that the parent company has no obligations in case of default.

None of the cases provide any guidance what so ever, as to the pricing, it is more related to what should be included when assessing the price on an intercompany loan. Taking this into account all relevant factors should be evaluated, one major issues is that the courts only take a one sided perspective. They mainly focus on the receiver of the service and not the provider and how it would act if dealing on arm’s length conditions.

**The arm’s length principle on the move**

As it can be seen the arm’s length principle is moving away from the separate entity approach and towards a situation where the relationship between companies can greatly affect the pricing. Even so, the tax authorities offer little guidance on how the relationship should be priced. The central question to be asked is, who should have the taxing right of benefits derived from being part of a larger concern? In some cases, where this can be measured economically, such as an implicit guarantee, there is no question that the beneficiary should not pay for this service. In the GE case, the payment could be traced back to an economical gain, which was above the implicit guarantee.
We can divide the characteristics of a transaction into three levels, based on the cases described above.

<table>
<thead>
<tr>
<th>Stand alone approach</th>
<th>Implicit guarantee approach</th>
<th>Full recognition approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing based on standalone credit rating</td>
<td>Pricing based on a standalone credit rating adjusted for the effect of the implicit guarantee</td>
<td>Pricing based on the group credit rating or a standalone credit rating with full parent guarantee for the loan</td>
</tr>
<tr>
<td>All group benefits recognized in the loan providing company</td>
<td>A split of group benefit between loan provider and loan taker</td>
<td>All group benefits allocated to the loan taking entity</td>
</tr>
</tbody>
</table>

**Figure 12 Allocation of group benefits in loan arrangements**

The stand-alone approach will be disregarded, as none of the cases support this view. Furthermore, as it disregards some important characteristics which affect the pricing of the loan, it is not regarded as in-line with the principles set out in the OECD Guidelines.

Where the implicit guarantee approach is mostly based on the conclusions in the GlaxoSmithKline case and the GE case, the full recognition approach is based on the Diligentia case.

When determining which of the two approaches to apply, a discussion on the economic rationale behind the transaction has to be taken into consideration. Realising that the separate entity approach should be applied in such a way that the involved parties will seek to maximize their profit by entering into the transaction – not taking tax benefits into account. In OECD Guidelines section1.34, companies will evaluate a price based on other options realistically available to them.

How does this affect the pricing? Economical theory would state that companies would lower their prices until the level of their marginal costs – in cases of a loan; competition would lower the interest rate until it just covers the risk of providing the loan. If a player on the market is able to lower its price (interest) more than the other players, this player will over time drive the others out.
of the market. (Pindyck & Rubinfeld, 2005, pp. 264-268) This is not completely the case when dealing with related parties, as a related party is experiencing lower risk associated with the loan than an external provider. However, as the related loan provider does not have an incentive to drive out the other players, it will seek to optimize its profit, i.e. increasing the interest rate to market price, the price that can be matched by other players. In this case the market price would be an interest rate based on a standalone principle, minus the benefit of an implicit guarantee, which would also be available for external loan providers. This means adjusting prices below the market rate; that is, if prices are lowered to a level which reflects the risk taken by the related loan provider, based on the insight they have as related party, would not be considered economical rational. By pricing loans based on implicit benefits available to all market participants, will both reflect the bargaining power of the companies, by that recognizing the separate entity approach, as well as allocate profit in an market efficient manner.

The Diligentia case leaves no comments as to why the full benefit should be allocated to the loan taker, even though it is the loan provider that has created that benefit. Furthermore the lender is receiving a benefit, which it otherwise would not be entitled to, as the alternative would be to pay a higher rate to an external loan provider.

**Concluding remarks**

There is no doubt, that there is a move away from a pure stand-alone principle, but taking the group benefits into consideration, should as such not result in an arm’s length price below the alternative cost of dealing with a third party. An entity which is a part of a group should not pay for something from which it does not benefit; on the other hand it should not receive a better price than it was otherwise entitled to. There has to be some sort of split of profit, from the benefits arising from being in a group. But just like the benefits which cannot be measured economically, such as economics of scale, the benefit should mainly be attributed to the entrepreneur/principal, i.e. the parent. As it has the most bargaining power.

An approach could be to identify the value of the group benefit and allocate this based on a pre-defined allocation key – like a profit split approach. This method must however be considered highly unlikely, since not two transactions or companies are the same, thus leaving little chance that a standardized formula can be applied across all transactions. As the functions, risks and assets involved should somehow reflect the split of profit. On the other hand a full allocation of the benefit to either the loan taker or loan provider would not resemble a correct arm’s length price, as the parties would not be acting as separate entities individually seeking to optimize their profit.
It can be concluded that all aspects of the transaction, if these would be relevant for both an unrelated and a related part, should be taken into consideration when establishing an arm’s length price. Meaning that the loan taker should not pay less for the loan, than what it would pay to a third party, just because it is a part of a group. Thus the arm’s length price must be equal to the alternative cost of the same loan, if provided by an independent unrelated party.
Chapter 6

Selection of transfer pricing method
6. **Selection of transfer pricing method**

Selection of the transfer pricing method always aims at finding the most appropriate method for any particular intercompany transaction, at which an arm’s length price has to be determined, cf. section 2.2 in the OECD Guidelines. For this purpose the selection process should include a review of the strength and weaknesses of the selected transfer pricing method and a review of the appropriateness of the selected method in relation to the tested transaction taking the functional analysis into consideration. Furthermore an assessment of the available information and material for a comparability analysis has to be considered, including an assessment of adjustments needed in order to eliminate material differences between them.

**Selecting the transfer pricing method**

Selecting which transfer pricing method will return the most accurate arm’s length price depends on the individual transaction and the level of information. However, the most used for pricing interest rates on loans is the CUP method. But other methods can be used as well, depending on the individual situation and circumstances.

**Comparable uncontrolled prices**

As this is the most direct method, it is usually applied when reliable information is available. When used for interest rates on loans it is mostly used by conducting a benchmark on loans with the same characteristics. This method is very strong to use when other third party arrangements are available that can be used to form the price basis. This is normally done by conducting a benchmark analysis and establishing a range in which the transfer price is situated.

**Resale minus method**

This method is not seen as an appropriate method as a loan is not channelled through the loan taker. This method is mostly applied when the functions undertaken can be characterized as standard functions. As the main value driver in loan arrangements is the risk undertaken, this method is not considered relevant for pricing loans.

**Cost plus method**

Using this method for pricing intercompany loans should be based on the actual costs incurred for the company providing the loan and adds a sufficient mark-up, equivalent to what an independent unrelated company would earn. There are two approaches, either the company can obtain a loan from a third part and pass it on to an associated party, only adding a mark-up for the costs related to administration of the loan. However, the mark-up has to reflect the actual risk related to such a service. The mark-up would have to be benchmarked against other loans, it can,
however, prove difficult to separate administration costs and the mark-up added for risk, as these vary between different companies.

The other approach is to calculate the actual cost of capital for the company providing the loan. When the cost base is calculated an appropriate mark-up, reflecting what would have been used in the open market, can then be added to establish an arm’s length price.

This method is considered appropriate, but very hard to use in practise. The mark-up which should be added could be identified through a benchmark, but excluding the administration costs which is included in the interest rates identified in the benchmark, can prove difficult, or even impossible. Probably making the CUP method a better alternative, as it identifies a full price for the loan.

**Transactional net margin method**

This method focuses on remuneration of a function adding value to a transferred good, thus identifying the profit which should be made on the transaction for the selling part – in this case the company providing the loan. Applying this method, would be very similar to applying the cost plus method. However, as this method is mostly used for identifying low risk arrangements – as it identifies a fixed margin for a product or service – it is not considered appropriate. The main driver for the remuneration on loans is risk and many different profit levels would have to be identified as most loan arrangements would be different in their characteristics. This method is more appropriate when several transactions, containing the same or similar products, are priced in a bundle.

**The profit split method**

This method is only relevant if the transferred service or good returns a profit when sold on the open market; the profit generated is then split between the involved parties in such a way that it reflects the functions, risks and assets “invested” by each part. It is not both parties that are adding unique valuable contributions to the transaction; furthermore a profit is not generated from the transaction itself.

As a profit is not made directly from the loan, there is no profit to split. On the other hand, if the loan can be granted at a lower price than what the borrowing company could get on the open market – pricing of such a loan could be to split the saved cost. This would still require a markets price, in order to identify the benefit obtained, in order to split it in-between the parties.
Pricing the transaction

Based on which transfer pricing method that has been selected there are several ways to determine the correct transfer price. These are stated below, with a discussion on the different strengths and weaknesses related to each method. The methods listed below are benchmarking, which is generally accepted throughout the OECD countries. Whereas the last two methods are based on Danish case law and general practise, they are the Bank offers and the discount rate + 4%. Further in Denmark the Loan margin method is used, but as stated above, this is similar to the benchmarking approach, as it is a traditional transaction method.

Benchmarking

Benchmarking interest rates is a two step approach, firstly a stand-alone credit rating for the borrowing entity is calculated, and this can be done in RiskCalc a tool provided by Moody's. Secondly, an interest for industry bonds with same maturity as the loan and credit rating as the borrowing entity is benchmarked; this is usually done in a database provided by Bloomberg.

Determining a standalone credit rating

Determining a credit rating in RiskCalc is based on three factors, which constitute the basis for the credit rating.

- Country of the tested party
- Operating industry for tested party
- Financial structure of the tested party

This is a simplified approach for determining a credit rating, even so, RiskCalc is a widely used tool, as both financial institutions, tax authorities and other professionals use it. Based on a company's financial statement for the year in which the loan has been agreed and the year before, including the size of the loan which is being tested, a financial credit rating is established. This credit rating is then adjusted for an industry factor and a country factor, ultimately returning a credit rating for the tested party.

Pricing the loan

Bloomberg is a database of interest rates on publicly traded industry and government bonds. When a credit rating is established an extract can be made from Bloomberg returning all industry bonds on a given date issued by companies with the same credit rating and time to maturity. Given that industry bonds are mostly used in the USA, these bonds are most often used as the benchmark. This does then require an adaption, as the interest rate includes both the US risk free rate as well as the risk premium. Thus the risk-free rate in the US has to be subtracted from the
rate and the risk free-free rate from the country, in which the borrowing entity is situated, has to be added.

**Benchmarking the loan**

As stated before, benchmarking is considered a strong approach, as it is widely accepted in OECD countries. This method is a costly manoeuvre, and establishing the credit rating is connected to some uncertainty, as it is a standardized approach. However, when a benchmark is done correctly, it provides the tax payer with a strong defence against transfer pricing adjustments.

**Bank offer**

An offer from a bank could possibly be used as a price indicator on a loan; however, as there has not been an actual transaction it can only be used as an indicator. Firstly, a bank would probably know that this would be used for tax purpose, questioning how great an effort they would invest into determining an interest rate. Further if the offer for loan has not been through a credit committee this could add further doubt to the validity of the offer, as a reliable indicator for an arm’s length price. As it is not ensured that the loan would be granted and cannot be considered a final offer.

The strength of this method is that it is a cheap way to establish an arm’s length price in a loan. It is however very unlikely that a bank will use the same effort when testing the credit worthiness of a company if it is only for tax purposes and not an actual loan that has to be provided. If the method will be accepted by both the Danish and foreign tax authorities depends on if the bank offer is so close to be an actual transaction as that it can be. Basically, all terms have been agreed upon and it is only missing the final signature of the parties.

**Discount rate + 4%**

In Denmark several discussions on the usage of the discount rate + 4% has taken place, previously it was often used by the tax authorities to establish an arm’s length rate. Today on the other hand it is used less frequently. It is based on a verdict from 2006 (made public in 2008) (TFS 2009, 232) and in a reply to a question asked the Danish minister for taxation (Question 356 as of May 30th 2006), the Minister of Taxation underlines that the Danish Tax Authorities can only use this approach when all other options are explored. The Danish Tax Authorities has to make an individual assessment of each case, and cannot just apply the Discount rate + 4% as the market rate.

This does, however, not mean that the discount rate + 4% cannot be applied, it has later been stated in a Danish verdict from 2010 (TFS 2011, 29) that the Danish Tax Authorities may have to
evaluate loans which are too small, to benchmark. The information is simply not available in the databases. If this is the case the pricing method applied could be the discount rate + 4%.

Some discussion has been put into if the discount rate + 4% could be used as a safe harbour approach. This however does not seem to be the case, unless the loan is so small, that the outcome of a benchmark analysis would not justify such a resource heavy exercise. (Berning, 2008, 1144)

**Summarizing the selection of transfer pricing method**

Taking the points about the characterisation of the loan, as discussed in chapter five, into consideration the most applicable method must be the benchmarking method, a CUP. It may however prove difficult to establish a discount based on the relationship between the parties, as this may differ significantly based on the financial strength of the parent company. Secondly the offer from a bank could prove important as well, as a bank would include in its assessment the implicit guarantee, when making its risk assessment. But the method used alone, cannot be considered very strong as there is not an actual transaction.

Applying the cost plus or loan margin method, is another way to go about it. But as discussed above, it is difficult to establish a stand-alone risk premium, without the administration costs. Again, this would require a benchmark, from which both the administration costs as well as the risk free rate would have to be subtracted.
Conclusion
Conclusion

The purpose of this thesis was to identify which factors influenced the pricing of a loan and how this was affected by the relationship between related companies, furthermore a discussion on the relevant pricing methods in order to identify the most appropriate method.

In order to do so, it was necessary firstly to analyse the OECD Guidelines and the principles of the Arm’s length principle from article 9 in the OECD model tax convention. Based on that, a description of the various aspects of determining credit risk associated with loan arrangements were used to identify the main value drives behind pricing of loans. This was done in order to identify major differences between a loan provided between two related parties and two unrelated parties.

It was shown; that a credit assessment should include both external factors and internal factors, and based on a comprehensive analysis of a company’s financial performance, business environment and management a credit rating could be established.

The principles on corporate credit analysis were then used to analyse the significant differences in loan pricing between independent companies related companies. As it was shown, a significant difference in the insight and control could affect the pricing, as it could decrease the risk related to providing a loan. Through an analysis of the principles set forward in the OECD Guidelines and recent case law, the impact that a relationship between related parties, should have on intercompany pricing on loans was concluded upon. Recent trends in case law shows, that all factors affecting prices should be taken into consideration, when determining comparability in order to establish an Arm’s length price.

The analysis concluded that the relationship between the parties should be taken into consideration. If the separate entity approach was not to be disregard, each party involved in the transaction should act in a way which would maximize their individual profit, by exploring secondary opportunities realistically available to them. This means, that any benefit arising from the relationship, should only be reflected in the pricing, if this is also available towards third parties. The arm’s length price on a loan between related parties should be based on a stand-alone credit assessment of the loan taker, taking any implicit guarantee into account, which is in place as a result of the group relationship. The value or effect of the implicit guarantee will depend on the parent company’s financial performance and history in relation to support its subsidiaries in financial distress.
Lastly, a review of pricing methods was done. In this section different pricing methods was under review and based on the analysis in the previous chapters a benchmarking method was most appropriate. However, this method would still need to take the effect that the relationship between the involved parties would have on the price. Further some discussions on the guidance offered by the Danish Tax Authorities were made. Here it was concluded that bank offers could be used in relation to a benchmark analysis, as an offer from a bank would reflect the price on a loan, including the effect that the relationship between the related parties have on the pricing. It can however, not be used as a standalone approach as there has not been an actual transaction.

Thus it can be concluded, that assessing prices for transfer pricing purposes should take a more holistic approach and acknowledge the broader business dynamics and market realities, without disregarding the substance of the tested transaction.
**Perspective and further research**

Transfer pricing and financial services are something which only recently has been brought to the attention of the tax authorities around the world. Thus it is also an area where many companies and authorities are making a best effort in order to test the regulations and find a compromise. As the lack of case law and guidance in this area has created a jungle for multinational companies when trying to be compliant in several countries, there is clearly a need for common ground in this matter.

As transactions are becoming still more complicated, and relationships between companies can prove still more valuable as they become more integrated, determining arm’s length prices in the future may prove more difficult than ever before. An in-depth study of the effects of the relationship between related parties could be useful in order to explore this area further. It could be done on as a case study, in order to highlight both business rationale and benefits arising in a less theoretical manner. Furthermore, as the internalization benefits are determined research into the costs of identifying and pricing these could be necessary, in order to see if the costs would be high compared to the actual effect.

Another aspect is the negative effect additional control and insight can have. What happens if the subsidiary has a better credit rating than the parent company, how is the arm’s length price affected then? Can being part of a group have an effect on the credit rating in a negative direction, compared to a pure stand-alone principle?

Furthermore, the legal environment in transfer pricing is taking an interesting direction. Lately a verdict in the Norwegian Supreme Court (DELL), referred to a French Supreme Court Case (Zimmer) on commissioner structures. As there is a movement in the understanding of the arm’s length principle and how to price intercompany loans, we might see in the future that references are made to case law from other jurisdictions. This in itself can help to establish a common understanding, but there is also a great risk that courts may use them differently ultimately creating an even more uncertain environment.
Bibliography

Books and articles


**Case law**

Zimmer成型  Conseil d'Etat, March 31, 2010, no. 304715 and 308525

GlaxoSmithKlein  Federal Court of Appeal, July 26, 2010, no. 2010-FCA-210

GE Capital Canada  Federal Court of Appeal, December 15, 2010, no. 2010-FCA-344

Dell  Høyesterett, December 2, 2011, no. HR-2011-02245-A

Statoil Norway  Høyesterett, June 26, 2007, no. HR-2007-1145-A

Diligentia  Regeringsrätten, June 28, 2010, no. 2483-2485-09

TFS 2011, 29  Østre Landsret, September 08, 2010, no. SKM2010.607.OLR

**Web pages**

British Bank Association
www.bba.org.uk

Danish National Bank
www.nationalbanken.dk

Danish Courts
www.domstol.dk

Federal Court of Appeal Canada
www.fca-caf.gc.ca

Karnov group
www.karnovgroup.dk

KPMG
www.kpmg.com

Organisation for Economic Cooperation and Development
www.OECD.org

PricewaterhouseCoopers
www.pwc.com/tp

Professor Damodaran
www.damodaran.com