Detecting Accounting Fraud –
The Case of Let's Gowex SA

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ABSTRACT:

This study focuses on the company Let's Gowex SA and the accounting fraud committed by its CEO Jenaro García Martín.

By analysing the company's financial statements from 2009 to 2013 with popular fraud ratios as well as examining several qualitative factors, it seeks to find recommendations on how to better protect investors and other stakeholders in the future. The objective of the analysis is to find a valid manipulation detection strategy that could prevent big-scale fraud scandals by detecting manipulations earlier.

On the basis of these findings, we recommend to automatize the comparison among the performance measures of different publically listed companies.

The use of the Beneish M-Score as well as the Z-value developed by Bladu et al. to assess the general risk that a company could be a manipulator is recommended. In addition to that, general performance measures of the industry should be collected and publically traded companies should be compared to their peer group regarding revenue growth, depreciation rate and share price development in a standardized way.

If that analysis gives reason for concern, an in-depth analysis of qualitative signals should be conducted, focusing on the quality of audit, the composition of the board and the percentage of audit fees on stated revenues.

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Introduction

Financial statement manipulation and its detection is a topic that makes auditors, researchers, stock supervisors and investors equally rack their brains. Prevention is only part of the solution to the problem and the endeavour for investor protection should continue also when fraud prevention already failed.

With increasingly difficult globalised economic scenarios and economic recessions in recent years, accounting fraud became a more frequent phenomenon (Tilden and Troy 2012). Therefore stakeholders have an in increased interest in putting effort into finding ways and statistical measures to effectively detect accounting fraud (Sharma and Panigrahi 2012). Particularly since the implosion of several big-scale scandals such as the financial statement scams committed by Enron, WorldCom or Let's Gowex SA, research on this topic has increased.

To support the research in that direction, Let's Gowex, having caused one of the most recent scandals in Europe, is the topic of this case study.

The discovery that Gowex's CEO Jenario García Martín not simply manipulated individual numbers in the annual report but basically invented about ninety per cent of its revenues shattered Gowex's investors but also the MAB[1] and the Spanish stock market in general.

The goal of this case study is to find out which kind of evidence could have been found in the company's financial statements to detect the fraud early on and minimize the negative impact on investor's equity and stock market reputation. In addition to that, we also analyse non-financial measures and qualitative data as e.g. transparency of the industry and auditor reputation and assess which importance these information contains for standardized fraud detection in the future.

Misstatements resulting in law enforcements are rare events. Not only because the vast majority of firms does their financial statements correctly, but also because fraud detection is very difficult. Companies identified as manipulators mostly represent a very small percentage

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[1] Mercado alternativo bursátil.

of the companies available on databases like COMPUSTAT[2]. Yet, if manipulations of the numbers within the financial statements become evident, this is very costly not only for investors and auditors, but also for regulators and capital markets in terms of reputation and lost confidence (Dechow, et al. 2011).

The general definition of fraud by the Oxford English Dictionary is stated as "wrongful or criminal deception intended to result in financial or personal gain" (Oxford Concise English Dictionary 2009).

A company that commits accounting fraud falsifies its financial statements by intentionally manipulating the numbers in an allegedly favourable way (Sharma und Panigrahi 2012) (Burgstahler und Eames 2003) (Burgstahler und Eames 2003, Holthausen, Larker und Sloan 1995). They do so by:

- Overstating assets
- Understating liabilities, debts, expenses or losses
- Misappropriation in taxes
- False entries related to sales and profit

At this point, the line between the so-called "creative accounting", which moves within the legal boundaries and takes advantage of regulation loopholes, and accounting fraud becomes often blurry. The ethics of creative accounting is a controversially discussed and highly interesting topic, but goes beyond the scope of this case study.

Reasons for financial statement manipulation are manifold. The pressures to meet analyst forecasts are especially high in publicly traded companies and frequently lead to overoptimistic or fraudulent behaviour. One of the main motives for manipulation is to hide a decline in earnings and income (Burgstahler und Eames 2003). Especially when executive remuneration is linked to the company's financial success, fraudulent behaviour is more frequent (Holthausen, Larker und Sloan 1995).

In addition to that, in the phase prior to an Initial Public Offering, the company can have an incentive to manipulate numbers to increase the share price (Barth, Elliot und Finn 1999). Other widespread incentives are profit smoothing, meeting covenants in loan contracts (DeFond und Jiambalvo 1994) and reducing the cost of capital. (Francis, et al. 2004).

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[2] Compustat is a database of financial, statistical and market information on active and inactive global companies throughout the world.

According to (Stanley 2006) a manager decides to misreport after weighing the expected costs and benefits of misreporting against reporting accurately (Mahama 2015).

Generally speaking, the likelihood of a company committing any type of financial statement manipulation increases with increasing economic pressure. These moments of special pressure do not only arise from globalisation and economic downturns but also from mergers and acquisitions, IPOs, so-called squeeze outs[3] or problems to meet loan covenants (Schilit 2002).

Due to the huge amount of quantitative as well as qualitative data and the big numbers of publically traded companies, "the detection of fraud using traditional audit procedures is a difficult and sometimes impossible task" (Sharma und Panigrahi 2012). It becomes even more complicated if the auditing company is somehow involved in the scam.

Therefore, re (Sloan 1996)cent studies on how to detect accounting fraud as soon as possible, focus on automatic data analysis procedures and statistical tools to estimate the likelihood of the company having falsified its financial statements.

In the following section, a condensed overview is given about the most cited works in that direction. With this summary, the most important models and theories are introduced, which will later be used to analyse the specific case of Gowex.

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[3] An action taken by a firm's majority shareholders that pressures minority holders to sell their stakes in the company. A variety of maneuvers may be considered freeze-out tactics, such as the termination of minority shareholder employees or the refusal to declare dividends. Also referred to as a "squeeze out".
http://www.investopedia.com/terms/f/freeze-out.asp

1. Methods of account manipulation detection

1.1. Financial risk ratios

1.1.1. Sloan accrual measure

Richard G. Sloan introduced the Sloan accrual measure in 1996.

It focuses on identifying which components of earnings are actually caused by operations and which by accruals. It is calculated as follows: net income less cash flow from operations divided by average total assets. Sloan defined the "red flag benchmark" to be any number bigger than 0,10 (Grove und Clouse 2013). Calculating the accrual measure helps evaluating the company's quality of earnings. If a great part of the earnings in a period consist of accruals instead of coming from company's actual operations, earnings are likely to be unsustainable. Furthermore, accrual methods tend to be highly subjective, which makes the accrual components of earning less transparent and susceptible to manipulations. Thus, an accrual measure of more than 0,10 can be an indicator for "cooked books" (Sloan, 1996; Robinson, 2007). Sloan found that shares of companies with small or negative accruals vastly outperform those with large ones.

1.1.2. Quality of earnings

Another way to assess the quality of a company's earnings is the quality of earnings ratio. For that, operating cash flow for the period is divided by net income for the period. Schilit (2002) defined the red flag benchmark to be any number smaller than 1,0. Similar to the accrual measure it gives hints about the composition of the earnings and whether or not the company is trying to inflate it earnings by e.g. booking one-time gains on asset sales or early booking of revenue. The last mentioned are all methods for inflating earnings but do not increase the operating cash-flow. If operating cash flow and net income differ significantly (especially when operating cash flow is smaller than net income) it is a reason for concern and an indicator for account manipulation. Large fluctuation in this ratio over time may also indicate financial reporting problems. This has been proven true in the analysis of the quality of earnings ratio in the financial statements of Enron (Grove und Clouse 2013).

1.1.3. Quality of revenues

The third and last financial risk ratio that is being applied in this case study is the quality of revenues ratio. It compares cash collected from customers, defined as revenues plus or minus the change in accounts receivables, to revenues. Thus, it compares cash relative to actual sales rather than net income (Grove und Clouse 2013) (Altman 1968). Just like the quality of earnings ratio it helps identifying if revenues were inflated without actually collecting cash. This way, popular methods to artificially inflate earnings such as extended credit terms and shifting future revenues into the current period can be detected. Analogous to the quality of earnings ratio, Schilit (2003) (Schilit 2002) states the red flag benchmark at 1,0.

1.2. Statistical methods

With the need for a way to extract hints of account manipulation out of huge sets of financial data of many different firms, linear methods have become more and more popular and refined.

What they have in common is that they calculate an overall score on the basis of several distinctive variables that are mostly ratios calculated with publically available data of financial statements. The scores are obtained by categorizing companies in manipulators and non-manipulators and by applying a probit regression in which a normal distribution is assumed.

The linear developed linear formula is then applied to the company that is supposed to be analysed. After that, the score calculated in this way is benchmarked to a fixed value, signalling a red flag. A company that surpasses the benchmark is not necessarily committing fraud or manipulating its accounts. But it is a sign for investors that the company is more likely than others to have accounting issues and that they have a higher-than-average risk of disappointment in the future.

1.2.1. Altman Z-Score (Bankruptcy model)

The Z-Score, which was introduced by L. Altman in 1968 (Altman 1968) and updated in 2005 (Altman und Hotchkiss 2005), is a measure to assess the probability of a company going bankrupt within the next two years. It consists in a multivariate statistical model including five ratios and its coefficients that have been calculated on the basis of Altman's research.

The measure helps to identify possible hidden financial problems within a company. As financial difficulties increase the likelihood of account manipulation, the Z-Score can be used to classify the risk of accounting fraud in a company. On the other hand, the Z-Score is not immune to false accounting practices. It can only be as accurate as the data that goes in (McClure 2015).

The ratios Altman uses in his linear model are the following:

(Working Capital / Total Assets) x 1,2

This ratio is one of the strongest indicators for financial health or trouble within a company. A company with a lot of working capital[4] (also called net liquid assets) will most probably not have problems to meet its short-term liabilities. For that reason the relationship between working capital and capitalization is very revealing, especially when working capital is negative.

(Retained Earnings / Total Assets) x 1,4

Retained earnings consist in cumulative profits and are put in a relationship to the size of the company. Many retained earnings lower the likelihood of financial distress. This measure indirectly accounts for the age of a company, as young start-ups normally have lower retained earnings or even retained losses and thus a higher risk of failure in the first years than more mature businesses (Grove and Clouse, 2013).

(EBIT / Total Assets) x 3,3

This ratio is an indicator of how efficiently the company uses its assets to generate income. A low value means low profitability and greater threat for economic distress.

(Market Value of Equity / Book Value of Liabilities) x 0,6

Well-capitalized companies are less likely to go bankrupt, so the higher this ratio, the lower the risk for insolvency.

(Sales / Total Assets) x 0,999

Similar to the ratio including EBIT, this ratio (also known as total asset turnover), is an indicator of how efficient the business is in generating sales and herewith earnings by using its assets.

Adding up all these coefficients, the investigator obtains the so-called Z-Score value, which is then compared to the benchmark of 1,8. If it is smaller than 1,81 it is likely that the company is heading for bankruptcy. If it is between 1,8 and 2,99 it is in a grey, neutral zone and with a value bigger than 2,99 it is unlikely that the business goes bankrupt in the near future.

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[4] Current assets less current liabilities.

This model received a lot of positive reactions and very little criticism, as the predictions were impressively accurate. 95% of the bankruptcies were forecasted correctly (Altman, Danovi und Falini 2010). However, the use of ratios is quite limited and hasn't established itself as a performance management tool (Mahama 2015).

1.2.2. Fraud M-Score Model

The Fraud M-Score Model (Beneish 1999) contains a very similar approach to the Z-score model. Yet, instead of analysing the systematic relationship between the probability of bankruptcy and some financial statement variables, it directly seeks to extract information about the likelihood of account manipulations from the financial statement ratios. For his study, Beneish used all companies that made information available on the COMPUSTAT database between 1982 and 1992. The model identifies approximately half of the companies involved in earnings manipulation prior to public discovery (Beneish 1999).

The original linear formula consists of eight different indices:

Days Sales in Receivables Index (DSRI)

This is the rate of days' sales in receivables[5] in year t divided to the same rate in year t-1. If the rate increases, this can be due to an expansion of the credit term the company gives to its customers. This way, customers will buy earlier but pay later (if ever) and sales are artificially blown. It is a good measure to identify businesses that inflate earnings by recognizing phony or early revenues.

Gross Margin Index (GMI)

The Gross Margin Index consists in the ratio of gross margin (defined as net sales minus costs of goods sold) in year t-1 to gross margin in the current period. If this index is above 1 then the gross margin decreased from one period to the next. It is assumed that companies that have shrinking gross margins are more likely to manipulate their results, as they are trying to keep up with prior periods of well performance.

Asset Quality Index (AQI)

Asset quality is measured identifying all fixed assets other than PP&E[6] and dividing this number by total assets. The Asset Quality Index consists in the ratio of asset quality in the current period to asset quality of the year before is the AQI.

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[5] Receivables/sales.
[6] Plant, property and equipment; fixed assets – PP&E = intangible fixed assets + other fixed assets.

The index shows if intangible assets increased, which would mean that the company capitalized expenses instead of counting them as costs in the income statement. This does not only increase assets but also profitability. It does not necessarily mean that assets are increased in a deceitful way, but as the rules for capitalizing intangible assets are quite wage they give a lot of space for manipulation.

Sales Growth Index (SGI)

The SGI is the ratio of sales in year t to sales in year t-1. A score above 1 is considered to increase the likelihood of manipulations as sales growth enhances the pressure on management to continue with that growth. Furthermore, if a company states a large increase of sales from one period to the next this could be based on phony, early or otherwise manipulated revenues. However, it should be said that obviously a growing company is not necessarily manipulating sales numbers, it just means that a second look could be worth the effort, as high sales growth was a common phenomenon among the studied manipulator firms.

Depreciation Index (DEPI)

The DEPI compares the rate of depreciation[7] in t-1 to the rate of depreciation of the current period. A DEPI of greater than 1 means that the company lowered the rate of depreciation by adopting a new method and could artificially inflate results this way.

Sales, General and Administrative Expenses Index (SGAI)

This ratio consists in expenses made for sales, general and administration to sales in one period and compares that ratio to the previous period. With the utilization of this index, Beneish follows a recommendation of Lev und Thiagarajan (1993) which claim that analysts consider a disproportional increase in sales compared to the SGA expenses as a reason for concern.

Leverage Index (LVGI)

The Leverage Index is comprised of the ratio of total debt to total assets in period t divided by the same ratio of period t-1. Whenever LVGI is greater than 1, leverage has increased. This ratio was included to capture incentives for financial statement manipulation that arise from debt covenants. There are several studies, including one done by Stanley (2006), that suggest that debt can provide an incentive to manipulate the results in financial statements, not only to supposedly reduce the risk of default but also to reduce borrowing costs (Mahama 2015).

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[7] Depreciation / (net PPE + Depreciaiton).

Total accruals to total assets (TATA)

Beneish calculated total accruals as the change in working capital accounts other than cash minus depreciation.

Similar to the Sloan Accrual Measure, the TATA index is total accruals divided by total assets. The magnitude of accruals is a good proxy for earnings quality as manipulating accruals is much easier than manipulating cash earnings. For that reason, the higher the percentage of accruals compared to total assets it, the higher is the chance that the company is manipulating earnings.

The original formula for the M-Score includes all of these 8 indices and, in addition to the ratios, a constant value:

$$M = -4{,}84 + 0{,}92 \mathbf{DSRI} + 0{,}528 \mathbf{GMI} + 0{,}404 \mathbf{AQI} + 0{,}892 \mathbf{SGI} + 0{,}115 \mathbf{DEPI} \\ - 0{,}172 \mathbf{SGAI} + 4{,}679 \mathbf{TATA} - 0{,}327 \mathbf{LVGI}$$

If a M-Score greater than -1,78[8] is calculated, it is an indication of potential account manipulation.

A modified version of the formula exists, which excludes the three variables SGAI, TATA and LVGI since they were not significant in the original model (Invest Excel 2015).

For the five-variable model, the formula is the following:

$$M = -6{,}065 + 0{,}823 \mathbf{DSRI} + 0{,}906 \mathbf{GMI} + 0{,}593 \mathbf{AQI} + 0{,}717 \mathbf{SGI} + 0{,}107 \mathbf{DEPI}$$

Beneish states that with his model, he could correctly identify 76% of manipulators, whilst only incorrectly identifying 17,5% of non-manipulators (Business Insider 2011).

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[8] Meaning any number that is less negative than -2,22.

1.2.3. Fraud F-Score Model

The Fraud F-Score Model developed by Dechow et al. (2011) builds on and is complementary to the work of Beneish but takes a different perspective. Their goal was to develop a model that can be directly calculated from the financial statements without the roundabout approach of calculating indices first.

Another difference is that they do not match firms to a control group of matching industries or sizes with the purpose of enabling investors to calculate a score for a random company regardless of the industry. Furthermore, the study is more extensive, as it includes all Auditing Enforcement Releases issued by the SEC from 1982 to 2005, so 13 years more than Beneish.

The variables of the formula are the following:

Accruals x 0,773

In many cases, companies that engage in the manipulation of their financial statements have excessively high accruals. Dechow et al. find accruals within the financial statements thanks to a complex calculation based on different accrual measures, which is then divided by average total assets.[9]

Change in receivables x 3,201

As mentioned before, a remarkable change in receivables can be a signal for artificially blown-up earnings. For the F-Score calculations, the change in receivables from period t-1 to t is scaled by the average of total asset.

Change in inventory (x 2,464)

Also inventory can be used to inflate earning, as misstatements of that account increase the gross margin. The change in inventory from period t-1 to t is scaled by the average of total assets.

Percentage of soft assets

This variable is defined as the percentage of assets on the balance sheet that is neither cash nor PP&E. Dechow et al (2011). Assume that companies with a high proportion of soft assets are more likely to manipulate their results as with soft assets there is more room to change assumptions about their valuation.

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[9] (ΔWC + ΔNCO + ΔFIN) / Average total assets, where
WC = [Current Assets) – Cash and Short-term Investments]–[Current Liabilities – Debt in Current Liabilities];
NCO = [Total Assets–Current Assets - Investments and Advances] – [Total Liabilities – Current Liabilities –Long-term Debt];
FIN=[Short-term Investments + Long-term Investments]–[Long-term Debt +Debt in Current Liabilities + Preferred Stock];
following (Richardson, et al. 2005)

Change in cash sales x 0,108

Dechow at al. use this method to do the opposite of the accrual measures, namely to see if sales that are not subject to accrual management are declining. Cash sales are defined as the percentage change in cash sales minus the change in accounts receivables. However, in contrast to their expectations, the researchers find in their data an increase of cash sales during misstatement periods instead of a decline (Dechow, et al. 2011).

Change in return on assets

The change in return on assets[10] is also included in the F-Score. Managers are assumed to be trying to provide positive growth in earnings and therefore could be tempted to manipulate the numbers towards a positive increase in earnings.

Actual issuance x 0,938

The last variable, actual issuance is an indicator variable that takes the value 1 only if the company issued new debt or equity during the period t. They find that actual issuance is higher in periods of manipulation.

1.2.4. Z-Score Bladu, B., Amat, O. and Cuzdriorean

What makes the model of Bladu, B., Amat, O. and Cuzdriorean (2014) (Bladu, Amat und Cuzdriorean 2014) particularly interesting for the analysis of the company Let's Gowex S.A., is the fact that the research is focused on the Spanish market and the data sample is comprised by Spanish listed companies.

On the basis of popularity and relevancy, twelve variables were chosen:

Receivables Index (RI)

For this index accounts receivables are scaled to sales. The ratio of period t is then divided by the same ratio in period t-1 to analyse if receivables have increased proportionally to sales. If receivables turn out to be disproportionally large compared to sales it could be a sign of manipulations. As mentioned before, a significant increase in receivables can be the result of revenue inflation through phony or early revenue recognition.

Inventory Index (II)

The Inventory Index is calculated by dividing inventory to costs of goods sold in period t and by scaling it to the same ratio in t-1. If the value is larger than 1, inventories increased disproportionally. This could mean a manipulation by exaggeratedly changing the value of the

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[10] Earnings divided by average total assets.

inventory through adapting new inventory accounting methods (Changing LIFO for FIFO etc.)

Gross-Margin Index (GMI)

The Gross-Margin Index is the ratio of the gross margin in t-1 to the gross margin in t. If the GMI is larger than 1, a decrease of the margin is detected. A decreasing margin means a decreasing overall performance of the business, which is an incentive for managers to manipulate and disguise the true performance of the company.

Sales Growth (SG)

Sales growth is a very popular measurement and is used in all detective models. In the work of Bladu, B., Amat, O. and Cuzdriorean sales in period t are divided by sales in t-1. This way a value larger than 1 signifies sales growth which is assumed to have a positive correlation with the probability of account manipulations.

Depreciation Index (DI)

The Depreciation Index compares the rate of depreciation[11] in t-1 to the same rate of the current period. As previously explained, it is assumed to have a positive relationship with the likelihood of manipulations as an increase of this ratio means a lower depreciation rate and inflated results.

Discretionary Expenses Index (DEI)

The Discretionary Expenses Index is equivalent to the SGAI. It scales expenses made for sales, general and administration in t to those made in t-1. Is the ratio decreasing it is considered a sign of account manipulation.

Leverage Index 1 (LI1)

The Leverage Index 1 is calculated by dividing the ratio of current debt to total assets of t to the same ratio in t-1. Is the result larger than 1, debt has increased and could result in a motivation to manipulate accounts to cope with current and future obligations.

Leverage Index 2 (LI2)

The Leverage Index 2 is similar to LI1 but current debt is standardized by sales.

Asset quality (AQ)

The index measures asset quality in t to asset quality in t-1. Asset quality is defined as the proportion of assets with less certain future benefits, like intangible assets, to total assets. An Asset Quality Index larger than 1 would mean an increase in these assets and more room for cost deferral (Beneish 1999).

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[11] Depreciation / (net PPE + Depreciation).

CFO Index 1 (CFO1)

The CFO1 is calculated by taking the ratio of cash flow from operations to net income in period t-1 and dividing it by the same ratio in t.

CFO Index 2 (CFO2)

The CFO Index 2 is calculated similar to the CFO Index 1, however operating cash flow is standardized by total assets.

Sales Index (SI)

The Sales Index is calculated with the ratio of sales to cash flow from operations. To obtain the index, the ratio of t is divided by the same ratio in t-1. If this measure is larger than one a disproportion increase of sales that is not reflected in the operating cash flow is detected. The increase could be rooted in manipulations.

The researchers come to the conclusion that not every single one of the twelve variables can be considered fundamental to detect account manipulations. They find in their results that there are only three critical explanatory variables, RI when increasing, LI1 when increasing, and SG when decreasing. To calculate the fraud indicating Z-Score the following formula will be used:

$$Z = 0,34RI + 2,25SG + 2,13LI1$$

A red flag signal is obtained at any score greater than 6,49.

1.3. Using non-financial methods to detect manipulations

Several researchers use available non-financial information and qualitative data to assess the chance of accounting fraud. Examples of non-financial measures are the number of employees, square feet of operations or customer satisfaction. Qualitative factors can be classified as opportunity factors or incentive factors. Benchmarking with competitors is a method that uses financial as well as non-financial data and compares them to the industry average or a specific group of direct competitors.

One of the reasons for the usage of non-financial data it that it is really difficult for companies to falsify independently produced measures like customer satisfaction (Brazel, Jones und Zimbelman 2012). Brazel et al. claim in their study that analytical tools that only focus on financial statement data are incomplete and therefore most likely ineffective.

1.3.1. Proportionality comparison

The way in which Brazel et al use the non-financial data is based on the assumption that some of the NFMs[12] are directly correlated with actual financial performance. The results of their study show, that the relationship between reported revenue growth and NFMs significantly differ for fraud firms compared to non-fraud firms, in a way that is highly disproportional.

A studied example is Del Global Technologies Corp., which engaged in improper revenue recognition starting from fiscal year 1997 on. From 1996 to 1997 Del's global revenue increased by 25 per cent while the total number of employees decreased 6,4 per cent. Their direct competitor on the other hand, Fischer Imaging Corp. legitimately reported a 27 per cent decrease in revenue over the same period that went alongside a 20 per cent decrease in employees.

This exemplifies how Del's auditors could have been more aware of the fraud by analysing the disproportionality of financial results towards non-financial measures.

1.3.2. Fraud Triangle

Earlier investigations found three factors to be especially influential on the likelihood that someone could commit fraud: opportunity, attitude and incentive ((Loebbecke, Eining und Willingham 1989), (Albrecht, Wernz und Williams 1995)). This concept is known as the fraud triangle. The term opportunity factor summarizes all circumstances that result in an environment that allow management to commit fraud (Brazel, Jones und Zimbelman 2012). Incentive factors comprise factors that exert pressure on management to palliate the financial performance or factors like performance-linked compensation schemes that result in a perceived benefit from committing fraud. Beasley (1996) (Beasley 1996) showed that archival research reveals that factors related to incentive and opportunity are related to fraud.

1.3.2.1.   Opportunity Factors

Following the suggestions of the fraud triangle, one category of non-financial measures can be summarized under the term "opportunity factors", meaning that they increase the opportunity and easiness to manipulate the financial statements.

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[12] Non-Financial Measures.

According to Beasley (1996) and Deloitte LLP (2004) (DELOITTE LLP 2004) amateurish corporate governance may lead to less monitoring and thus creates greater opportunity to commit scam.

Also Dechow, Sloan, and Sweeney (1996) (Dechow, Sloan und Sweeney 1996) provided proof for the assumption that corporate governance variables are correlated with the likelihood of fraud. They group the variables into "low management oversight" and "power of CEO over the board".

Opportunity factors can be:

    a. The percentage of company employees on the board of directors (measure of management oversight)
    b. The percentage of insiders in the auditing committee (measure of management oversight)
    c. The Auditor of this company has not a good reputation in terms of quality and experience (Brazel, Jones und Zimbelman 2012))
    d. CEO is also chairman of the board (measure of power of CEO over the board)
    e. Business area is difficult to understand

1.3.2.2. Incentive factors

The likelihood of a company committing any type of financial statement manipulation increases with increasing economic pressure. This increased pressure can give incentives to managers to falsify financial results.

Moments of special pressure arise form:

- Economic downturns (Burgstahler und Eames 2003)
- Mergers and acquisitions
- IPOs (Barth, Elliot und Finn 1999)
- Squeeze outs
- Problems to meet loan covenants (DeFond und Jiambalvo 1994)
- Expensive law suits

Incentives can also arise from the type of management remuneration. If management bonuses are linked to the companies' performance, financial statement fraud is more likely (Holthausen, Larker und Sloan 1995).

1.3.3. Benchmarking with competitors

It is indisputable that some companies are much more efficient than others. Nevertheless it is reasonable to compare the financial performance of a company to its direct competitors to check for unexplainable disproportional developments. Financial performance measures worth comparing are:

- The development of share prices
- The amount of paid audit fees as a percentage of revenue
- The development of revenue
- The revenue per employee

Hoitash, Kogan and Vasarhelyi (2006) (Hoitash, Kogan und Vasarhelyi 2006) investigated the effectiveness of comparing peer specific data for analytical procedures. They found peer models to be particularly effective when coordinated errors exist in multiple accounts. As account manipulations are similar to multiple errors in accounts, their research can provide reasoning for benchmarking financial performance measures to competitors as a way to identify manipulators.

2. Let's Gowex SA

2.1. Company and Industry Background

Let's Gowex S.A. (GOWEX) is a company that has its main pillars within the telecommunication and wireless Internet business sector. It was founded in 1999 by Jenaro García Martín and initially dedicated to buy and sell telecommunication capacities in Spain under the name Iber-X until 2008. From 2004 on Gowex focused on the installation of WI-FI in public spaces like streets, train station or airports. The company's goal was to create so called Wi-Fi cities all over the world. The main offices were in Madrid, Paris, London, Buenos Aires and Shanghai.

The IPO took place in March 2010 with a capitalisation of 36 million euros. Gowex started trading its shares in the MAB (Mercado Alternativo Bursátil) in Madrid.
In the following four years the capitalization experienced an increase in value by 2700% and, in addition to the MAB, shares started to get traded in the NYSE Alternex de Paris.

Companies operating in the free Wi-Fi sector make money through the initial set-up of the Wi-Fi network, its maintenance and media advertising on the landing page or within the app that customers need to use the service.

For this reason, Gowex's key success factor lies within its agreements with big institutions like airports or city governments for public Wi-Fi provision.

The business sector is fairly complicated, as it is very difficult to monetise, especially if the company does not have agreements with high demand locations as international airports. Many earlier attempts to establish competitive companies in that sector have failed. Gowex, however, experienced an increase of revenue by 60% year over year, which led to revenue of 180 million dollars in 2013 (Gowex Financial Statement 2013).

This revenue was based on an infrastructure of 100.000 hotspots in different locations, comprising cities, franchises and transportation[13].

2.2. Main competitors

2.2.1. Boingo Wirless

Boingo Wireless is an American company that provides mobile Internet access for wireless enabled consumer devices. It was founded in Los Angeles, California in 2001 by Sky Dayton. The company reports to own a so-called distributed antenna system (DAS) that provides Wi-Fi access reaching more than one billion consumers annually.

Boingo Wireless' products and services are very similar to Gowex's.

The company forms agreements to establish its wireless system in public and private locations such as airports, military bases, stadiums and universities and monetises those networks through carrier fees, user charges or advertising.

In addition to that Boingo earns money through a wholesale service. Within that service Boingo sells telecommunication companies access to a network of distributed Wi-Fi antennas at managed hotspot locations. Furthermore they license their proprietary software and provide software integration and development services to customers, allowing them to sell their own Wi-Fi services.

Like Gowex, Boingo sells advertising on its Wi-Fi platform through landing page access and display advertising. Advertisers can for example sponsor free Wi-Fi access in exchange for viewing advertisements. Boingo shares are traded in the NASDAQ. In 2013 they won the Global Traveller's Award for Best Wi-Fi Service. (Yahoo Finance 2015) (Wikipedia 2015).

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[13] An information that is today known to be not true, 100.000 hotspots most likely never existed.

2.2.2. Ipass Inc.

Ipass Inc., like Boingo, is an American company founded in Redwood Shores, California in 1996. It provides cloud-based mobility management and network connectivity services to enterprises and telecommunication carriers in the United States and internationally.

According to their website, they own the world's largest commercial Wi-Fi network, with inflight Internet and far more hotels (e.g. Hilton, Hyatt, Crown Plaza, Marriott, Sheraton), airports and business venues than any other network. Their goal is to provide users easy, reliable connectivity virtually anywhere they roam.

Ipass Inc.'s mobile network consists in 18 Million Wi-Fi hotspots in 120 countries and territories. Ipass Inc. shares are traded in the NASDAQ. (Yahoo Finance 2015) (Ipass Homepage 2015).

2.2.3. Towerstream

Towerstream was founded in 1999 by Philip Urso and Jeffrey Thompson. It is a fixed wireless and small cell rooftop tower company that owns, operated and leases its Wi-Fi infrastructure to tower, internet and cable companies, cellular phone operators and hosts a variety of customers on its network. They operate Wi-Fi networks for mobile data offloading in areas of mobile congestion as Manhattan, Miami Chicago and San Francisco.

Towerstream held its first public offering in January 2007 and trades on the NASDAQ Capital Market under the symbol TWER. The company provides a significant amount of Gowex's infrastructure. (Yahoo Finance 2015) (Wikipedia 2015).

2.3. The scandal

On July 1st 2014, Gotham City Research, a US-based short seller, published a report on Let's Gowex, claiming that 90% of its revenues are falsified and that their shares are actually worthless.

It is a common practice for specialised companies like Gotham City, Muddy Waters Research or The Street Sweeper to publish independent reports and disclose what they consider to be major flaws in business models or accounting practices. Some criticise them for profiting from stock movements following their publications, others find their reports to be important as it puts pressure on companies to remain truthful.

Fact is that Gotham Cities report led to Gowex declaring bankruptcy only a few days after the publication of the report (Wall Street Journal 2014).

Jenaro Garcia Martín explained that he manipulated the numbers to cover up huge losses that incurred after Neo Sky, a telecoms company, had sued Gowex for not paying its bills. What Gotham City Research LLC assumed and the CEO later admitted in court was that most of the contracts and agreements on which Gowex based its revenue were falsified. Either the scope of the contract was manipulated or it did not exist at all. In 2011 for example, Gowex claimed to have signed a 12 million euro deal with Buenos Aires' authorities to provide free Wi-Fi in the public places of the city. Buenos Aires' authorities however, confirmed meetings on this topic but they said they never signed a deal (Reuters 2014).

The CEO also admitted in court that he reported fake revenues from shell companies owned by relatives and his housekeeper (Reuters 2014). Two of these companies were owned by Let's Gowex's CFO Fernando Martinez. The companies acted as fake customers. "Basically, we started with three companies and what we do is: One company bills to Gowex, Gowex bills to another company and the third company bills to the previous one. It is a triangle," Garcia Martin told the court. "Basically, the structure enabled us to make capital increases" (Reuters 2014).

These fake structures also enabled Gowex to pay taxes, salaries and other running costs, as the successful appearance allowed the company to apply for bank loans and qualify for official subsidies. In 2013, Gowex paid 10, 6 million euros in taxes, or 27 per cent of its reported but fake profits.

2.4. Application of detection methods – Were there hints of account manipulation?

In the following section of the case study, the concepts introduced above are applied to the publically available information of Let's Gowex SA. The used data comes from Gowex's Annual as well as Managerial Reports from 2009 to 2013, the Amadeus Database[14] as well as the report published by Gotham City research LLC.

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[14] A database of public and private companies in European countries, including much of Eastern Europe.
Includes five years of exportable financial statement data as well as basic company and management information.

2.4.1. Ratios

2.4.1.1.   **Sloan accrual measure**

When applying the Sloan Accrual Measure (Sloan 1996) to the fiscal years of 2010 to 2013, there is no argument for concern on the first glance. **Table 1** shows the results of the calculations. None of the calculated values comes even close to the red flag benchmark of larger than 0,10 that Sloan defined. Nevertheless, we can notice an increase of accruals over the years as the difference of net income and cash flow from operations gets smaller. In 2013 Gowex has positive accruals for the first time. Striking in this development is the disproportional increase of net income compared to cash flow from operations, especially in 2012. That year, net income increases 136% while the cash flow from operations only increases 11%. Also in 2013 the increase in net income is bigger than the increase in cash flow.

These are signs of account manipulation, noticeable for the first time at the end of fiscal year 2012.

Sloan Accrual Measure	2013	2012	2011	2010	2009
net income	28.872.494	17.027.225	7.220.339	5.130.355	2.876.561
CFO	28.806.826	19.839.865	17.925.702	6.777.119	3.222.941
Accruals	65.668	-2.812.640	-10.705.363	-1.646.764	-346.380
Total assets	162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
net income increase	70%	136%	41%	78%	
cf from op. Increase	45%	11%	165%	110%	
Sloan accrual measure	0,0004 -	0,0279 -	0,1869 -	0,0333	> 0,1

Table 1: Calculations and results of the Sloan Accrual Measure.

2.4.1.2.   **Quality of earnings ratio**

As we can observe in **table 2**, the quality of earnings ratio proofs this development once again as it directly compared net income to cash flow from operations. In this case, the red flag benchmark is a value smaller than 1. None of the calculated values from 2010 to 2013 is below 1. However, in 2013, it is exactly 1 (0,998) after a steady decrease over time. The steady decrease in cash flow from operations compared to net income is a sign of manipulation, noticeable for the first time at the end of fiscal year 2012.

Quality of Earnings					
	2013	**2012**	**2011**	**2010**	**2009**
net income	28.872.494	17.027.225	7.220.339	5.130.355	2.876.561
CFO	28.806.826	19.839.865	17.925.702	6.777.119	3.222.941
Quality of Earnings	0,998	1,17	2,48	1,32	1,12	< 1,0

Table 2: Calculations and results of the Quality of Earnings ratio.

2.4.1.3. Quality of revenues

When the quality of revenues ratio is applied to the financial data of 2010 to 2013, we see red flags for three out of the four fiscal years. **Table 3** illustrates that, except for 2011, the values are all far below the benchmark of 1. As the ratio compares EBIT to actually collected cash, a low value could be a sign of artificially blown up revenues. We can see a heavy increase of accounts receivables, disproportionally high compared to the increase of revenues. From 2012 to 2013, accounts receivables increase 188% while revenue only increases 78%.

These are strong signs of manipulated revenues that could have been noticed in 2010 for the first time. Latest in 2013, the big difference between revenues (38,9 Mio.) and cash collected from customers (9 Mio.) could have raised questions.

Quality of revenues					
	2013	**2012**	**2011**	**2010**	**2009**
revenues EBIT	38.869.573	21.812.954	9.504.004	6.256.114	3.583.583
accounts receivables	45.560.291	15.792.522	9.892.935	25.931.985	20.720.540
Δ accounts receivables	29.767.769	5.899.587	-16.039.050	5.211.445	
cash collected from customers	9.101.804	15.913.367	25.543.054	1.044.669	
increase account receivables	188%	60%	-62%	25%	
increase revenue	78%	130%	52%	75%	
Quality of revenues	0,23	0,73	2,69	0,17		< 1,0

Table 3: Calculations and results of the Quality of Revenues ratio.

2.4.2. Linear methods

2.4.2.1. Altman Z-Score (Bankruptcy model)

Applying the Altman's Z-Score Model to the data of Gowex does not reveal any kind of financial distress. **Table 4** show, how the Z-values from 2011 to 2013 are much above the defined red flag value of 1,8. The working capital ratio is fine and we can observe an efficient use of assets regarding sales and revenue.

Remarkable, however, is the fact that Gowex reports retained losses in every year from 2009 to 2013, regardless of their increasingly high reported net income. As the retained losses cannot come from negative results in previous years, because no losses have been reported in the Profit and Loss account, the only other explanation would be that the company discovered accounting mistakes in the financial statements of previous periods. If this is the case, Gowex should have provided explanations in the notes of the annual report and show the adjustments in the statement of change of equity. However, no explanation has been given in none of the notes of the four years of reported retained losses and the statement of change of equity provides no clarification either. This is, if not a direct signal of account manipulation, at least a clear sign for lack of information and transparency, which is an indirect sign of manipulation. It is possible that in this way Gowex accounted for the incurred losses of the law suit against the company, that lead to the manipulations in the first place.

Apart from that interesting finding, the Z score does not give any signals that could be reason for concern. We have to keep in mind though, that the score is only as valid as the information that goes into it. It is a bankruptcy model, not a fraud detection model. As numbers were manipulated to appear financially healthy it was to be expected that the Altman score does not reveal financial distress. In fact, we now know that Jenaro García Martín manipulated Gowex financials for at least the last four years so all periods of our analysis are falsified. That the Z-Score does not give any red flag can be regarded as a proof of a technically well-done manipulation.

	2013	2012	2011	2010	2009	multiplicators
working capital / total assets	0,37	0,63	0,49	0,39	0,35	1,2
retained earnings / total assets	-0,0035	-0,0007	-0,0001	-0,0006		1,4
EBIT / toal assets	0,24	0,22	0,17	0,13	0,12	3,3
value of equity / value of liabilities	9,91404289	0,731019216	0,5693211			0,6
sales / total assets	1,12	1,13	1,16	1,00	1,16	0,999
Z-Score	8,295	3,045	2,641			<1,8
						1,8>3
						>3

Table 4: Results of the Altman Z-Score Model.

2.4.2.2. Beneish M-Score

The application of the M-Score model developed by Beneish at al. (1999) gives interesting insights into the financial information of Gowex.

As can be seen in **table 5**, the M-Scores for 2013 and 2012 give reasons to believe that accounts have been manipulated. Especially in 2013, where the value is above the red flag benchmark for both, the eight- and the five-variables model (see **table 6** for the five variable

model). This is when adapting Beneish's least published benchmark value of bigger than -1,78. In older versions of his work (before 2013), he identified -2,22 do be the red flag signal. Using this number, there would be an even clearer hint for manipulations and already in 2012.

	2013	2012	2011	2010	coefficient	fixed value
Days Sales in Receivables Index (DSRI)	1,81	0,93	0,28	0,89	0,92	-4,84
Gross Margin Index (GMI)	0,94	0,92	0,83	0,82	0,528	
Asset Quality Index (AQI)	1,36	0,73	0,91	0,77	0,404	
Sales Growth Index (SGI)	1,60	1,71	1,34	1,41	0,892	
Depreciation Index (DEPI)	1,45	0,72	1,04	1,77	0,115	
Total accruals to total assets (TATA)	0,0004	-0,0279	-0,1869	-0,0333	4,679	
Sales, General and Administrative Expenses Index (SGAI)	0,97	0,96	1,12	1,18	-0,172	
Leverage Index (LVGI)	1,341	0,801	0,720	0,915	-0,327	
summproduct	3,698	2,691	1,086	2,362		
M-Score	-1,142	-2,149	-3,754	-2,478	Beneish 2013	> (-1,78)
M-Score	-1,142	-2,149	-3,754	-2,478	Beneish 1999	> (- 2,22)

Table 5: Results of the M-Score Model with eight variables and two different red flag benchmarks ((Beneish 1999), (Beneish, Lee und Nichols 2013)).

	2013	2012	2011	2010	coefficient	fixed value
Days Sales in Receivables Index (DSRI)	1,81	0,93	0,28	0,89	0,823	-6,065
Gross Margin Index (GMI)	0,94	0,92	0,83	0,82	0,906	
Asset Quality Index (AQI)	1,36	0,73	0,91	0,77	0,593	
Sales Growth Index (SGI)	1,60	1,71	1,34	1,41	0,717	
Depreciation Index (DEPI)	1,45	0,72	1,04	1,77	0,107	
summproduct	4,449	3,336	2,606	3,126		
M-Score	-0,391	-1,504	-2,234	-1,714		> (-1,78)

Table 6: Results of the M-Score Model with five variables.

The chance for manipulation reaches the alarming level due to several high scores within the variables in 2013 and 2012, as **table 7** demonstrates. The rate of Days Sales in Receivables increased in a suspicious way from 2012 to 2013. This could mean that Gowex artificially increased its sales by heavily extending the credit period. Also the proportion of assets for which future benefits are potentially less certain (intangibles) increased from 2012 in a magnitude that is typical for manipulators. Sales growths is very high for three out of the four studied periods, giving a potential incentive to manipulate accounts to keep up with this growth. However, sales growths are not uncommon for a young, growing company. What is more interesting is the fact that there are big fluctuations in the depreciation rate, hinting to Gowex adapting new depreciation methods frequently to lower the rate of depreciation and hereby keep the value of their assets high. Furthermore, the model detects a disproportional increase of sales compared to SGA expenses[15]. Following Lev and Thiagarajan (1993) that is

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[15] Sales, General and Administration expenses.

considered a reason for concern. As it is really easy for a company to reduce SGA expenses, through cutting down marketing spending for example, it is relatively uncomplicated to increase the profit on the short run and make the business look more efficient. Last but not least, the proportion of leverage increased in the last years, incrementing the motivation to manipulate accounts.

	Manipulators	Non Manipulators	Gowex			
	mean	mean	2013	2012	2011	2010
DSRI	1,465	1,031	1,806	0,931	0,284	0,887
GMI	1,193	1,014	0,942	0,916	0,834	0,818
AQI	1,254	1,039	1,363	0,730	0,914	0,766
SGI	1,607	1,134	1,597	1,714	1,343	1,411
DEPI	1,077	1,001	1,453	0,722	1,041	1,766
TATA	0,031	0,018	0,000403	-0,027909	-0,186857	-0,033264
SGAI	1,041	1,054	0,97	0,96	1,12	
LVGI	1,111	1,037	1,341	0,801	0,720	0,915

Table 7: Red flags for every single index of the Fraud M-Score Model.

2.4.2.3. Fraud F-Score Model

The Fraud F-Score Model is not easily applicable to the case of Gowex. It is based on U.S. reporting standards and a lot of required input is not given in Gowex's annual reports. That is why some financial metrics for this model are not directly available and computations were therefore done using Generally Accepted Accounting Principles.[16] The ratios we are able to calculate are analogous to the once already analysed. Change in inventory is a new concept, however in the case of Gowex and its industry, inventory does not play any role, as inventory is insignificantly small. The change in return on assets is negative in the beginning and then increases remarkably by 96% from 2011 to 2012 and 45% from 2012 to 2013.

2.4.2.4. Z-Value of Vladu, Amat and Cuzdriorean

As mentioned in the conceptual part, this score is particularly interesting for the analysis of Gowex because it has been developed (and is improved continuously) on the basis of data from companies that are listed in the Spanish stock market. The authors found only three of the studied ratios to be significant, however, all of them are applied to the financial statements of Gowex to investigate if in this specific case they would reveal some interesting insights.

Calculating the Z-Score gives an overall red flag for the fiscal year of 2013, as can be seen in **table 8**.

The Receivables Index shows once again, that there is a disproportional increase in accounts receivables from 2012 to 2013. It looks like many sales were registered without actually receiving cash. The Inventory Index is not useful for the analysis of Gowex, as it is an online service company with barely any stock. It is not an option for them to increase inventory to improve their results. The Gross-Margin Index shows no deteriorations in gross margin but the opposite. This measure does not disclose incentives for manipulation. The Sales Growth Index however, demonstrates a constant and large ratio of sales growth over the four periods. Gowex can be considered a heavily growing company, which makes it more prone to creative ways of accounting. The Depreciation Index shows red flags for 2010, 2011 and 2013. In these periods the rate of depreciation has been decreased, giving rise to the assumption that results have been palliated through decreasing the rate at which assets loose value. The Discretionary Expenses Index shoes the same signs as the SGA index, namely a decrease of discretionary expenses compared to sales, which is a common development in manipulator firms. In addition to that, the Leverage Index 1 gives a red flag in 2013 for a great increase in current liabilities compared to total assets. The increase of current liabilities intensifies the pressure on a company and is a phenomenon frequently observed in the balance sheets of account manipulators. Other alarming signals come from the Asset Quality Index and the Sales Index. The first ratio shows an increase in intangible fixed asset, which means a potentially increased involvement in cost deferral. The Sales Index shows a disproportional increase of sales compared to cash flow from operation.

	2013	2012	2011	2010	coefficient	
Receivables Index	1,81	0,93	0,28	0,89	0,34	
Sales Growth	1,60	1,71	1,34	1,41	2,25	
Leverage Index 1	1,52	0,71	0,52	0,83	2,13	
Z-Score	7,45	5,68	4,23	5,25		> 6,49

Table 8: Results of the Z-Score calculations by Bladu, Amat and Cuzdriorean.

2.4.3. Non-financial methods

2.4.3.1. Proportionality comparison

Comparing Gowex with the Del example, there is no development in opposite direction concerning revenue and number of employees. However, there are remarkable differences in the magnitude of the growth. From 2009 to 2010, the number of employees increased by 20

per cent while net income increased 78 per cent. From 2011 to 2012, employees increase 40per cent while net income increased 136 per cent.

Looking at the per employee ratios we can see that revenue per employee is not only far superior compared to its direct competitors, but also to other businesses (Gotham City Reseach LLC 2014). The revenue per employee in fiscal year 2012 for example was 1,6 Mio. Details will be shown in part 2.4.3.4.

Gowex, as a company operating in the service industry, has a very important externally created performance measure: customer satisfaction. In the digital business we have the advantage that customer reviews are publically available online. If investors would have searched the web for reviews, they could have seen that ratings for the app that come directly from users were really poor (**Exhibit 1**). They complain that the service is not working at all or that the Wi-Fi connection is really bad. These measures are contrary to the financial results stated by Let's Gowex.
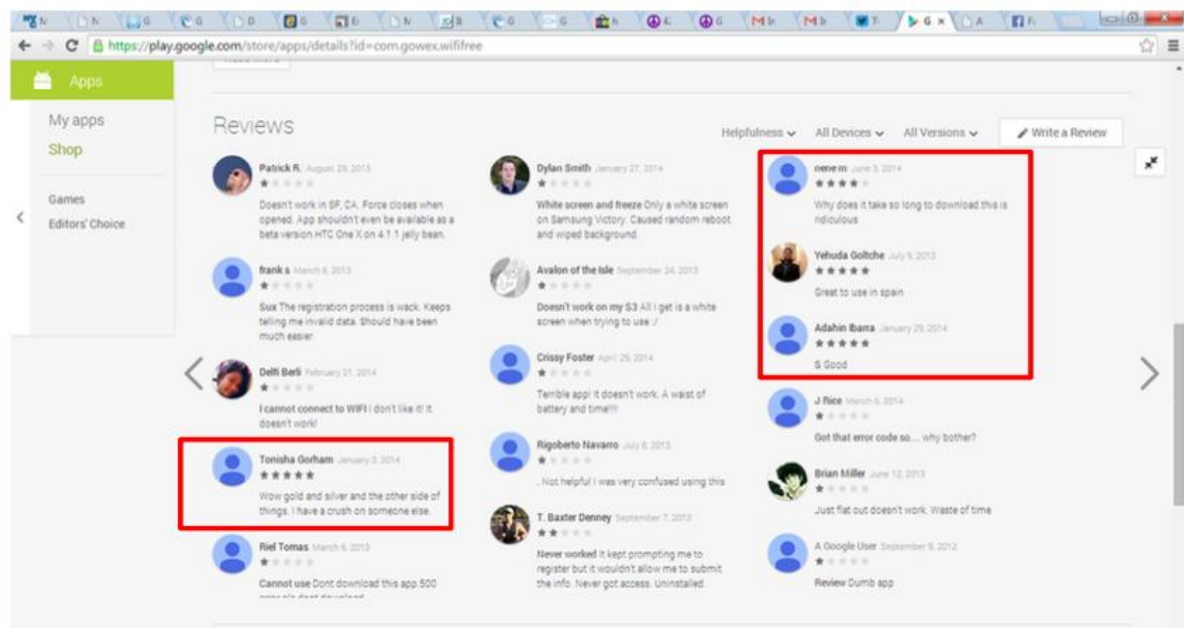
Notes:
- *One of the three 5-star rated reviews appears to be fake.*
- *Two of them are suspiciously short, lack any descriptive detail, as to why the app is good.*
- *The only 4-star rated review should be a 1-star rating, judging by the review comment.*
- *Most of the 1-star ratings describe the app freezing, not working, and other specific grievances.*

Exhibit 1: Screenshot of app rating online; *Source: Gotham City report, p.20.*

Analysing these information you can also see that the app does not appear to get a lot of recognition (Gotham City Reseach LLC 2014). This should raise questions about how big the customer base actually is.

In the case of Let's Gowex it does not make sense to compare revenue to a nonfinancial measure like square feet of operations for example. What would be interesting is to compare the financial performance to the number of hotspots the company operates. Unfortunately, Gowex never officially disclosed that number. The researchers from Gotham City estimated the number of hotspots to be 5530, basing their assumption on the hotspots they were able to find on Gowex's own, public Hotspot Map. In 2013, that would mean revenue per hotspot of about 7.000€. iPass on the other hand as revenue of \$1 per hotspot per year (Gotham City Reseach LLC 2014). The inability to obtain information about Gowex's actual number of hotspots is evidence for the difficulty with non-financial measures. Apart from number of employees a lot of them are company internal and not necessarily publically available. In the case of Gowex however, the non-disclosure of the number of hotspots in combination with the fact that they do not break down revenues in any metric can be considered a lack of transparency and a hint for manipulation.

2.4.3.2. Opportunity factors

During all analysed years Gowex showed red flags in qualitative signals that are summarised under the term "opportunity factors". That was done because all these signals show that Gowex had unusually big room for manipulation thanks to factors that increased the simplicity of manipulation.

First of all, the firm has an amateurish corporate structure. The board is composed of the CEO García Martín, the CEO's wife, Florencia Mate, and CFO Marugan (Reuters 2014), whose past is quite suspect as there is very little information available about him (Gotham City Reseach LLC 2014). In addition to that, Florencia Mate is head of investor relations and the one who is signing off all the annual reports (**Exhibit 2**).

Exhibit 2: Signature of the CEO's wife on the Annual Report of 2011.

What is also striking is that Ricardo Moreno Warleta's name is mentioned on the last page of every report, but except for 2009 his signature is always missing. He entered Gowex as "independent advisor"[17] to prepare the IPO and claimed in court that he has not been aware of any manipulations (El Mundo 2014).

Another red flag is revealed by a look at the audit company that audited Gowex's annual reports. They hired a company called M.A. Auditores SL, which is almost unknown in Spain. Gotham City Research claimed that the auditors worked out of a private apartment and appeared very amateurish (Gotham City Reseach LLC 2014). Gowex seemed to be the only publically listed company they were auditing. It is really rare for a company of such a high market value to choose an unknown auditor.

But not only the composition of the firm and the choice of the auditor gave increased opportunity for manipulation. Also the composition of its supposed customer base should have raised questions. Now we know that Gowex manipulated its results through a complex network of artificial customers that have been very well established and quite obscure. A lot of contracts were simply falsified which is really hard to detect. Nevertheless, what has always been very obvious from the beginning through the offering circular for the IPO in 2010 is that SeaSunTel was not only Gowex largest customer, but also its largest supplier (see **table 9**).

Client name	Balance at 31/12/08	FY sales
Sea Sun Tel S.L.	8 218 648	12 226 207
Line Informatica, S.L.	1 102 381	3 284 056
As Tic Broker S.L.	1 967 070	1 967 070
Virtual Knowledge Connectivity	522 000	522 000
Intelligent DATA	167040	638000
Comcast Wireless	136 858	136 858
Panel Consulting, S.L.	1 708 723	4 756 133
Ci Netcom Tic Broker Group S.L.	1 566 292	1 566 292
Ricardo Casero Y asociados, Ri	1 332 134	680 000
TOTAL	**16 721 146**	**26 260 792**

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[17] Consejero independiente.

Suppliers	Balance at 01/01/08	Purchases	Balance at 31/12/08
LINE INFORMATICA	837 659		
Seasuntel, S.L.	7 660 843	15 031 432	2 116 046
Panel consulting	1 380 533		
Ricardo Casero	275 000		175 000
Humania	202 660	765 600	968 260
Bpc 21 Telecommunications E		2 628 524	2 628 524
BTE Y E		2 579 461	2 579 461
Bd Soluciones De Telecomnicaciones, S.L.		2 614 814	2 614 814
L&N World Telecom Broker S.L.		519 744	519 744
F&M Twenty-One Telecom Network, S.L.		518 501	518 501
Knowledge Professional Serv.Co		174 000	174 000
TOTAL	**10 356 695**	**24 832 076**	**12 294 350**

Table 9: Sea Sun Tel listed as biggest client and one of the biggest suppliers at the same time; source: offering circular, June 2010.

This relationship gives a lot of room for round-trip transactions and should be a clear warning sign. If this connection had raised suspicions, a closer look at SeaSunTel would have maybe revealed that the company is closely tied to Gowex's CEO and probably does not even exist (Gotham City Reseach LLC 2014).

Last but not least, an important opportunity factor that contributed to the "successful fraud" over numerous periods is the fact that Gowex operates in an industry that is difficult to understand. The public Wi-Fi sector is a new business and for outsiders it is difficult to understand how the companies monetize the provision of free Wi-Fi. The entire revenue making process is quite obscure and the fact that Gowex does not provide detailed information on the different revenue items makes it even more difficult to assess.

2.4.3.3. Incentive factors

In the case of Let's Gowex SA there were two main incentive factors that increased the likelihood of accounting fraud.

First there was the situation of increased pressure right before, during and after the IPO. Gowex went public because it needed capital and for that it needed to attract investors and potential shareholders by appearing financially healthy.[18]

The main reason it needed capital was that Gowex was sued by another company for not paying its bill and had to make overdue payments. These payments incurred losses and led

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[18] "My goal was that within two or three years, when we could make the jump to the Nasdaq, that it would all come together"

Gowex into a "downward spiral" according to García Martín. However, this lawsuit is not necessarily publically available information, and the IPO on its own is not a very distinctive red flag.

2.4.3.4. Benchmarking with competitors

Comparing important measures with those of the direct competitors is very informative as it gives a feeling of what values are "normal" in the industry and abnormal findings can be analysed in depth.

The most striking abnormality between Gowex and its peers is the amount of audit fees the company has been paying over the examined periods. Gotham City Research found out that Gowex pays $1/10^{th}$ to $1/20^{th}$ for auditing of what their peers pay (Gotham City Reseach LLC 2014) (**see table 10**).

	2009	2010	2011	2012	2013
Boingo			1,80%	1,86%	1,67%
iPass			0,67%	0,84%	0,97%
Ruckus			0,50%	0,84%	0,48%
Gogo			0,00%	0,46%	0,44%
Towerstream			0,89%	0,70%	n/a
Average			0,77%	0,94%	0,87%
GOWEX	0,07%	0,07%	0,06%	0,05%	0,04%

Audit Fee as percentage of revenues

Table 10: Audit fees as percentage of revenues for Gowex and its competitors, source: Gotham City report, p. 6.

These values fit to a company that makes 10 per cent of the revenue that Gowex claims to have, which the information we have today demonstrates to be true. This competitor comparison is a striking red flag signal for account manipulation.

An even more obvious abnormality can be found by comparing the development of Gowex's share prices with its direct competitors in **exhibit 3**.
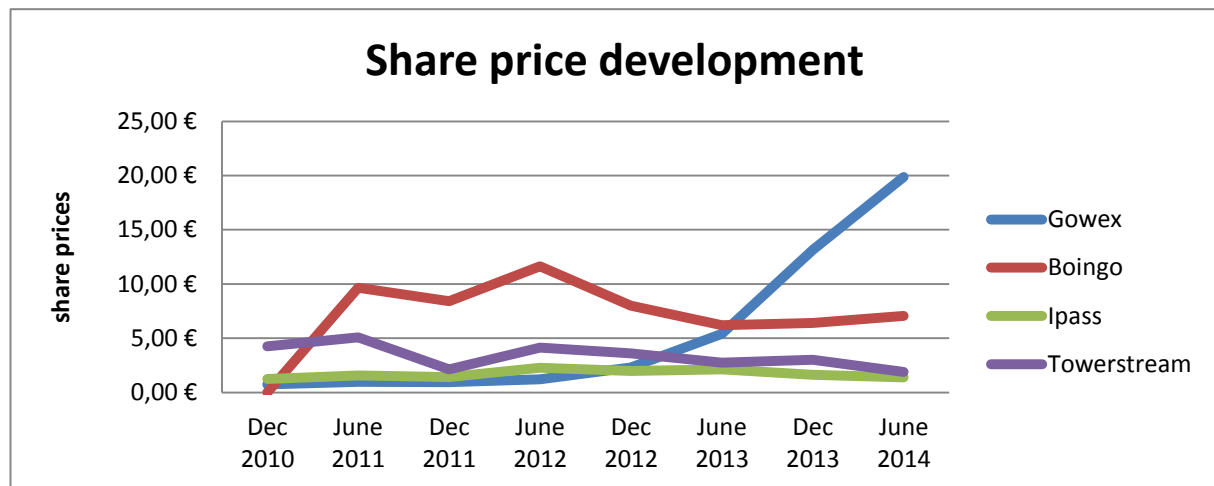
Exhibit 3: Development of share prices, source: finance.yahoo.com

While the share prices of the competitors where continuously shrinking or stagnating, Let's Gowex's shares were taking off in an unusual pace.

Likewise, as mentioned before, the revenue per employee ratio is extremely high, not only compared to direct competitors but also to other successful companies as **table 11** shows very impressively (Gotham City Reseach LLC 2014).

Revenue per employee					
	2009	**2010**	**2011**	**2012**	**2013**
Boingo			0,47 €	0,47 €	0,38 €
iPass			0,28 €	0,26 €	0,23 €
Google	0,87 €	0,98 €	0,98 €	0,85 €	0,87 €
Microsoft	0,47 €	0,50 €	0,57 €	0,59 €	0,59 €
Facebook				0,96 €	1,06 €
GOWEX	1,21 €	1,60 €	0,98 €	1,41 €	1,06 €

Table 11: Revenue per employee; Source: Gotham city report, p.6.

Furthermore, Gotham City raised doubts about the number of Gowex's revenues based on the fact that Towerstream, one of the main competitors, earned just $1 Mio in 2013 from their shared wireless segment while Gowex claimed to have a net income of €29 Mio. Especially when taking into account that Towerstream is actually the supplier and owner of half of Gowex hotspots (Gotham City Reseach LLC 2014).

In general, Gowex's revenue growth far outpaced peers. While Gowex prepared to go public, its international competitors turned losses.

3. Conclusion

This case study utilizes the reporting problems of Gowex to develop a warning system that can be used by stock supervisors to detect accounting fraud earlier and minimize its negative impact.

For that purpose, both quantitative and qualitative red flags are used and analysed on their practicality. An overview of the findings in form of a table can be found in **Appendix 1**.

The study shows that several of the applied quantitative ratios and fraud scores provide red flag signals a lot earlier than 2014, the year of the detection of the fraud committed by Gowex. Especially in 2012 and 2013 hints for manipulation get denser. However, the results obtained from the ratios can be vague and different ratios lead to opposite conclusions. The classical financial risk ratios proof to be a valid way to identify suspicious development. Also the M-Score and the Z-Score by Bladu, Amat and Cuzdriorean give signs of manipulation, in the last periods of our analysis. The Fraud F-Score is not a valuable model to analyse companies that are reporting in Europe, as a lot of the required input is not available in their financial statements.

Comparing the development of non-financial and financial measures we find huge disproportions. Some of the measures have already been used for previous studies and were found to be concrete signals of financial statement manipulation, such as the comparison of revenue growth to the development of number of employees.

In addition to that, the assumptions of the fraud triangle are applied to organise qualitative signals into opportunity and incentive factors. Several opportunity factors are found in the case of Gowex that create an environment with a lot of room for financial statement scam. The composition of Gowex's board and the choice of the auditor are red flag signals from the year of the IPO on. Also the fact that the whole business concept is difficult to understand regarding to where exactly the money comes from. This opaqueness is aggravated by incomplete financial statements. Gowex has never split down its revenue into different sources of income before. In addition to that, in this study it has been explored that Gowex hides the reasons for changes in their equity, as they do not give any reasoning for the retained losses they report every year of the analysed period.

Moreover, Gowex has been found to be in a position of increased pressure in fiscal year 2010 due to the IPO and a lawsuit against it that cost the company a lot of money and incurred losses. These are valid signs for increased incentives to manipulate, however the law suit is not necessarily publically available information.

Finally, important performance measures of Gowex are compared to the measures of its direct competitors in the free Wi-Fi sector. The enormous differences between Gowex and its peers are found to be the most obvious signs for manipulation. The performance seems to be too good to be true and should have led to further investigations as the one conducted by Gotham City Research much earlier.

Even though the qualitative signs look much more convincing and obvious than the quantitative ones, collecting the required information is a tedious task and requires in-depth analysis. Without any upfront hint for shenanigans a conduction of such an in-depth analysis is unlikely.

On the basis of these findings, we recommend to automatize the comparison among the performance measures of different publically listed companies.

A valid method for the CNMV to prevent big scale scandals would be to do a standardized ratio and score analysis with the Beneish M-Score, the fraud model developed by Bladu, Amat and Cuzdriorean and the financial ratios that were used in this case study. They should also use simple proportion analysis with non-financial measures. Digitally, the companies could be grouped in industries so that revenue and share price development could be displayed and compared very easily. If red flags appear, an in-depth search for other qualitative signals such as board composition, quality of auditors and alleged customer companies can be initiated.

The accounting fraud committed by Let's Gowex SA has been tremendous and very well conducted. The CEO put a lot of effort into the falsification of agreements, creating fake customer companies and paying taxes punctually on profits he never made. The business in which Gowex is operating is difficult to understand which makes it less transparent and easier to manipulate. An important conclusion, even if very general, is that investors should keep in mind Warren Buffett's advice to "never invest in a business you can't understand" (Forbes 2013). Investor and other stakeholders were simply amazed by the magnitudes in which Gowex grew without ever questioning were the money actually came from and if the growth

was in any way realistic. A problem seemed to be that both stakeholders and politicians were too happy about the great development of a Spanish tech-start-up and wanted Gowex to be a success. Only very few investors and analysts expressed scepticism about the company's performance. NFinance Securities analyst Pierre Schang,, released a note in March 2013 saying that he was "disturbed" that Gowex was turning big profits while competitors were registering losses or much smaller profits (Forbes 2013). It is fair to say that many times the best recommendation is to simply follow common sense:

"If it seems too good to be true, it most likely is".

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5. Appendix

Appendix 1: Summary of findings

Quantitative Measures	Results	Red flag signal	Periods
Sloan Accrual Measure	Sloan accrual measures for every year far away from critical red flag value; with Sloan accrual measure no signs of manipulations		
Increase of net income compared to CFO	Increase in net income much bigger than increase in operating cash flow in years **2012 and 2013**	🚩	2012 2013
Quality of Earnings Ratio	Due to shrinking operating cash flow: Red flag in **2013**	🚩	2013
Quality of Revenue Ratio	Heavy increase in accounts receivables, disproportional to increase in sales: red flags for **2010, 2012 and 2013**	🚩	2010 2012 2013
Altman Z-Score	No red flags; especially in 2012 and 2013 far away from risk of bankruptcy; however, calculating the score we found that retained losses are not explained		
Fraud M-Score	If using the 8 variable M-Score red flag in **2013.** Using the 5 variable M-Score red flag in **2012 and 2013.** Several red flags among the separate ratios as early as **2010**	🚩	2012 2013
Fraud F-Score	Not very well applicable applicable to the financial statement of Gowex		
Z-Score Bladu, Amat	Red flags in every period, in 2013 seven out of twelve ratios show warning signs for account manipulation	🚩	2010 2011 2012 2013

Non-financial measures	Results	Red flag signal	Periods
Net income development compared to number of employees increase	In two periods, net income grew much faster than number of employees	🚩	2010 2012
Revenue per employee	Operating revenue per employee incredibly high for all of the studied periods	🚩	2010 2011 2012 2013
Revenue compared to customer satisfaction	Customer satisfaction and reception of the product seems to be really poor, while revenue is continuously growing	🚩	(2013)
Revenue per number of hotspots	In 2013 Gowex has a revenue of 7000€ per hotspot while iPass has a revenue of $1 per hotspot	🚩	(2013)

Qualitative measure	Results	Red flag signal	Periods
Corporate structure	Amateurish corporate structure: CFO and CEO with shady past, CEO's wife is head of investor relations	🚩	2010 2011 2012 2013
Independence of auditing board	CEO's wife is signing off auditing reports	🚩	2010 2011 2012 2013
Auditor	Unknown auditor not one of the big 4, operates from an apartment, Gowex is its only listed company	🚩	2010 2011 2012 2013
Most important customers	Most important customer is biggest supplier at the same time, gives perfect room for round-trip transaction, company is de facto tied to Gowex's CFO	🚩	2010 2011 2012 2013
Transparency of the industry	Gowex operates in a business sector that is difficult to understand	🚩	2010 2011 2012 2013
Completeness of financial statement	No explanation for retained losses (found thanks to calculating Altman Z-Score)	🚩	2010 2011 2012 2013
Moment of increased pressure	The moment of the IPO is always a period of increased pressure and therefore has increased likelihood of account manipulation. In addition to that Gowex got sued to pay a lot of money to an other company.		2010

Benchmarking to competitors	Results	Red flag signal	Periods
Audit fee as % of revenue	Gowex only paid 1/10th to 1/20th in audit fees compared to what their direct competitors paid	🚩	2010 2011 2012 2013
Share price development	While the share prices of the competitors where continuously shrinking or stagnating, Let's Gowex's shares were taking off in an unusual pace, similar to the creation of a bubble	🚩	2013
Revenue per employee	Revenue per employee is extremely high compared to direct competitors and other companies	🚩	2010 2011 2012 2013
Revenue of closely related companies	The owner and supplier of half of Gowex hotspots earns €1Mio from their shared wireless segment while Gowex claims to earn €29 Mio	🚩	2013

Appendix 2: Calculations Altman Z-Score

	2013	2012	2011	2010	2009
current assets	100.484.022	80.177.124	41.294.099	41.173.080	26.523.954
current liabilities	40.252.420	16.373.230	13.170.806	21.783.831	15.972.020
working capital	60.231.602	63.803.894	28.123.293	19.389.249	10.551.934
total assets	162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
working capital / total assets	**0,37**	**0,63**	**0,49**	**0,39**	**0,35**
retained earnings	-564.337	-73.398	-7.634	-27.939	
total assets	162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
retained earnings / total assets	**-0,0035**	**-0,0007**	**-0,0001**	**-0,0006**	
EBIT	38.869.573	21.812.954	9.504.004	6.256.114	3.583.583
total assets	162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
EBIT / toal assets	**0,24**	**0,22**	**0,17**	**0,13**	**0,12**
average share price	9,28	1,77	0,98	0,73	
shares outstanding	72.313.360	12.934.268	12.934.268	n/a	n/a
market value of equity	**671.067.981**	**22.828.983**	**12.610.911**		
current liabilities	40.252.420	16.373.230	13.170.806	21.783.831	15.972.020
non-current liabilities	27.436.210	14.855.748	8.979.984	4.803.561	1.795.175
book value of liabilities	**67.688.630**	**31.228.978**	**22.150.790**	**26.587.392**	**17.767.195**
value of equity / value of liabilities	9,91404289	0,731019216	0,56932106		
sales	182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
total assets	162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
sales / total assets	**1,12**	**1,13**	**1,16**	**1,00**	**1,16**

Appendix 3: Calculation Beneish M-Score

variables	2013	2012	2011	2010	2009
accounts receivables	45.560.291	15.792.522	9.892.935	25.931.985	20.720.540
total sales	182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
Days sales in receivables	0,25	0,14	0,15	0,52	0,59
Days Sales in Receivables Index (DSRI)	1,81	0,93	0,28	0,89	
net sales	182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
COGS	88.296.325	58.687.256	36.943.067	31.171.711	24.478.270
Gross Margin	0,52	0,49	0,45	0,37	0,30
Gross Margin Index (GMI)	0,94	0,92	0,83	0,82	
tangible fixed assets (PPE)	54.709.685	17.116.906	13.285.182	5.769.197	1.714.585
current assets	100.484.022	80.177.124	41.294.099	41.173.080	26.523.954
total assets	162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
asset quality	0,05	0,03	0,05	0,05	0,07
Asset Quality Index (AQI)	1,36	0,73	0,91	0,77	
sales	182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
Sales Growth Index (SGI)	1,60	1,71	1,34	1,41	
tangible fixed assets (PPE)	54.709.685	17.116.906	13.285.182	5.769.197	1.714.585
depreciation	13.252.347	6.768.474	3.418.698	1.562.788	1.035.255
depreciation rate	0,19	0,28	0,20	0,21	0,38
Depreciation Index (DEPI)	1,45	0,72	1,04	1,77	
net income	28.872.494	17.027.225	7.220.339	5.130.355	2.876.561
cash flow from operations	28.806.826	19.839.865	17.925.702	6.777.119	3.222.941
accruals	65.668	-2.812.640	-10.705.363	-1.646.764	-346.380
total assets	162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
Total accruals to total assets (TATA)	0,000403	-0,028	-0,187	-0,033	-0,011
employee costs	4305450	2756449	2152372	1548893	994976
other operating expenses	41753074	26911322	15937994	10449263	6237631
SGA expenses	46058524	29667771	18090366	11998156	7232607
sales	182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
SGA expenses increase	55%	64%	51%	66%	
sales increase	60%	71%	34%	41%	
SGA / sales	25%	26%	27%	24%	21%
Sales, General and Administrative Expenses Index (SGAI)	0,97	0,96	1,12	1,18	
non-current liabilities	27.436.210	14.855.748	8.979.984	4.803.561	1.795.175
current liabilities	40.252.420	16.373.230	13.170.806	21.783.831	15.972.020
total assets	162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
total debt / total assets	42%	31%	39%	54%	59%
Leverage Index (LVGI)	1,341	0,801	0,720	0,915	

42

Appendix 4: Calculations Z-Score Bladu, Amat and Cuzdriorean

		2013	2012	2011	2010	2009
Receivables Index	**RI**	**1,81**	**0,93**	**0,28**	**0,89**	
accounts receivables		45.560.291	15.792.522	9.892.935	25.931.985	20.720.540
sales		182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
receivables / sales		0,25	0,14	0,15	0,52	0,59
Inventory Index	**II**	**0,34**	**0,23**			
inventories		9.883	19.355	53.260	0	0
COGS		88.296.325	58.687.256	36.943.067	31.171.711	24.478.270
inventory / cogs		0,00011	0,00033	0,00144	0	0
Gross-Margin Index	**GMI**	**0,89**	**0,85**	**0,74**	**0,74**	
net sales		182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
COGS		88.296.325	58.687.256	36.943.067	31.171.711	24.478.270
Gross-Margin		1,07	0,95	0,81	0,59	0,44
Sales Growth	**SG**	**1,60**	**1,71**	**1,34**	**1,41**	
sales		182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
Depreciation Index	**DI**	**1,45**	**0,72**	**1,04**	**1,77**	
depreciation		13.252.347	6.768.474	3.418.698	1.562.788	1.035.255
c		54.709.685	17.116.906	13.285.182	5.769.197	1.714.585
rate of depreciation		0,19	0,28	0,20	0,21	0,38
Discretionary Expenses Index	**DIE**	**1,55**	**1,64**	**1,51**	**1,66**	
Discretionary Expenses		46.058.524	29.667.771	18.090.366	11.998.156	7.232.607
Leverage Index 1	**LI1**	**1,52**	**0,71**	**0,52**	**0,83**	
current liabilities		40.252.420	16.373.230	13.170.806	21.783.831	15.972.020
total assets		162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
current liabilities/assets		0,247	0,162	0,230	0,440	0,527
Leverage Index 2	**LI2**	**1,54**	**0,73**	**0,45**	**0,97**	
sales		182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
curent liabilities		40.252.420	16.373.230	13.170.806	21.783.831	15.972.020
		0,220	0,143	0,197	0,439	0,454
Asset Quality	**AQ**	**1,36**	**0,73**	**0,91**	**0,77**	
tangible fixed assets		54.709.685	17.116.906	13.285.182	5.769.197	1.714.585
current assets		100.484.022	80.177.124	41.294.099	41.173.080	26.523.954
total assets		162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
asset quality		0,047	0,035	0,047	0,052	0,068
CFO Index 1	**CFO1**	**1,17**	**2,13**	**0,53**	**0,85**	
CFO		28.806.826	19.839.865	17.925.702	6.777.119	3.222.941
Net income		28.872.494	17.027.225	7.220.339	5.130.355	2.876.561
		0,998	1,165	2,483	1,321	1,120
CFO Index 2	**CFO2**	**1,11**	**1,59**	**0,44**	**0,78**	
Total assets		162.865.928	100.778.094	57.291.849	49.505.425	30.285.141
		0,18	0,20	0,31	0,14	0,11
Sales Index	**SI**	**1,10**	**1,55**	**0,51**	**0,67**	
sales		182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
CFO		28.806.826	19.839.865	17.925.702	6.777.119	3.222.941
sales/CFO		6,33957705	5,762917338	3,72040208	7,32479229	10,91537605

Appendix 6: Consolidated Profit and Loss Account of Let's Gowex SA (2009 to 2013)

Profit & loss account	31/12/2013	31/12/2012	31.12.11	31/12/2010	31/12/2009
Operating revenue (Turnover)	182.925.301	114.902.937	66.697.902	49.936.091	35.452.058
Sales	182.623.093	114.335.502	66.690.819	49.640.989	35.179.613
Costs of goods sold	88.296.325	58.687.256	36.943.067	31.171.711	24.478.270
Gross profit	94.628.976	55.648.256	29.747.752	18.764.380	1.073.688
Other operating expenses	55.759.403	9.524.923	20.243.748	12.508.266	7.390.105
Operating P/L [=EBIT]	**38.869.573**	**21.812.954**	**9.504.004**	**6.256.114**	**3.583.583**
Financial revenue	1.375.836	785.265	373.010	177.530	29.866
Financial expenses	805.134	385.270	227.016	124.624	109.999
Financial P/L	570.702	399.995	131.344	52.906	-80.133
P/L before tax	**39.440.275**	**22.212.949**	**9.635.348**	**6.309.020**	**3.503.450**
Taxation	10.567.781	5.185.724	2.415.008	1.178.665	626.889
P/L after tax	28.872.494	17.027.225	7.220.339	5.130.355	2.876.561
P/L for period [=Net income]	**28.872.494**	**17.027.225**	**7.220.339**	**5.130.355**	**2.876.561**
Amortisations	13.252.347	6.768.474	3.418.698	1.562.788	1.035.255
employee costs	4.305.450	2.756.449	2.152.372	1.548.893	994.976
other operating expenses	41.753.074	26.911.322	15.937.994	10.449.263	6.237.631

Appendix 7: Consolidated Balance Sheet of Let's Gowex SA (2009 to 2013)

Balance sheet	31/12/2013	31/12/2012	31.12.11	31/12/2010	31/12/2009
Assets					
Fixed assets	**62.381.906**	**20.600.970**	**15.997.750**	**8.332.345**	**3.761.187**
- Intangible fixed assets	6.172.793	3.069.909	2.001.071	2.041.149	1.884.029
- Tangible fixed assets	54.709.685	17.116.906	13.285.182	5.769.197	1.714.585
- Other fixed assets	1.499.428	414.155	711.497	521.999	162.573
Current assets	**100.484.022**	**80.177.124**	**41.294.099**	**41.173.080**	**26.523.954**
- Stock	9.883	19.355	53.260	0	0
- Debtors	45.560.291	15.792.522	9.892.935	25.931.985	20.720.540
- Other current assets	54.913.848	64.365.247	28.376.847	15.241.095	5.803.414
* Cash & cash equivalent	3.587.610	9.225.666	2.971.057	4.163.293	5.468.831
TOTAL ASSETS	**162.865.928**	**100.778.094**	**57.291.849**	**49.505.425**	**30.285.141**
Liabilities & Equity					
Shareholders funds	**95.177.298**	**69.549.116**	**35.141.058**	**22.918.033**	**12.517.946**
- Capital	723.134	723.134	646.713	575.572	489.857
- Other shareholders funds	94.454.164	68.825.982	34.600.320	22.342.461	12.028.089
Non-current liabilities	**27.436.210**	**14.855.748**	**8.979.984**	**4.803.561**	**1.795.175**
- Long term debt	24.432.356	11.269.505	6.215.575	3.345.881	1.215.145
- Other non-current liabilities	3.003.854	3.586.243	2.764.409	1.457.680	580.030
* Provisions	n.a.	n.a.		n.a.	n.a.
Current liabilities	**40.252.420**	**16.373.230**	**13.170.806**	**21.783.831**	**15.972.020**
- Loans	3.809.491	2.043.411	2.947.889	1.210.888	1.447.568
- Creditors	23.182.807	8.812.831	6.138.750	16.107.725	12.238.772
- Other current liabilities	13.260.122	5.516.988	10.190.067	4.465.218	2.285.680
TOTAL SHAREH. FUNDS & LIAB.	**162.865.928**	**100.778.094**	**57.291.849**	**49.505.425**	**30.285.141**
retained earnings (losses)	-564.337	-73.398	-7.634	-27.939	-

Appendix 8: Consolidated Cash Flow Statement of Let's Gowex (2010 to 2013)

	31.12.13	31.12.12	31.12.11	31.12.10
CASH FLOW FROM OPERATIONS	**28.806.826**	**19.839.865**	**17.925.702**	**6.777.119**
Income before Taxes	**39.440.275**	**22.212.949**	**9.635.348**	**6.309.020**
Adjustments	**9.688.261**	**6.064.216**	**1.742.502**	**1.808.900**
Amortization	13.252.347	6.768.474	1.035.255	1.562.788
Changes in provisions	860.286	2.264.899	901.115	1.552.375
Subsidies	-302.202	-535.644	-272.445	-254.679
Impairment of non-current assets	1.026	-785.265	0	0
Deterioration of financial instruments	4.356	383.261	161	2.702
Financial Income	**-1.375.836**	**2.009**	**-29.644**	**-177.530**
Financial income	799.091	0	109.733	108.417
Exchange differences	1.687	-2.033.519	105	25
Exchange differences of financial instruments		-7.091.112	0	13.480
Other income and expenses	-3.552.494	33.905	0	-998678
Changes in Working Capital	**-14.117.493**	**-8.164.485**	**-1.810.430**	**-834945**
Stock	9.472			
Trade and receivables	-29.923.870	-38.847	-2.187.776	-6.763.820
Other current assets	-9.268	-93.009	0	-2.000
Creditors and other payables	17.218.835	-13.317	623.788	5.384.927
Other current liabilities	132.387			
Other non-current assets and liabilities	-1.545.050	1.184.641	-246.442	545.948
Other cash flow from operating activities	**-6.204.217**	**-1.346.188**	**-212.581**	**-505.856**
Interests paid	799.091	-383.261	-109.733	-108.417
Interests received	1.375.836	785.265	29.539	177530
Corporation taxes (Paid)	-6.727.369	-2.030.384	-1.132.387	-274.404
Other receivables (paid)	-53.593	282.192	0	-300.565
CASH FLOW FROM INVESTMENT ACTIVITIES	**45.627.114**	**-35.872.294**	**-27.724.980**	**-16.445.087**
Investment payments	**49.463.221**	**-37.872.179**	**-784.907**	**-16.445.087**
Group companies and associated	-514.389			
Intangible assets	-67.722	-36.574	-895.450	-1.010.887
Tangible asssets	-48.771.431	-11.598.529	-753.695	-4.763.636
Fixed financial assets	-109.680	-65.465	-12.302	-27.722
Other financial assets	0	-26.171.611	876.540	10.642.842
Divestment charges	**3.836.108**	**1.999.885**	**19.085**	**0**
Group companies and associated	**13.496**			
Fixed tangible assets	0	22.287.038	19.805	0
Other financial assets	3.822.611			
CASH FLOW FROM FIANCIAL ACTIVITIES	**111.182.232**	**17.921.976**	**8.607.041**	**8.362.431**
Accounts receivable and payable for equity instru	**-1.905.015**	**17.921.976**	**415.768**	**5.628.784**
Issuance of equity instruments	0	17.729.487	0	6.000.001
Purchase of own equity instruments	-2.151.341	-760.309	0	-477.956
Grants, donations and bequests received (paid)	246.327	952.797	415.768	106.739
Accounts receivable and payable for liability instr	**14.087.247**	**5.365.062**	**1.483.486**	**2.733.647**
Debts with credit companies	13.997.405	3.734.081	1.152.409	1.841.191
Other debts	89.842	1.721.957	1.075.002	1.100.042
Debts with credit companies	0	-90.976	-258.652	-109.210
Debts with group companies and associated companies		0	0	-98.377
Other debts		-1.000.000	-485.273	0
Dividend payments	**-2.000.000**	**-1.000.000**		
Increase in cash (decrease)	**-5.638.056**	**6.254.602**	**4.357.093**	**-1.305.537**
Treasury at the beginning of the year	**9.225.666**	**2.971.057**	**1.111.739**	**5.468.831**
TREASURY AT THE END OF THE PERIOD	**3.587.610**	**9.225.666**	**2.971.057**	**4.163.294**

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