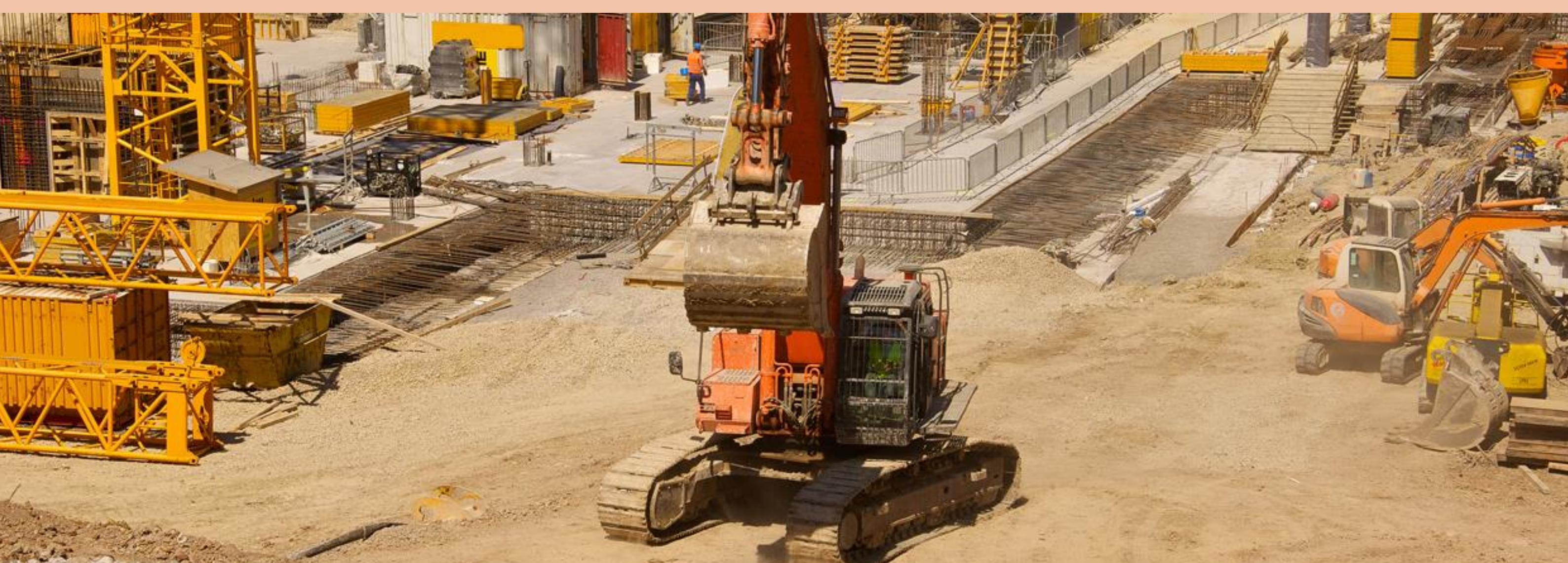
SECTORIAL ANALYSIS

April 2015

CONSTRUCTION OF ROADS AND MOTORWAYS

COFACE ECONOMIC PUBLICATION

By Iancu Guda (Macroeconomic Analyst Coface Romania)



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1. THE FINANCIAL SITUATION OF COMPANIES IN THE SECTOR

Coface analysis covered all companies with principal NACE code 4211 (Construction of roads and motorways) and with financial activity during 2013 properly reported to Ministry of Finance.

Based on the above criterions, the resulted output consisted of 1,829 companies with reported financials for the 2013 exercise. Based on the financials published by the Ministry of Finance, the resulted companies have generated a consolidated turnover of 11.7 BRON, down by 22% compared to previous year. As per the bellow table, the number of active companies reported with principal activity Construction of roads and motorways registers a stable trend during 2013.

Table 1. Sector trend during 2011-2013

Indicator	Year 2013	Year 2012	Year 2011
Number of companies	1,829	1,801	1,640
Turnover RON	11,764,023,814	15,122,934,739	13,939,773,506
Turnover Index	-22%	8%	

Following the companies distributions based on turnover thresholds, we state:

- 26% from the companies that have submitted financials for 2013 exercise, have actually no real activity;
- 62% from active companies reported a turnover bellow 100 KEUR during 2013, with a corresponding value weight of 1%;
- Only 282 active companies report a turnover above 1 MEUR, representing a number weight of 15%, but generating 94% value weight from the total revenues reported inside the sector.

Tabelul 2. Distributia firmelor din sector in functie de cifra de afaceri

Turnover Threshold (EUR)	Number	Number %	Total Turnover (EUR)	Turnover %	Average Turnover (EUR)
No activity	482	26%	85,055	0%	-
100 K EUR	649	35%	20,397,953	1%	31,430
100K -500 K EUR	309	17%	71,615,334	3%	231,765
500K-1.000 K EUR	107	6%	79,243,341	3%	740,592
1-5 MEUR	178	10%	414,992,633	16%	2,331,419
5-10 MEUR	56	3%	397,320,258	15%	7,095,005
10-50 MEUR	37	2%	759,064,032	29%	20,515,244
50-100 MEUR	8	0%	552,268,006	21%	69,033,501
Over100 MEUR	3	0%	367,329,641	14%	122,443,214
Grand Total	1,829	100%	2,662,146,145	100%	1,455,520

Source: Ministry of Finance, Data analyzed by Coface

Following the profit and loss account for the companies under analysis, as well as the impact on the related balance sheet accounts, we state that:

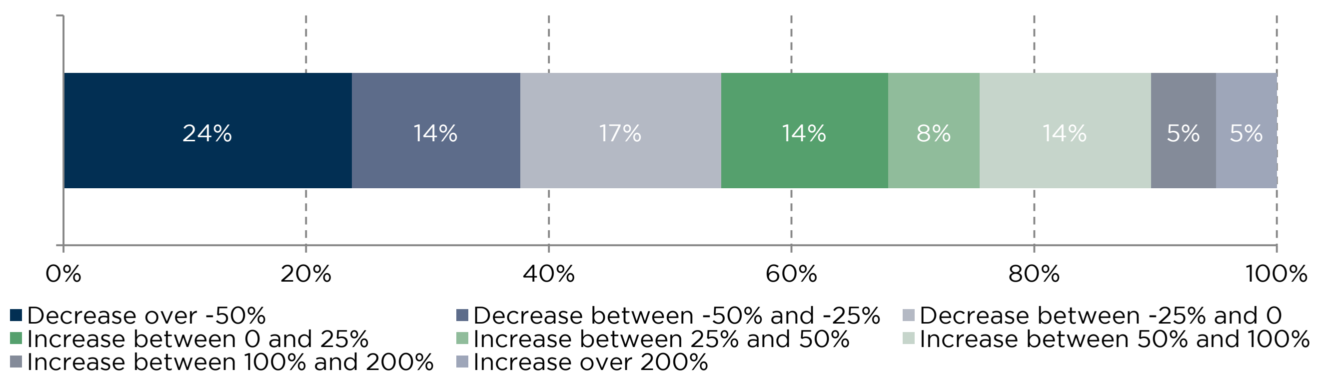
- Unlike 2012, with a reported total turnover advance of 8%, 2013 has seen some significant decrease in this regard. Thereby, the total turnover decrease during 2013 was 22% as compared to last year, with 55% companies reporting lower revenues. The distribution of all companies depending on turnover index for 2013 is illustrated by Graph 1;

- In addition to final yield analysis recorded during 2013, it is important to assess also the performance dynamics inside the sector. Thus, Graph 2 captures the numeric distribution of companies in terms of net result dynamics during 2012 – 2013, illustrating if the overall performance has deteriorated or improved. 48% of the active companies have reported lower performance during 2013, out of which 30% have switched from profit to loss;

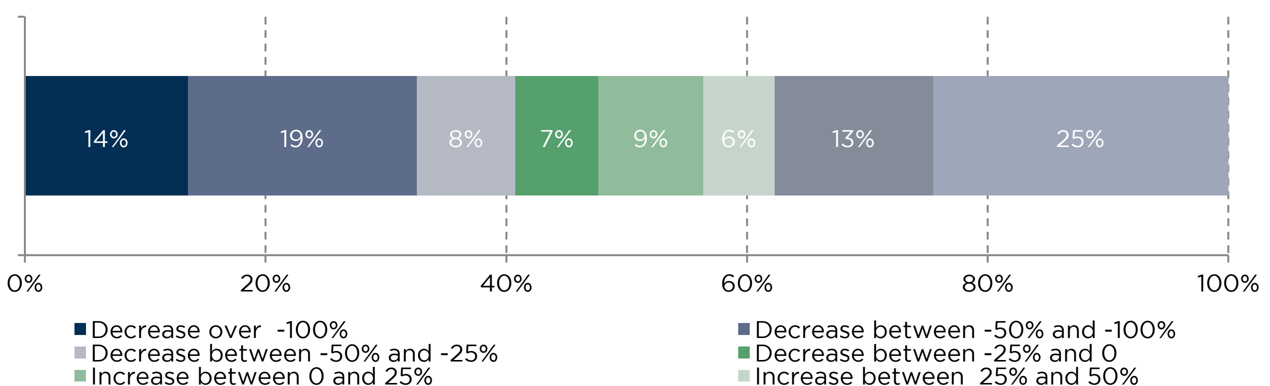
- Nevertheless, the overall profit rate on sectorial level has increased. Thus, as revealed by Graph 3, which illustrates the numerical distribution according the net revenue reported by turnover, 34% from the companies have reported a net loss by the end of 2013, with 23% reporting a loss above -20% and 19% reporting profits above 20%. Therefore, the overall final net result reported during 2013 for the entire sector under analysis was 6%, as compared to the 0% breakeven level reported for the previous year.

Hence, we can conclude that 2013 highlighted decelerating revenue with improved overall performance, as compared to the previous year.

Graph 1. Turnover index distribution 2013/ 2012

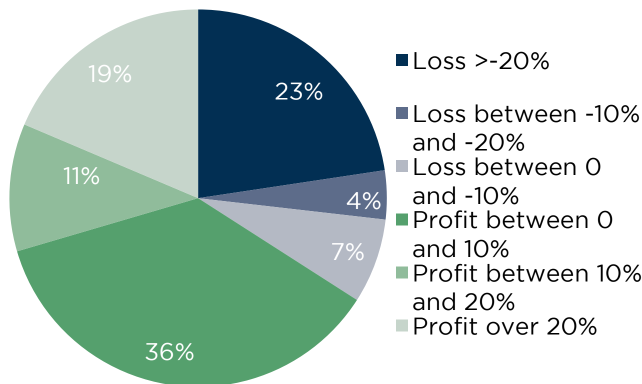


Graph 2. Net result index distribution 2013/ 2012



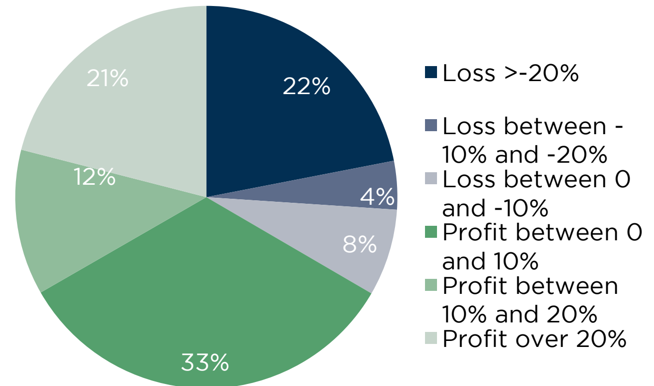
Source: Ministry of Finance, Data analyzed by Coface

Graph 3. Net Result Margin %for 2013



Source: Ministry of Finance, Coface analysis

Graph 4. EBIT margin % for 2013



Source: Ministry of Finance, Coface analysis

Employing the Herfindahl-Hirschman[1] index to assess the market concentration level, we observe that the construction of roads and motorways sector reports a moderate concentration level, the HHI index during the last five years being below 200. This conclusion is confirmed also by the low market share of top 10 players inside the market, close to 33%[2].

Amid the highly aggressive competition framework, with many companies reporting a high level of P&L leverage, it is important to assess the balance sheet, the capital structure and long term investment sources pattern. The importance of such analysis is emphasized by the twofold impact of P&L leverage that can amplify profits amid increasing markets, but also magnify losses under recession periods.

Mirroring the financial resources with the investment allocation pattern, we observe the following:

- During 2013, the companies active under the assessed sector reported large disinvestment, amid lowering sales and sluggish outlook of construction projects plans. Thus, CAPEX[3] weight in total fixed assets was -33% during 2013, in decrease compared with last year, when CAPEX weight value was 7%. The negative value can indicate both impairment measures to match the market value and amortization not covered through new amortization. Average amortization was relatively stable, with 5% value during 2013, as compared to 4% level for 2012;
- Companies activating in the construction of roads and motorways sector have recorded a fragile working capital during 2013, with similar pattern as in 2012, amid lower permanent capital compared to long term investments in fixed assets;
- Companies activating in construction of roads and motorways sector have recorded a fragile working capital during 2013, with similar pattern as in 2012, amid permanent capital[4] covering just marginally the long term investments in fixed assets;
- Total debt level increased during 2013, with indebtedness rate reported for 2013 of 60% and data captured by Graph 6 signaling high ratio of companies overleveraged. Hence, 26% from

[1] $HHI=\sum_{k=1}^{n}(MS_k*100)^2$;where MS_k is the market share of company k

HHI index assessment:

- Values less than 1.000 signals a market with low concentration level
- Values between 1.000 - 1.800 signals a market with moderate concentration level
- Values above 1.800 signals a market with high concentration level

[2] Industries with above average concentration level report a consolidated market share of top 10 players above 50%

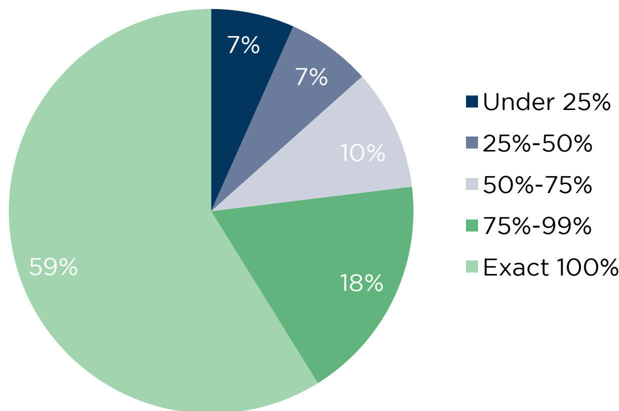
[3] CAPEX = Capital Expenditure = Investment in long term assets = Δ Fixed Tangible Assets + Amortization

[4] Permanent Capital = Long Term Debt + Equity

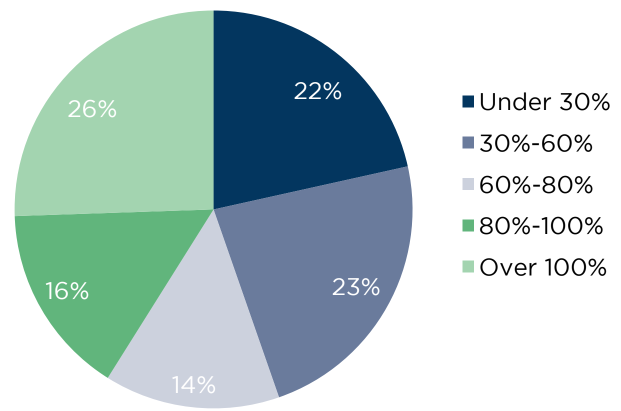
the active companies report a negative equity ratio (equivalent with debt level above 100%) and 16% have debt rate above 80%, those being mainly small size or below average companies.

Moreover, financing resources are mostly short term horizon, with 59% of the companies reporting 100% short term debt. In these conditions, short term debt weight in total borrowed capital has increased from 58% (level reported during 2012) up to 83% (during 2013), the companies from the appraised sector reporting a lengthening of payment terms, amid depreciated working capital and decreasing cash conversion cycle length.

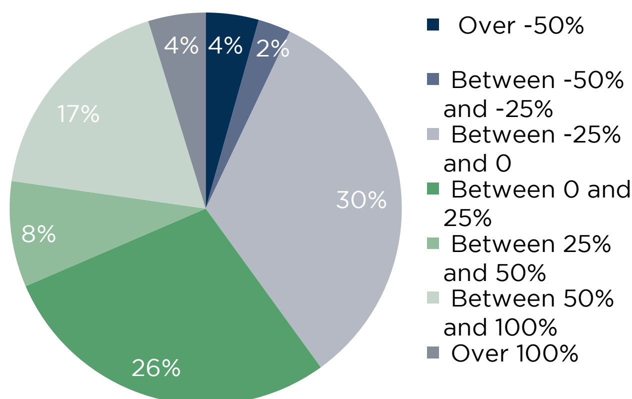
Graph 5. Short Term Debt: Total Debt



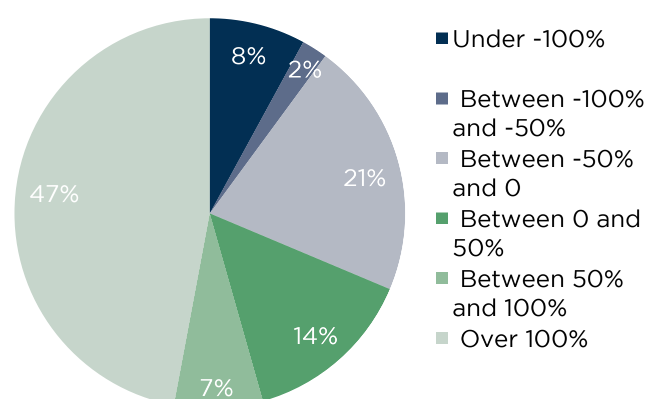
Graph 6. Debt Level Distribution



Graph 7. CAPEX: Fixed Assets Distribution



Graph 8. Capex: Amortization Distribution



Source: Ministry of Finance, Coface analysis

Source: Ministry of Finance, Coface analysis

Companies activating in the construction of roads and motorways sector feature an aggressive financing of operating cycle, with debt mainly mature in short term. Therefore, the financing of operating cycle, as well as the cash conversion cycle speed are both very important in properly assessing the short term financial equilibrium. In the following we will observe lengthier repayment of debt, although the receivables collection period has decreased, net profits have increased and fixed asset weight in total assets has decreased down to 37% amid negative capex. Moreover, the mix of financial indicators should have fueled better liquidity, but this is not visible in the bank accounts, the short term debt coverage ratio through net treasury decreasing down to 13% during 2013. This can only mean one thing: the surplus capital has been directed to paying dividends of group financing.

Thus, the current rate reported for the entire sector during 2013 was 1.23, decreasing from 1.58 registered for the previous year. Moreover, the short term debt coverage rate through net treasury has decreased from 17%, level reporting during 2012, down to 13% in 2013. The pattern was reported amid increasing short term debt and decreasing of receivable collection period from 239 days (2012) down to 225 days (2013). The liquidity indicators deterioration is reported amid increasing suppliers and bank debt, the average payment term of the short term[5] debt being 269 days, higher as compared to the level reported in 2012, respective 189 days. Given the operating cycle[6] length of 292 days during 2013, the cash conversion cycle was 23 days, in deterioration by two month as compared to the previous year.

Coface assessment deepened the understanding of the financial autonomy for the companies activating in freight transport by road sector, by analyzing the following two indicators:

Defensive Interval Ratio (D.I.R.)[7] = (Current Assets - Inventory)/ DCE[8], where DCE = (Operating Expense + Financial Expense - Amortization)/ 360.

This indicator is used as a proxy for the average sector autonomy period. Thus, the Defensive Interval Ratio indicator is expressed in number of days and computes the average period the sector is capable of covering the monetary operating and financial expenses[9] by considering only the net treasury and collection of current receivables (without new sales). Financial analysis standard norms recommends the indicator values to exceed 90 days, signaling good short term financial autonomy and reduced exposure to external negative shock from decreasing revenue. Very high values raise questions related to:

(i) High dependence on receivables collection for large clients
(ii) Receivables performance and the extend that they will default without proper provisioning.

Companies activating in the appraised sector feature average short term autonomy of 257 days provided than all balance sheet receivables will cash in, this being unlikely given the lengthy DSO of 225 days average period for 2013.

Cash Coverage Ratio (C.C.R.[10]) = DCC[11]/ DCE = {[Turnover - Δ(Receivables) + Δ(Deferred Revenue)]/ 360}/ {(Operating Expense + Financial Expense - Amortization)/ 360}.

This indicator measures the coverage ratio of average daily expenditure by average daily collection. Hence, the indicator cancels the time spread necessary for revenue to be collected and expenditure to be paid, being thus a forward-looking estimator for cash flow statement. Values bellow one signal higher exposure for the appraised sector to liquidity pressures, as long as expenditures monetize faster in payments as compared to revenues that are collected lengthier (in other words, suppliers exert higher pressure over the sector as compared to the pressure the sector is releasing over to the final customer). Amid values bellow one, the appraised sector signals increasing financing needs for fuelling working capital. It is important to emphasize that the cash coverage ratio mirrors the balance between collected revenue and expenditures matured during the current financial exercise, signaling therefore the payment and collection performance. Hence, this indicator does not reveal

[5] DPO = Days of Payables Outstanding
[6] CO (Operating cycle) = average period inventories are on hold (DIH = Days of Inventory on Hand) + average period of receivables collection (DSO = Days of Sales Outstanding)
[7] Defensive Interval Ratio = computes the number of days the company can work without new sales, and based only on current receivables and net treasury
[8] DCE = Daily Cash Expenditure, estimation of average daily expenditure level reported in P&L (profit and loss) during the year
[9] Monetized through payments during the current financial exercise
[10] CCR = Cash Coverage Ratio, coverage ratio of matured expenditures by collected revenue
[11] DCC = Daily Cash Collection, estimation of daily cash collection reported by the cash flow statement

the balance liquidity from the balance sheet perspective, and values above one should be seen with optimistic outlook provided that working capital is also positive (current rate value is above one) and with good earnings quality. The cash coverage ratio for the entire sector during 2013 is exactly 100%, the fragile rate being exposed to negative forward-looking shocks.

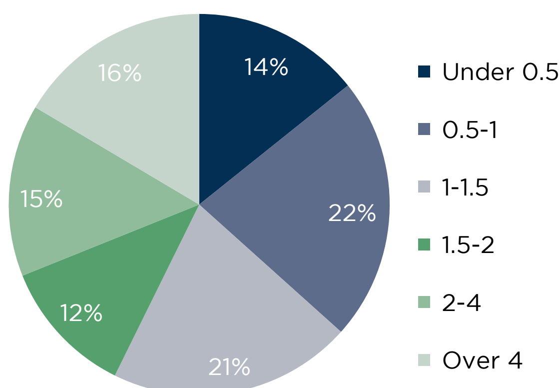
Considering that all liquidity indicators, including current rate, defensive interval ratio and cash coverage ratio, are very close to the minimum thresholds indicated by the financial analysis norms, we highlight the fragile liquidity depicted by the companies activating in the construction of roads and motorways sector, with high exposure to negative shocks coming from default receivables or revenue decrease. This pattern is also confirmed by the numbers captured in the following table, that illustrate the performance under stress test scenario with negative external shocks of ±5%; ±10%; ±15%; ±20% and ±25% applied to receivables (increasing, thus simulating default receivables not collected by the companies activating in the appraised sector) and turnover (decreasing revenue for the companies in the same sector).

Table 3. Stress Test Scenario: Forward-Looking Results

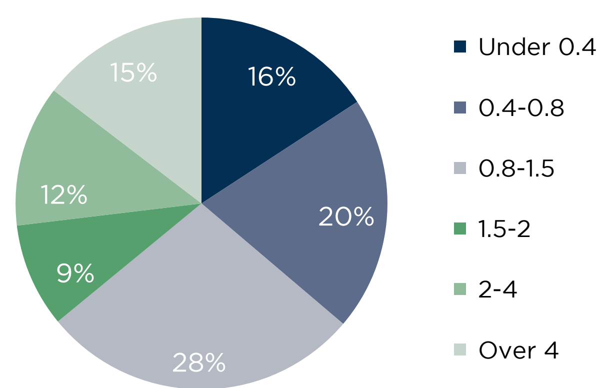
Scenario Details	Receivables	Turnover	Cash Coverage Ratio
Receivables increase (default)	5%	0%	97%
	10%	0%	94%
	15%	0%	91%
	20%	0%	88%
Turnover decrease	0%	-5%	95%
	0%	-10%	90%
	0%	-15%	85%
	0%	-20%	80%
Default receivables and turnover decrease	5%	-5%	92%
	10%	-10%	84%
	15%	-15%	76%
	20%	-20%	68%

The following Graphs (9 – 15) capture the conclusions drawn hereinafter, by illustrating the numeric distribution of all companies activating in the construction of roads and motorways sector depending on different thresholds for each indicator. We highlight that 34% out of the companies settle the payments to suppliers in a lengthier fashion as compared to receivables collection.

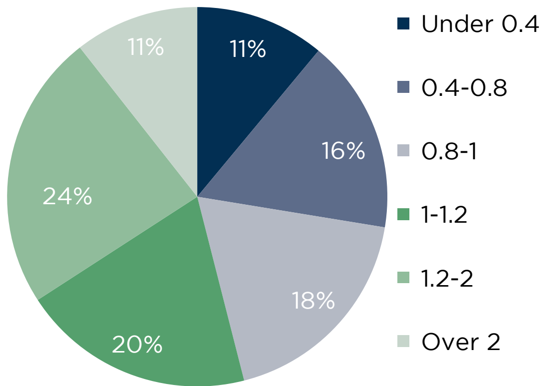
Graph 9. Current rate distribution 2013



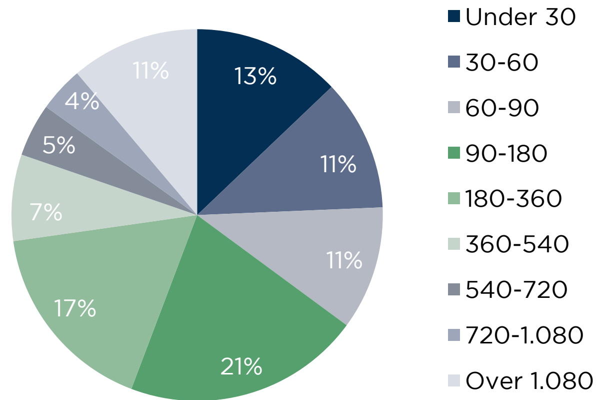
Graph 10. Quick rate distribution 2013



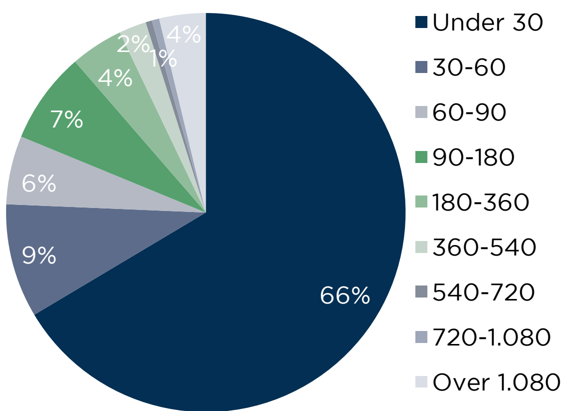
Graph 11. CCR distribution 2013



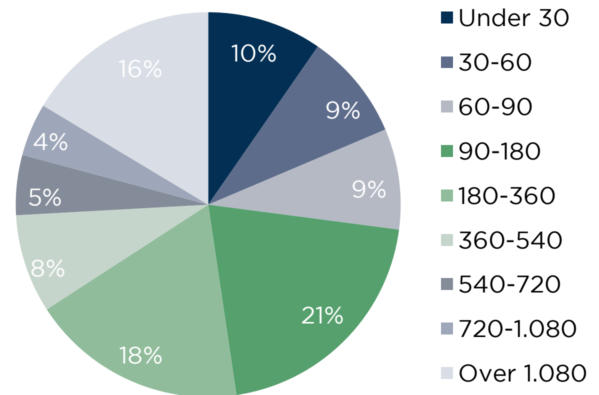
Graph 12. DSO distribution 2013



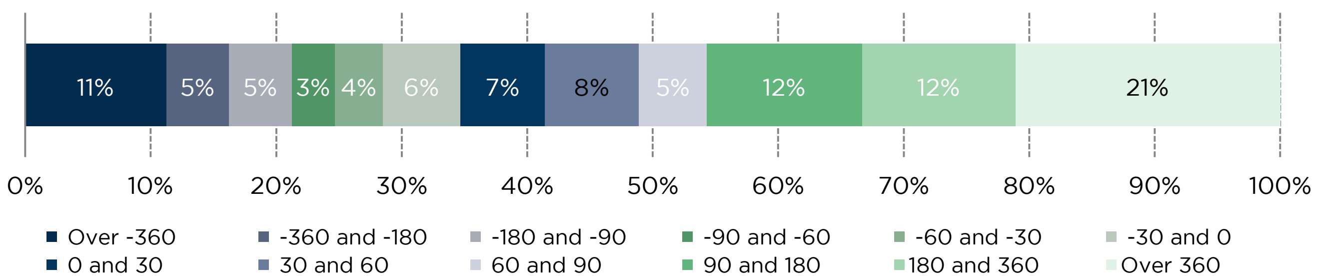
Graph 13. DIH distribution 2013



Graph 14. DPO distribution 2013



Graph 15. CCC distribution 2013



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2. ALTMAN Z-SCORE MODEL

Given the multiple and complex nature of the risks previously documented, an overall picture (macro) can be obtained following a bottom-up analysis, starting from a microeconomic approach and consolidating later the results at industry level. One of the commonly used and known models of sectorial risk analysis (starting from the granulate degree of all companies in the sector), is the Altam Z-score methodology:

$Z=0{,}717 * X_1+0.847 * X_2+3.11 * X_3+0.420 * X_4 +0.998 * X_5$; where:

X_1	Working Capital/ Assets	Reflects liquidity. A very low proportion of the working capital (especially negative values for more than 3 consecutive years) in total assets may raise funding problems for the company.
X_2	Reported Results Balance / Assets	Reflects reserves and investment strategy of the company. Lower or decreasing values of reported results (figure on balance, the equity component) may indicate a decreasing trend of the profits or reserves erosion due to recent year's losses.
X_3	Operating Result/ Assets	Reflects the operating result and efficiency of using the assets to generate operating income. Lower values for several consecutive years may indicate a deterioration of the result from ordinary activities (basic) of the company.
X_4	Shareholders' equity/ Assets	Reflects the structure of financing and self-financing ability of the company. Lower values indicate high dependence on external funding and reduced perspectives of additional funding.
X_5	Turnover/ Assets	How effectively the company uses its assets to generate income. The value is recommended to be close to the industry average. Low levels may indicate that too much capital is locked in assets. High values may indicate that the company has too few assets for the potential sales level.

Interpretation of results:

$Z < 1.20$ => high probability of insolvency;

$1.20 < Z < 2.9$ => medium probability of insolvency;

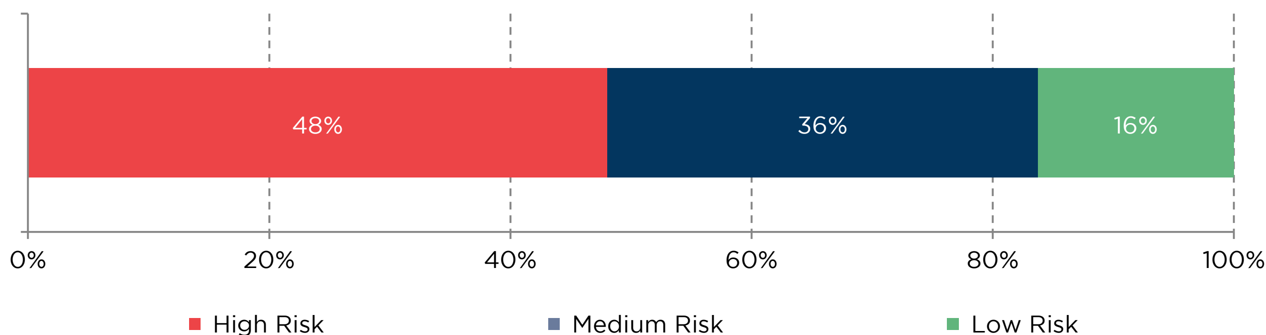
$Z > 2.90$ => low probability of insolvency.

Of the 1,829 companies operating in the analyzed sectors which have submitted the financial statements for 2013, a total of 1,347 have submitted the financial data in the format required, in order to calculate the indicators from the model previously described. The sample is relevant, given that it generates about 92% of the turnover of the entire companies' portfolio

Analyzing the consolidated results, it can be observed that:

- 48% companies pose a high risk of insolvency;
- 36% companies pose a medium risk of insolvency;
- 16% companies pose a low risk of insolvency.

Graph 16. Altman Z-Score - Sector Risk distribution



Source: Ministry of Finance, Coface analysis

3. COMPANIES IN THE SECTOR UNDER COFACE GLANCE

As a provider of integrated services for the credit risk management, Coface Romania plays an important role to gather financial information on business partners very necessary for commercial transactions risk management. This statement is even true, in turbulent business conditions since the local triggering of the financial crisis, marked by a sense of uncertainty and multiple risk, complex and with a high degree of correlation. Over 70,000 companies became insolvent in the last 3 years and solvency of many companies was strongly affected: industries that have reported significant increases before 2008 subsequently reported severe negative adjustments. If before the crisis, the companies' main objective was a quantitative one, marked by an increase of the market share and overcome the competitors, the current context is defined by a very different reality. In this new context, knowledge of the financial situation evolution of main business partners is no longer an option, it becomes absolutely necessary.

In this section is presented the risk distribution for companies operating in road freight transport which were individually analyzed by Coface during 2014.

For the entire portfolio, Coface Romania CMS has individually analyzed during 2014, at the request of the business partners or as direct consequence of monitoring the exposures in the insurance division, a total of 36,000 unique companies with a turnover of approximately 202 BEUR, representing approximately 80% of the turnover of all active firms in Romania.

Of these, 335 companies are operating in the analyzed sector. Even if from the numerical point of view, the sample analyzed seems very small (generating a numerical weight of less than 20%), these companies are representative, because they generate approximately 88% of total turnover recorded in the entire sector.

3.1. Distribution @rating score and payment behavior

Summary description of @rating Coface methodology

Calculation of the probability that the subject company enter in defaults for the next 12 months involving the use of 218 soft variables (ex. payment behavior and company description) and 299 financial variables. The results obtained by the two categories of variables are then consolidated to create a single risk indicator. Examples of variables used:

- Qualitative (Soft): the registration date of the company, form of organization, location, development, activity (belonging to the sector for the assessment of systemic risk), information about shareholders and relationships with other companies, information on payment behavior, the existence of collection cases (access and interconnection/ database of the collection department within the company, which gives us information about the payment behavior of investigated companies), etc.;
- Financial (Financial): is calculated based on the financial data available (both the dynamics of balance, absolute values, and calculated coefficient), ex. dynamic turnover, fixed assets, equity and its components, liquidity, solvency, profitability or activity.

The final score (@ rating company) is obtained as a linear combination of the two results, the financial one with a weight of 0.7, and the quality one, value of 0.3. Coface @ rating score also benefit from the information obtained by the Commercial Insurance Division of Coface, which provides to our analysts additional information (often confidential data which may not appear in the report) of the surveyed companies.

Risk categories according to @rating:

Insolvency cases/ current debt collection	Very high risk			Risk over medium level		Very low risk				
0	1	2	3	4	5	6	7	8	9	10

Scoring @rating: 1-3 (NIGA[12])

For the companies in this risk category (NIGA) is not recommended an investment, credit insurance or credit granting. For this reason, the maximum recommended exposure for these companies will always be zero.
Generally, the companies in this risk class (NIGA) have a decreasing trend (abrupt) for several years in a row, risky payment behavior (payment incidents very recent restraint by the banks, have outstanding debts recorded in our base data), negative equity or very small (<5% of total assets), very low liquidity, very low or no negative information on commercial insurance line (confidential information which can not be provided in credit reports).

Scoring @rating 4-5 (NIG13)

For companies in this risk category the investment is not recommended, but may be subject to a commercial insurance or a commercial loan (with caution). @ Rating companies scoring 4 and 5 have both negative and positive aspects: downtrend, but good financial structure; budget debts, old incidents, recent collection cases closed positive (company paid the debit), negative equity, with smooth evolution on the Profit and Loss Account.

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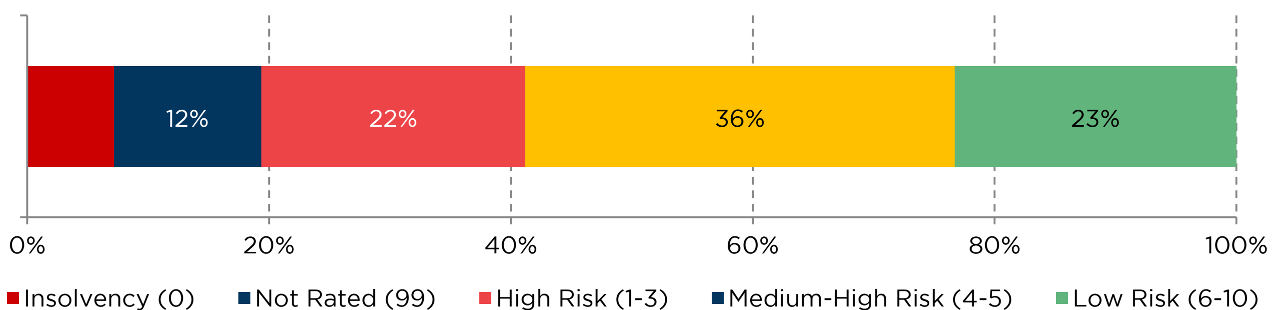
[12] Non-Investment Grade Aggravated
[13] Non-Investment Grade

Scoring @rating 6-10 (IG[14])

For companies in this class, the risk is considered low. There is always a recommended commercial exposure for scoring in this risk category.

Analyzing the distribution of the companies as regards the risk category, we note the following:

- Only 23% of the analyzed companies pose a low risk of insolvency;
- 19% of the companies were already in insolvency at the analysis time or there was a pending application for insolvency, which is why the company's assessment was suspended;
- The rest of 58% of the analyzed companies pose a risk of insolvency higher than the average and 1/4 of them registered a high risk.



Source: Data processed by Coface

Payments regime - is another important indicator resulted from the Coface's analysis of the credit report done individually for each company. This indicator directly influences the maximum exposure[15] recommended by Coface and indirectly the risk class to which belongs the company.

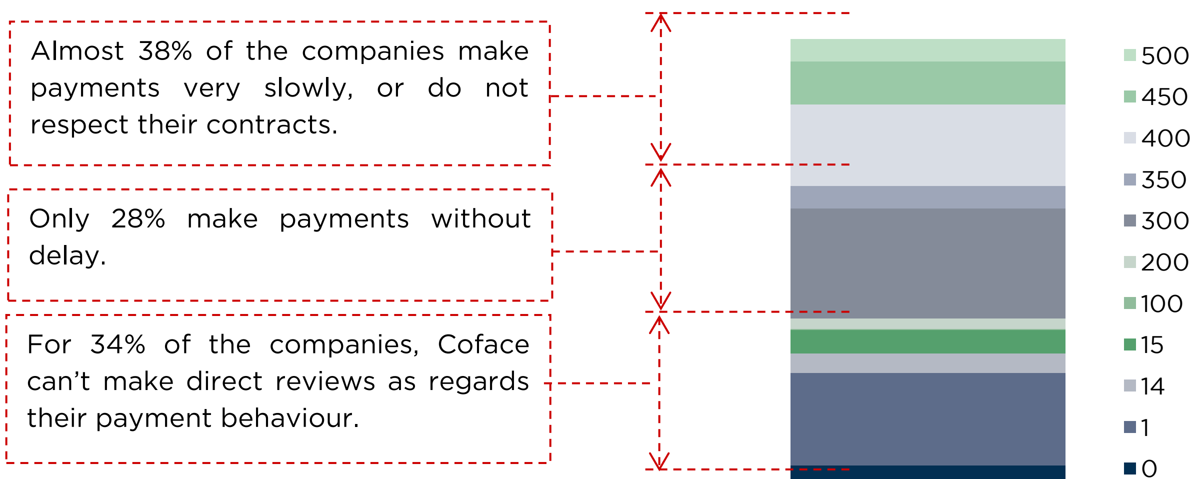
For this review are taken into account several elements:

- payment incidents (query CIP);
- debts to the state budget;
- financial indicators (debt level, liquidity: immediate and current, solvency, paydays working capital);
- collection cases;
- insolvencies petitions.

[14] Investment Grade
[15] The upper limit of the credit acceptable by a supplier of goods or services with payment terms of 60 days (It is considered that the subject firm has an average number of 5 suppliers which delivers goods or services at the same time)

Payment Code	Payment discipline code's explanation
0	No relevant information regarding the payments.
1	No information about payment incidents at this time
12	Based on the current situation of the company, Coface Central Europe cannot provide a final assessment of the payment behavior at the moment.
14	Based on the current information, Coface Central Europe cannot provide a final assessment of the payment behavior at the moment.
15	Based on the insolvency information/ debt collection recorded, it isn't possible to assess the payments regime at this time.
100	Payments are made very correctly.
200	Payments are made regularly.
300	Payments are made according to terms.
400	Payments aren't made regularly.
450	Payments are made slow.
500	Payments are made extremely slow.
550	Payments are made extremely slow, constantly being necessary legal actions.
600	Payments stopped.

Graph 18. Distribution of analyzed companies by payment behavior



To summarize, 2013 highlighted a massive decrease of revenues, amid superior profitability, as compared to 2012. Because of this, the long term investments have ceased, the level of capex being negative.

Multiple mixes of financial indicators should have led to better liquidity for the companies activating in the appraised sector: extending the payment terms to suppliers up to 269 days, decreasing the average period of receivables collection down to 225 days, investments sacrifice and net result improvement. Despite this, the tangible liquidity is lowering, with short term debt coverage ratio by net treasury decreasing down to 13%. This can only mean one thing: the surplus capital has been directed to paying dividends of group financing.

Based on stress test scenario analysis, Coface has identified the fragile liquidity position of companies activating in the construction of roads and motorways sector, highly prone to negative shocks from default receivables or decreasing revenue. Under this framework, financial analysis models employed during the study confirm the high insolvency risk of companies activating within the appraised sector, only 16% from the active companies being rated with low insolvency risk. Moreover, Coface has analyzed during 2013 a total number of 335 individual companies activating in the construction of roads and motorways sector, that generate a 88% value weight from the total sector revenue, one of the principal conclusions drawn being that less than one third of the sample companies settle payments to suppliers according to the contractual terms.

For more details:
T. +40/21/231 60 20
comunicare-romania@coface.com
www.coface.ro