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'Corporate finance practices in Suriname. A comparison between Latin America, the USA, and Europe.'

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Summary

Eleven companies in Suriname were surveyed about their corporate finance practices. The main areas of research were Capital Budgeting and Capital Structure of companies. The capital structure part of the survey researched what type of capital funding the companies preferred and if they are willing to issue equity. The capital budgeting part of the survey concerned the project evaluation methods and the cost of equity. The research question: '**How much does the corporate finance practice in Suriname differ from other regions, and what drives these differences?'**, aims to find if Suriname differs a lot from regions like Latin America, the USA, and Europe, and what drives these differences. Keeping that in mind, the hypotheses were drawn up. Hypothesis one test whether high ownership concentration is the reason why companies are not willing to issue equity in Suriname. From the results, we can conclude that like Latin American firms, companies in Suriname are not willing to issue equity. This is different from the USA and Europe, where issuing equity is more common. High ownership concentration is not the reason why the firms are not willing to issue equity. The reason must either be found with the underdeveloped SSE or the economic conditions of the market. The second and third hypotheses are about the capital budgeting part of the research. We find that again like Latin American firms the most important capital budgeting methods are the IRR and payback period. Where Suriname differs from Latin America, the USA, and Europe is that the NPV is not used often. The reason for this is that the NPV method relies heavily on forecasting future cash flows, which is a problem for volatile economies. That is also the reason why the companies mostly use the payback period and sensitivity analysis. The last hypothesis tests whether the underdeveloped SSE is the reason that companies do not use CAPM to calculate their cost of equity. We find that the lack of comparable firms and the illiquidity of the SSE are the main issues why companies do no use CAPM. With these hypotheses, the research question can be answered. Suriname does not differ much from Latin American countries but does vary significantly from the USA and Europe. The primary drivers for the differences are the underdeveloped stock exchange and the economic volatility of Suriname. If the regulation surrounding the SSE increases, it should operate more efficiently and therefore leading to better economic development.

Keywords: Corporate Finance; Capital Budgeting; Capital Structure; Developing Countries; Survey.

1. Introduction

Suriname is a country that is around four times the size of the Netherlands but only has approximately 560.000 inhabitants (World Bank, Suriname, 2018). Despite being one of the smallest countries in South America, its population is one of the most ethnically diverse. Situated between the French Guyana and Guyana, Suriname is rich in natural resources. Ranging from bauxite to gold to oil, Suriname has the potential to have a thriving economy (Menke & Chin, 2018). Mismanagement and corruption have plagued the country. This has led the nation to be in a downward spiral since 2010. The country's people have little hope and trust in the current government. With the elections coming up in 2020, the nation can only hope for a better future.

This research aims to give insight into the current practice of corporate finance in Suriname. Most research into corporate finance and corporate finance textbooks only focus on developed countries. In developing countries without efficient stock exchanges, it is expected that corporate finance theories do not hold up. This research will be done by a survey. Eleven large companies in Suriname will receive this survey. The survey will consist of two parts, one part being about capital budgeting and the other about capital structure. Questions will target specific theories. For instance, calculating the cost of equity using the Capital Asset Pricing Model (CAPM) is expected not to be used because of the lack of variables. More specifically the questions about capital structure will be about what type of funding is used. The questions about capital budgeting will concern the discounted cash flow (DCF) methods used.

This is the first survey research done regarding the corporate finance practices of Surinamese companies. The first idea was to use online company data and statistics to do the research. Most companies in Suriname are private companies and therefore do not post yearly reports online. They also do not post their statistics online which is required by law. Therefore, it is almost impossible to do research only based on data collected online. The only option left was to collect data via a survey. The response rate of surveys in Suriname is very low. When surveying people in general, most of the students use social media to connect with a larger group of people to answer their questions. With this survey specifically targeting companies, this is not possible. The first option was to send out the survey to as many companies as possible and hope that enough reply. This was not feasible because with only a few months to finish the thesis if companies did not respond to this research could not have been done. With this in mind, the companies were first approached if

they were willing to participate in this survey. This meaning, calling in personal favors just to answer a survey. Eleven companies agreed to participate. The email addresses of the CEO's were given by personal contacts, and the surveys were sent out. This method leads to several drawbacks. The biggest being the small sample. Without more data, no quantitative analysis can be done.

The response rate of surveys in Suriname is meager. Graham and Harvey (2001) had a response rate of nine percent, which can be classified as a moderate response rate. In Suriname, the response rate is around the half a percent to one percent. To be sure that all selected companies will reply, the companies were asked beforehand if they wanted to participate. A sample of only eleven companies is a very small sample. A larger sample is always better because it is a closer approximation of the population. Another problem with surveys is that surveys measure believes and not necessarily actions. It is possible that survey questions are misunderstood, and survey analysis runs that risk that respondents are not representative of the population. A mix of companies is chosen, varying from financial institutions to telecommunication companies. This gives a broad overview of the companies in Suriname.

The goal of this research is to show that Surinamese companies experience the same determinants as Latin American firms but do differ significantly from North American or European firms. The focus will be on capital structure, capital budgeting, and the cost of capital.

With the survey, I hope to show the differences between the regions. In section 2 the research question and the hypotheses based on past scientific research will be drawn up. Section 3 describes the creation of the survey and the method of data collection. Section 4 describes and analyzes the results and answers the hypotheses. Section 5 reports the main conclusions. Section 6 will describe the shortcomings and further research recommendations.

2. Theoretical framework

2.1 Economic development in Suriname

The 2015 Human Development Index (HDI) ranks Suriname on the 97th place with a score of 0.725 on a scale from zero (no development) to one (complete development). This score ranks Suriname in the bottom third of Latin American and Caribbean countries (high human development). The HDI considers three components, longevity (measured by life expectancy at birth), knowledge (measured by adult literacy and number of years children are enrolled at school), and standard of living (measured by the real GDP per capita using purchasing power parity). A score between 0.7 and 0.79 means that the country is experiencing high development. The HDI mostly measures development as freedom and leaves out some aspects of economic and social life that could be contributing to or constraining development. With the thesis primarily focusing on corporate finance, it is essential to analyze other indicators of economic development. The world development indicators (WDI) 2017 by the World Bank Group is used to find these indicators. The GNI per capita in Suriname is qualified as upper middle income ($ 9.360) which is around the average of Latin America and the Caribbean, but much lower than North America and Europe. The GDP declined from 2014-2015 which is the trend for Latin American and Caribbean countries. Suriname has a current account deficit (-15.6% of GDP). Most Latin American and Caribbean countries have a deficit, but not as large as Suriname. European and North American countries have mostly a current account surplus (World Bank, World Development Indicators, 2017). Another important indicator of economic development is a functioning stock exchange. This will be described in section 2.2.

From these indicators, it can be concluded that Suriname does not differ significantly from other Latin American and Caribbean countries. It does, however, show a large difference between North America and Europe. This is expected as Suriname is still classified as a developing country. Suriname will mostly be related to Latin America because the research done on these countries is of higher quality than those done on Caribbean countries.

2.2 Inefficiency of the Suriname Stock Exchange

A well-functioning stock exchange is an essential element in corporate finance. Most corporate finance theories rely on an efficient stock exchange. According to Fama (1970), a stock exchange needs specific characteristics to be efficient. Fama claimed that all stocks trade at fair value. That means that no stock will be under or overvalued, making it impossible to outperform the market by stock picking. There are three forms of efficiency: 'weak,' 'semi-strong,' and 'strong.' Weak form efficiency states that future stock prices cannot be predicted based on past stock performance. Semi-strong form of the efficient market hypotheses implies that all publicly available information is incorporated in the stock price. The strong form of EMH also includes private information in the stock price (Fama, 1970).

Previous research has also focused on the benefits of a stock market. A positive correlation has been found between the stock market development and economic growth (Beck & Levine, 2004). Two main theories that relate to the level of development of a stock market to a country's economic growth are the level and efficiency effect. The 'level' effect says that by increasing liquidity, the amount of funding that can be accessed for investment projects should increase in the presence of a stock market. Starting an official exchange should also improve regulation. Improved accounting and reporting standards should increase investors confidence and is also important in attracting foreign investment (Minier, 2009). The 'efficiency' effect states that the existence of a stock market, should, in theory, lead to a better allocation of investments towards a higher return, riskier projects. This is only the case if the stock market provides better diversification and increased liquidity. It is expected that opening a stock exchange should increase the investment available in a country and improve the allocation efficiency (Minier, 2009). This should, in theory, be the same for the Suriname Stock Exchange (SSE), but it is not the case. Bodeutsch & Franses (2015) found for the SSE that the inflation corrected returns where often negative, showed only some signs of weak-form efficiency, and the exchange is highly illiquid. There are around 30.000 companies listed on the Chambers of Commerce but only 11 companies on the SSE (KKF, 2016). Even though Minier (2009) stated that a stock exchange should lead to improved regulation, the SSE is still unregulated and operates under no supervision. It is said that the SSE is operationally inefficient, and there is still much more efficiency to be gained. The stock market capitalization is also extremely low. Suriname has a market capitalization of around 7.6% (percentage of GDP)

(Suriname Stock Exchange, 2018). The average of the Latin American and Caribbean countries is 30.3%, North America 136.1%, and Europe 53.2%. This means that the SSE is underdeveloped.

Most research on the capital structure and capital budgeting focus on publicly traded companies. In a country where is no efficient stock exchange, and the bulk of the companies are private companies, it is possible that capital structure and capital budgeting theories do not hold up. For example, with an inefficient stock exchange, companies have a higher cost to acquire capital.

The primary research will be about how Suriname differs from other regions. This leads to the research question: **'How much does the corporate finance practice in Suriname differ from other regions, and what drives these differences?'**

After the differences are stated, the research will then focus on determining what drives the differences. This will only include country-level determinants.

The research question is answered by first testing three hypotheses. The hypotheses are based on earlier research. The first hypothesis concerns the capital structure in Surinamese companies. The second hypothesis will test if the capital budgeting practices differ from other regions. The last hypothesis tests whether the capital asset pricing model (CAPM) is used to calculate the cost of equity in Suriname.

2.3 Capital structure and ownership concentration

The research around the capital structure is dominated by the search for the optimal capital structure. Myers (1984) writes about the two ways of thinking regarding the capital structure. First, he describes the static tradeoff framework. In the static tradeoff framework, the firm sets a target debt-to-value ratio and gradually works towards it. The second framework he defines is the pecking order theory. There the firm prefers internal to external financing, and debt to equity if it is concerning issuing of securities. The static tradeoff theory of the capital structure is the idea that a firm is financed partly with debt and partly with equity. There are advantages to financing with debt. Interest expenses can be deducted from a firm's revenue, leading to lower tax payments. There are also cost to financing with debt, the cost of financial distress is one of them. The more debt a firm acquires, the higher the risk of financial distress. The idea to determine the optimal amount of debt is to balance the beneficial tax shield against the cost of financial distress. According to Graham and Harvey (2001), most US firms do follow the Pecking Order Theory. They will issue equity when all other options for financing are depleted. Issuing equity is less of a problem with US firms. This is the opposite for some Latin American firms.

The Herfindahl Index is a method to measure a companies' ownership structure. The index is measured by calculating the sum of the squares of the fractions of equity held by each shareholder. A high index means that there is a high ownership concentration, meaning that the company has little shareholders holding a large amount of equity of the firm (Rhoades, 1993). Latin American firms that have a high ownership concentration prefer issuing debt over equity. The reason for this is that with issuing equity comes the risk of losing ownership of their companies. Céspedes, González, & Molina (2010) find that the ownership structure strongly influences a firms' leverage. Companies with a high level of ownership concentration have a positive relationship with leverage (higher concentration leads to higher leverage). These findings are in line with the argument that highly concentrated firms do not seek equity finance to avoid losing control. If losing control is less of an issue (companies with low ownership concentration) the opposite is the case (lower ownership concentration leads to lower leverage). In Suriname, issuing equity is not common. As Latin American countries, most companies in Suriname are either family businesses and have a high ownership concentration. Therefore, the first hypothesis will test whether high ownership concentration in Surinamese firms is also a factor in not issuing equity.

H1: Companies with high ownership concentration are less likely to issue equity than low ownership concentration companies.

2.4 Capital budgeting methods

There are several methods to calculate the value of a project. Mukherjee (2011) analyzed past surveys concerning capital budgeting techniques. He found that the gap between capital budgeting theory and actual practices has narrowed. Firms calculate the cash flows according to the theory. DCF methods are mostly used as a primary tool (Ryan & Ryan, 2002). According to recent research, the internal rate of return (IRR) method and the net present value (NPV) method are the two most used by firms. Moore and Reichert (1983) find that around 86% of the firms analyzed use some kind of discounted cash flow method to evaluate projects. Graham and Harvey (2001) also find that 95% of the firms analyzed use DCF techniques. The most commonly used methods by North American firms are the NPV and IRR (Bennouna, Meredith, & Marchant, 2010). For European firms, the payback period is the most frequently used capital budgeting technique. Following the payback period are the NPV and IRR methods (Brounen, De Jong, & Koedijk, 2004; Daunfeldt & Hartwig, 2014; Andor, Mohanty, & Toth, 2015). Similar results are found in Latin American countries. After the NPV and IRR methods, the next popular choice is the payback period method. This is to be expected as emerging markets tend to be very volatile and are unstable in general. The liquidity factor that the payback period emphasizes is therefore very important (Maquieira, Preve, & Sarria-Allende, 2012). In research by Hermes, Smid, & Yao (2007), results show that the use of IRR method does not differ significantly between China and the Netherlands. It seems that the results do not differ much between regions. Therefore, it can be expected that Surinamese companies will mostly use the NPV, IRR, and payback period methods.

H2: The most commonly used methods to evaluate projects for Surinamese companies are the NPV, IRR, and payback period.

2.5 Cost of capital (CAPM)

For most of the capital budgeting techniques, the cost of capital is needed. The cost of capital provides a benchmark against capital market alternatives. Any usage of capital imposes an opportunity cost on investors (Brotherson et al, 2013). For a project to add value for the investor, the return of the project must be more than the cost of capital. A firm's cost of capital can be calculated in various ways. According to Brotherson et al. (2013), the most common method is the use of the weighted average cost of capital (WACC) method. The WACC requires the cost of equity and the cost of debt to be calculated. The cost of equity is according to empirical research mostly calculated using the capital asset pricing model (CAPM) (Graham & Harvey, 2001). The CAPM needs a risk-free rate, a company beta, and a market risk premium to be calculated. Graham and Harvey (2002) find in their survey that around 73.5% of large US firms use CAPM to calculate their cost of equity. The results are the same for Europe. Research shows that more than 60% of the firms use some form of CAPM (Brounen, De Jong, & Koedijk, 2004). For Latin American firms it is found that only 38% use the CAPM method to calculate their cost of equity (Maquieira, Preve, & Sarria-Allende, 2012). In Brazil, the listed companies use the more sophisticated cost of capital methods than the unlisted firms (Mendes-Da-Silva & Saito, 2015). The determinants for this according to Maquieira et al. (2012), is that CAPM does not take concentrated ownership into account (which is crucial in emerging markets) and it is difficult to find comparable firms to calculate the necessary inputs. Finally, Latin American firms have limited dependability on the capital markets, which is an important factor to use CAPM. As Suriname is similar to most Latin American countries, it is expected that the same findings will apply to the sample. It is possible that even fewer firms use CAPM because of the underdeveloped stock market.

H3: The Capital Asset Pricing Model (CAPM) is not used by Surinamese companies because of the underdeveloped stock exchange (SSE).

3. Data & Methodology

3.1 Survey design delivery and response

The survey focusses on the capital structure and the capital budgeting of firms. The survey is split up in a capital budgeting part and a capital structure part. A short introduction is first given, then the questions are asked. After consulting an expert in economics, it was suggested to not ask a lot of questions because of the low response rate. People are less willing to respond if there are a lot of questions to answer. Background information of the respondent was also not collected because the companies are mostly private, and the respondents are less willing to respond when sensitive information is asked. After careful consideration, a group of companies was chosen that can best be compared to US or European firms. All firms in the sample are considered large companies in Suriname. The companies also all have international dealings. The preliminary list was created and contained fifteen companies. Companies that did not want to participate were taken out, and in the end, the list ended up containing eleven companies. A fillable PDF form was created. The email addresses of the CEO's of the companies were given by personal contacts. The email was addressed to the CEO, a short introduction to the survey was given, the survey was attached to the email, and it was asked that the survey is filled in on a PC and then emailed back to me. All companies responded within four weeks. Multiple reminders had to be sent out. With all the companies responding, there is no non-response bias.

3.2 Capital budgeting design

The capital budgeting part of the survey will ask how firms evaluate projects, and how they calculate their cost of capital. Previous research focusses mostly on the net present value (NPV) versus the internal rate of return (IRR) method. Gitman and Forrester (1977) find that 53.6% use the IRR method, Stanley and Block (1984) find 65% in favor of the IRR. The conclusion from past research is that most of the firms use a type of discounted cash flow (DCF) analysis. Building on the work of Graham and Harvey (2001) the question in the survey also focuses on other DCF methods. The options given are NPV, IRR, sensitivity analysis, payback period, real options, adjusted present value (APV), and no specific method (for companies not using DCF analysis). The respondents were asked to choose which method they used (multiple options possible) and how often they were used (on a scale of 0-4 with 4 being 'used always'). The other three questions are about how the companies calculate their cost of capital. It is first asked what they use as their discount rate. The options were: the cost of debt, cost of equity, weighted average cost of capital (WACC), or a discount rate based on a past measure. The main goal of this question is to gain insight into the discount rate practices of the company. Past research finds that the WACC is mostly used to calculate the discount rate. The following question is about the cost of debt and how it is calculated. Brotherson Eades, Harris, and Higgens (2015) find that corporations mostly use the US Treasury yield + spread to estimate the cost of debt. The other method that is mostly used is the yield to maturity on outstanding debt. Financial advisors and textbooks mostly recommend using the current yield to maturity. The options given for this question are the interest rate on the current outstanding loan, the interest rate on the current outstanding load + a premium, the average interest rate on all outstanding loan, according to foreign bonds, and other with an option to fill in. The last question concerns the cost of equity. The capital asset pricing model (CAPM) is the most common way of estimating the cost of equity. Despite its shortcomings, Brotherson et al. (2015) find that 95% of the sample uses CAPM or a variant of the CAPM to calculate the cost of equity. With the focus of this research is finding the differences between theory and practice, the question asks if the company uses CAPM to calculate the cost of equity. The last question will answer whether companies use CAPM and therefore partly answering the hypothesis. The other questions will give insight into the other practices regarding their discount rate.

3.3 Capital structure design

The second part of the survey is about the capital structure of companies. The aim of the questions is to get more insight into the static tradeoff framework, the pecking order theory, and cash holdings of Surinamese firms. The first question asks whether companies follow a strict, flexible, or no target debt ratio. The determinants for why they do or do not support the static tradeoff framework is not asked. This is because the theory is not clear about the real determinants. The most important reason should be the tradeoff between the tax shield and financial distress cost, but past research does not find conclusive evidence for this. There are other determinants more important. The following five questions are about the pecking order theory. The questions are drawn up in a way that asks what type of capital the respondent will use to finance a project. After every question, one type of capital is removed, and the respondent must choose out of the remainder of the answers. The answers start with funding with internal capital (cash), acquiring a new bank loan, bonds, and equity funding. The last question about the pecking order theory asks whether companies have ever passed up on a project because of capital constraints. This will give a better view if companies have ever been in a situation where they had an opportunity to do a project but did not have sufficient funds. It is possible that companies were then put in a position to either choose another way of funding or just skip the project. The main goal of these questions is to give insight into which type of capital funding the companies prefer.

4. Results

4.1 Composition of companies

The sample consists of six manufacturing, three finance, one transportation, and one telecommunication company (Appendix I, Table 5). The companies chosen, are considered large companies in Suriname. They all have foreign dealings and are therefore more suitable to be compared to companies in other regions. Kersten NV is the oldest company in the sample and is also the largest. The Surinamese government has a minority share in Nationale Ontwikkelings Bank, SLM, and Kaloti. The companies are not state-owned because the government does not have significant control. The only state-owned company in the sample is Telesur. The ownership structure of the companies will be described in section 4.2.

4.2 Capital structure and ownership concentration

H1: Companies with high ownership concentration are less likely to issue equity than low ownership concentration companies.

To test this hypothesis, we must first split up the companies into two categories. The first category contains companies with a high ownership concentration (usually owned by less than three shareholders). The second category will contain companies that have a larger number of shareholders (table 1).

High Ownership Concentration	**Low Ownership Concentration**
Fatum	Kersten NV.
Southern Commercial Bank NV	Nationale Ontwikkelings Bank
Surmetex NV	SLM
Apotheek Soma	Telesur
Brokopondo Water Wood International	Kaloti
	Varrosieau (Public Company)

Table 1: Ownership Concentration

Company	**Bank loan**	**Issuing bonds**	**Issue equity**
Fatum	Yes	No	No
Scom Bank	Yes	No	No
Surmetex	No	No	No
Apotheek Soma	No	Yes	No
BWWI	Yes	Yes	No

Table 2: Choice of funding (High Ownership Concentration)

Company	Bank loan	Issuing bonds	Issue equity
Kersten NV	No	Yes	No
NOB	No	No	No
SLM	Yes	Yes	Yes
Telesur	Yes	No	No
Kaloti Mint House	Yes	Yes	Yes

Table 3: Choice of funding (Low Ownership Concentration)

After splitting up the companies into two categories, we then look at their willingness to issue equity (table 2 & 3). The hypothesis states that the companies of the first category will be less likely to issue equity. The first group only consists of family-owned businesses. Family owned businesses usually have an unwillingness to lose control of their company. From the first group, none of the companies are willing to issue equity. In the second group, only two companies are willing to issue equity. It seems that both groups are reluctant to issue equity. To finance projects, they would have to make use of alternative sources of capital. Looking at the first group, of the five companies three were willing to acquire bank loans, and only two would consider issuing bonds. The same goes for the second group. Only three are willing to acquire new bank loans, and three of the companies will issue bonds if needed. Looking at the data, there are no noticeable differences between the two groups. Some of the companies are not willing to make use of outside funds. This could be a limiting factor in the growth of the company, as internal funds run out.

From the data gathered it seems that most of the companies (9 out of 11) pass up positive NPV projects because of capital constraints. This is a surprising result because only two companies exhaust all methods of capital funding. The other companies all pass up on issuing equity. This limits their funding options to issuing bonds or acquiring bank loans. From the pecking order theory, companies should first fund their projects with internal funds, following internal funds, the companies would then issue debt before equity. In this case, the data says otherwise. Some companies do not want to acquire bank loans whereby others do not want to issue bonds. It could be said that, when looking at the data, companies are not operating efficiently. This is because they have passed up on positive NPV projects because of capital constraints, even though not all sources of capital are used.

The companies that are willing to issue equity are SLM and Kaloti Mint House Suriname. The companies have very little similarities. Kaloti Mint House Suriname is owned by a foreign company. SLM is owned mostly by Surinamese citizen and companies. They do both follow the Pecking Order Theory, but the only other similarity these companies have is that the Surinamese government is a minor shareholder. This is not a determinant to issue equity because the Surinamese government is also a minor shareholder of Telesur, but they are not willing to issue equity.

The hypothesis is rejected because the second category of companies is also not likely to issue equity. The high ownership concentration is not the determinant of not issuing equity in Suriname. Further research needs to be done to be able to find the determinants of equity issuance. The underdevelopment of the SSE could be one of the problems. The lack of knowledge to properly issue equity could be one of the reasons to not do it. Another is that the inefficiency of the SSE could lead to failure to raise the required amount of capital.

4.3 Capital budgeting techniques

H2: The most commonly used methods to evaluate projects for Surinamese companies are the NPV, IRR, and payback period.

DCF-Method	**Number of companies that use it**
NPV	2
IRR	5
Sensitivity Analysis	4
Payback Period	5
Real Options	1
APV	0
No specific method	2

Table 4: DCF-Methods used

The hypothesis that needs to be answered concerns the capital budgeting techniques (table 4). Past research states that the most common methods are the NPV and IRR method. Following those two methods, the payback period method is mostly used. We see that in the case of Latin American companies, the payback period is an important tool to value projects because of the volatile nature of these countries. Volatility is also common in Suriname. That is why the expected capital budgeting techniques that are mostly used are NPV, IRR, and the payback period method. From the survey results, it is surprising that the NPV method is only used by two companies. The most

common methods to value projects are the IRR and the Payback Period method, which is to be expected. The Sensitivity Analysis is also used by four companies. This can be linked to the fact that with high economic volatility in a country, all scenarios need to be considered. The fact that the NPV method is almost not used could be because the NPV method relies heavily on forecasted cash flows. Forecasting cash flows are hard to do when there is high volatility. Two companies did not use DCF-techniques to value projects. Out of the sample, only one company uses Real Options, and no companies use the Adjusted Present Value (APV) method.

From the data derived, evidence is found in favor of the hypothesis. The only difference is the fact that the NPV method is hardly used and that the Sensitivity Analysis is also one of the most used methods. That Payback Period and Sensitivity Analysis are used so often, and that NPV is not, could be related to the fact that economic volatility plays an important role in valuing projects.

4.3 Cost of capital

H3: The Capital Asset Pricing Model (CAPM) is not used by Surinamese companies because of the underdeveloped stock exchange (SSE).

To test the hypothesis, we first look at how the companies calculate their discount rate. Only one company uses the Weighted Average Cost of Capital (WACC). One company base their discount rate on their cost of equity. And seven companies base their discount rate on a rate that was calculated and based on the past. After acquiring information about their discount rate, questions concerning the cost of debt were asked. The companies were asked to choose how they calculate their cost of debt. Most of the companies choose to base their cost of debt on their interest rate on the current loan. Finally, the companies were asked if they use CAPM to calculate their cost of equity. From past research, it is expected that companies in Suriname do not use CAPM. From the survey results, only two of the eleven companies use CAPM to calculate their cost of equity. This in line with research done on Latin American companies. The use of CAPM differs significantly from North American and European companies. The research states several reasons for this. Latin American companies have high ownership concentration, whereas CAPM does not take this into account. Secondly, it is hard to find comparable firms which are a requirement for CAPM. The final reason stated is the limited dependability on their capital markets. For Suriname, the biggest bottleneck for using CAPM is the stock market. With only eleven companies listed it is impossible to find a group of comparable firms. Using the SSE as the market (Rm) will not give an accurate

representation. This is because the SSE is illiquid. Therefore, the returns do not change often and will not give an accurate representation of the market. When analyzing the companies that do use CAPM these are companies that mostly deal with foreign countries. One company harvests wood in Suriname and exports the wood to either Germany or China. They are dependent on what happens in other countries. It is most likely that the company calculates their cost of equity using foreign variables (foreign markets as (Rm), risk-free rate of other countries).

Looking at the data, we find evidence in favor of the hypothesis. Only two of the eleven companies use CAPM. The company that uses CAPM is a company that only deals with foreign countries and can base the CAPM variables on foreign numbers. The biggest reasons why companies do not use CAPM is because the stock market which is an important aspect of CAPM is underdeveloped and will not give an accurate representation of the cost of equity.

4.4 Answering the research question

Research question: **'How much does the corporate finance practice in Suriname differ from other regions, and what drives these differences?'**

All hypotheses show that the corporate finance practices in Suriname can be related to those of Latin American countries. The determinants however differ. For hypothesis one, ownership concentration was not the reason for the unwillingness to issue equity. The findings show that companies were willing to give up positive NPV projects and therefore growth opportunities instead of acquiring another source of capital. This shows that companies do not operate efficiently. Hypothesis two and three show the same determinants as Latin America. The findings show that the underdevelopment of the stock exchange (SSE) is one of the major reasons why CAPM is not used. Economic volatility is the reason why the sensitivity analysis and payback period are used so often.

To answer the research question, corporate finance practices in Suriname are not as different as those from Latin American countries but do significantly differ from developed regions (North America and Europe). When looking at the determinants, we find that only the reason companies do not issue equity is different. The main drivers are the underdeveloped stock exchange and the volatility of the economy.

5. Conclusion

Suriname, a country rich in natural resources and major potential, is plagued by corruption and grave mismanagement. With low economic development, and an underdeveloped stock exchange corporate finance practices are behind. This research focusses on the difference and similarities between regions and their determinants. Suriname can be compared to the Caribbean and Latin American countries. They are at the same level of income, follow some of the same trends, suffer from a trade deficit, etc. The concepts of corporate finance that are tested are about capital structure, capital budgeting methods, and cost of capital. The research is done by way of a survey. Eleven companies were asked to participate in the survey. The companies were carefully selected and asked beforehand. This prevents companies from not responding as Suriname has a notoriously low response rate. The hypotheses were drafted up according to past research. The main finding for the first hypothesis is that ownership concentration is not a determinant for the reluctance of companies to issue equity. The cause must be found elsewhere, for instance with the stock exchange. The second hypothesis shows that economic volatility plays a major role in capital budgeting methods. The NPV method is used less because of the volatility in the future cash flows. The sensitivity analysis and payback period are used more to account again for the volatile economy. The last hypothesis shows that because of the underdevelopment of the SSE, the CAPM is not used to calculate the cost of capital. With the hypotheses tested, the research question can be answered. This research finds that the corporate finance practices of Suriname can be compared to the practices in Latin America but do differ significantly from the USA and Europe. The underdeveloped stock exchange and volatile economy play major roles as determinants.

A better functioning Surinamese stock exchange can lead to the more efficient use of capital. Past research finds that an efficient exchange leads to better economic development. The regulation surrounding the SSE needs to be improved so investors and companies willing to invest or list their companies are better protected. Volatility in the economy is not something that can be changed easily. It is typical for developing countries to experience high volatility. The country just needs to develop, and more stability will follow.

The shortcomings of this research are described in section 6.

6. Shortcomings and further research

The quality of the survey can be improved. Graham and Harvey (2001), first drafted a survey which was reviewed by academics. The feedback was incorporated, and the survey was redesigned. The advice of marketing research experts was then sought. The format of the questions was changed with the goal to minimize biases induced by questionnaire and maximizing the response rate. This was not done for this research because of the time constraints and lack of expertise. Another problem with conducting survey research in Suriname is the low response rate. The companies were asked beforehand to participate in the survey. Even after agreeing to participate, reminders had to be sent. The low response rate is due to the culture in Suriname. Students are often not taken seriously, or companies simply do not want to respond. There are no university mailing lists which can be used to contact people or companies.

The main problem of this research is the small sample. With only eleven companies, it is not possible to do any statistical tests. To find companies that are adequately large and can be compared to foreign companies is hard because most of the companies in Suriname are small, family-owned businesses. With these small companies, corporate finance is not practiced by these companies. They would be no use for this research. Ten of the eleven companies are private companies and therefore do not post annual reports online. The companies were also not willing to share these reports.

If a larger sample can be collected, and annual reports are made available, the research can extend into finding firm-specific determinants for corporate finance theories. This is a large area of research with most of the research done in developed countries. If the research is done in Suriname, we can gain more insight into the workings of small private companies.

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I. Appendix A

Company Name	Industry
Apotheek Soma	Manufacturing/Pharmaceutical
Brokopondo Water Wood International (BWWI)	Manufacturing/Wood
Fatum NV	Financial/Insurance
Kaloti Mint House	Manufacturing/Gold
Kersten NV.	Financial
Nationale Ontwikkelings Bank (NOB)	Financial/Bank
Southern Commercial Bank NV (Scom)	Financial/Bank
Surinaamse Luchtvaart Maatschappij (SLM)	Transportation/National Carrier
Surmetex NV	Manufacturing/Gold
Telesur	Telecommunication
Varossieau	Manufacturing/Paint

Table 5: Company Composition

II. Appendix B (Survey)

Capital Budgeting

1. Which of the following DCF-techniques is used when evaluation project within the company? On a scale of 0 (least) – 4 (most), how often are the following techniques used?
    - Net Present Value (NPV) _____
    - Internal Rate of Return (IRR) _____
    - Sensitivity analysis _____
    - Payback period _____
    - Real options _____
    - Adjusted Present Value _____
    - No specific method

2. When using the DCF-method, the projected cash flows are discounted using a discount factor. If the method you use requires the discounting of cash flows, what do you use as a discount rate?
    - Cost of debt
    - Cost of equity
    - Weighted Average Cost of Capital (WACC)
    - Discount rate based on the past experiences

3. How is the cost of debt calculated within your company?
    - Rent of the current loan
    - Rent of the current loan + a premium
    - Average rent cost of all outstanding loans
    - According to foreign bonds
    - Other, _____

4. When calculating the cost of equity, do you use the Capital Asset Pricing Model (CAPM)?
    - Yes
    - No, we use_____

Capital Structure

1. To what extent does your company follow a target debt ratio?
    - Strict
    - Flexible
    - Not

2. How would you finance a positive NPV project?
    - Internal holdings (Cash)
    - Acquire a new bank loan
    - Issuing of bonds
    - Issuing of shares

3. If the internal holdings are not enough, how would you finance a positive NPV project?
    - Skip the project
    - Acquire a new bank loan
    - Issue new bonds
    - Issue new shares

4. If the internal holdings are not enough, and the option for a bank loan is not present, how would you finance a positive NPV project?
    - Skip the project
    - Issue new bonds
    - Issue new shares

5. If the only way to do a positive NPV project is to issue new shares, would you do the project?
    - Yes
    - No

6. Are projects ever skipped because of capital constraints?
    - Yes
    - No

7. How much cash does the company hold? (Cash-to-asset ratio)
    - 0-5%
    - 6-10%
    - 11-15%
    - 16-20%
    - 21-30%
    - Meer dan 31%

8. How much cash is held as operational cash? (For daily operations)
    - 0-10%
    - 11-20%
    - 21-30%
    - 31-40%
    - 41-50%
    - Meer dan 51%

9. How important are the following factors for holding cash? (Not important (0) – very important (5))
    - Financial flexibility (Enough internal cash holdings to be able to do projects quickly)
    - Volatility in the future cash flows
    - Holdings required by law
    - Dividend payment