

Financial Analysis Based on Efficiency Indicators at Microeconomic Level

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Abstract

Through this article, the authors want to highlight by analyzing the financial equilibrium that Romanian economic entities can be successful in a niche market such as the construction sector, with specialization in construction works for residential and non-residential buildings and road infrastructure. To this end, the authors conducted a case study on the example of PRO STRATEGY CONSTRUCTION SRL in Târgoviște, which has full Romanian capital. Highlighting the role of financial analysis, the authors try to appreciate the conditions under which the financial equilibrium is achieved, based on the analysis of the balance sheet structure ratios, the financial balance indicators, the liquidity and the solvency of the entity, a deduction of the entity's degree of autonomy and the adoption of some corrective decisions in the short, medium and long term management. The article concludes with the authors' conclusions and views on the efficiency indicators of the analysed entity, the period 2016 - 2018.

Key words: financial analysis, financial balance, financial equilibrium indicators, ratios method
J.E.L. classification: M21

1. Introduction

At the end of the nineteenth century, as a result of the bankers requesting information to assess and appreciate the guarantees of the companies wishing to apply for a loan, the financial analysis emerged. The information concerned a brief analysis of solvency and the verification of certain financial balances, but with the diversification of economic entities and the growth of the role of financial institutions, the complexity of the financial analysis has increased and diversified.

Financial analysis is the process of evaluating business, projects, budgets, etc. to determine their performance. Typically, the financial analysis is used to assess whether an entity is stable, solvent, liquid or sufficiently profitable to justify a monetary investment. When interested in a particular economic entity, a financial analyst performs an analysis focusing on the income statement, the balance sheet and the cash flow statement.

Thus, financial analysis is the first stage of the fundamental financial management cycle that consists of a set of tools and methods that allow the assessment of the financial status and performance of an economic entity.

In the modern economy, the nature and importance of economic entities are the object of study of many specialized studies. Nowadays, the emphasis is no longer on the sociological significance of economic entities, but on their systemic and socio-economic interpretation of operational techniques. The evolution of the financial analysis aims at adapting the objectives according to the requirements of the different users, depending on the aspects of their field of interest. Managers, current and/or potential shareholders, creditors, employees of the economic entity, tax authorities and financial analysts have an important role to play in the analysis of financial statements. Those users may make decisions about: how to manage the entity, buy or sell securities, grant or deny credit, etc. both inside and outside the entity, the financial analysis leads to an internal or external

financial diagnosis with specific objectives for the users of the economic entity - internal and/or external. Each economic entity faces a series of fundamental problems aimed at establishing and consolidating the place they occupy in the economic space in which they operate, the target to which they are heading, the costs involved and the chances of achieving the objectives set. In this context, economic entities have a permanent concern to relate to market demand, in anticipation of competition movements, self-evaluation of the resources available to each and action towards increasing the efficiency of their use. In addressing the issues of the economic entity an essential role is the financial analysis, as a set of tools and methods that allow the appreciation of the financial situation and the performance of the economic entity. In the financial analysis, the ratios of income and expenditure related to the entity's activity, financing sources and the use of short, medium and long-term financial resources are pursued. The financial balance is analysed in the medium and long term by comparing fixed capital with fixed assets in the short term by comparing current resources with current assets and globally by comparing the working capital with the working capital requirement. The indicators used in the analysis of the financial balance are represented by the working capital, the working capital requirements, the treasury and the net situation, the structural ratios and the rotation ratios. These indicators can be determined on the basis of the financial balance in the patrimonial sense and on the basis of the functional balance in the functional sense.

2. Theoretical background

The basic elements of the conceptual and methodological framework of financial analysis over time have had an impressive evolution, starting with the industrial revolution up to now. Internationally, leading authors like (Charpentier P., Deroy X., Uzan O., Marciniak R., Luong S., Du Sablon G.B., 2002, p.468) have contributed to the gradual enrichment of the financial analysis patrimony.

On the national level, financial analysts such as (Brezeanu P.,2002, p.32; Buglea Alexandru, 2004, p.3, Bușe L., Siminică M., Marcu N.2008, p.22; Niculescu Maria, 2003, p.14; Petrescu S., Mironiuc M. 2002, pp.149-155) occupy a special place and argue that the financial analysis regarded as an instrument of management is in an organic relationship with the functions of the economic entity and with the functions of the management exercised over all the functions of the economic entities.

A special contribution to the understanding of the concept of financial analysis was made by the authors of specialized papers on a national level (Bătrâncea Maria și Larissa-Margareta, 2005, p.15; Păvăloaia Willi, Păvăloaia D., 2009, p.33; Petrescu S., 2004, pp.17-23).

3. Methodology

The starting point of the research is represented by the study of the specialized literature both nationally and internationally. The theoretical research describes and analyses the current state of knowledge regarding the financial analysis based on the efficiency indicators at the microeconomic level, contributing to the formulation of the authors' point of view regarding the economic entities at the end of the study. The theoretical approach is supported by an empirical study of a three-year period (2016-2018).

4. The analysis of the financial position of ProStrategy Construction SRL Targoviste

In order to build up the financial balance of the company over the three years of analysis, it starts from the balance sheet form of the Annual Financial Statements, namely the Balance Sheet and the simplified profit and loss account.

Table no.1. The balance sheet

	2016	2017	2018
ACTIV			
Intangible assets	3222	3461	4695
Tangible assets	291675	291821	481703
Financial assets	0	0	0
Total of fixed assets	294897	295282	486398
Stocks	25492	26033	41565
Claims - customers	26683	32743	41404
House and accounts with banks	47186	81950	43310
Short-term financial investments	0	0	0
Total of current assets	99361	140725	126279
TOTAL ACTIV	394258	436007	612677
PASIV			
Equity	374043	415627	566266
Medium and long term loans	0	0	0
Suppliers with a duration of more than 1 year	0	0	0
Other loans and financial liabilities	1112	928	0
Debts longer than 1 year - total	1112	928	0
Provisions for risks and expenses over 1 year	0	0	0
Fixed capital	375155	416556	566266
Short-term loans	0	0	0
Suppliers with a duration of less than 1 year	9973	11091	22211
Other operating liabilities	9130	8360	24200
Debts less than one year - Total	19103	19451	46411
Provisions for risks and expenses less than 1 year	0	0	0
TOTAL PASIV	394258	436007	612677

Source: authors' processing

Table no.2. The simplified profit and loss account

	u.m.	2016	2017	2018
Net turnover	lei	117342	264894	291333
Expenditure on raw materials and materials	lei	(6875)	(9583)	(4950)
Expenditure on services rendered	lei	(64342)	(87593)	(135441)
Other operating expenses that do not include costs including depreciation expense	lei	(23320)	(105567)	(151030)
Other operating expenses that do not include costs including depreciation expense	lei	4950	16500	9900
Operating result	lei	27755	78651	9812
Interest charges	lei	0	0	0
Interest income	lei	18688	8845	6042
Financial result	lei	18688	8845	6042
The gross result of the exercise	lei	46443	87496	15854
Tax	lei	(3791)	(8775)	3177
Net result of the exercise	lei	42652	78721	12677

Source: authors' processing

The Company does not hold stocks with no movement or slow movement, nor claims with a maturity of more than one year. The company also does not record financial assets.

4.1. Analysis of balance sheet structure ratios

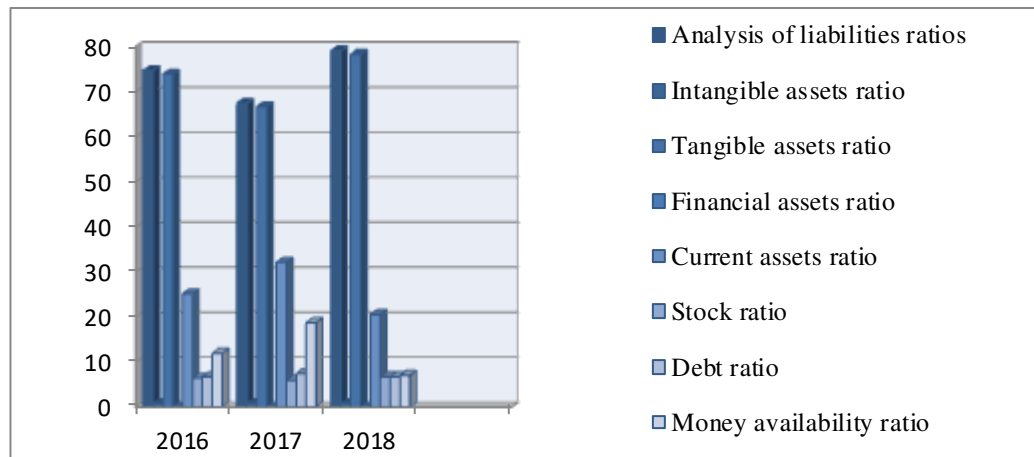
The method of calculation of the asset structure ratios of the analysed entity is presented in table no.3.

Table no.3. Structure ratios of the balance sheet asset

Specification	Symbol	Analysis period		
		2016	2017	2018
Fixed asset ratio	$RA_i = A_i/AT*100$	74,80	67,72	79,39
Intangible assets ratio	$R_{in} = I_n/AT*100$	0,82	0,79	0,77
Tangible assets ratio	$R_{ic} = I_c/AT*100$	73,98	66,93	78,62
Financial assets ratio	$R_{if} = I_f/AT*100$	0	0	0
Current asset ratio	$RA_c = A_c/AT*100$	25,20	32,28	20,61
Stock ratio	$R_{st} = S_t/AT*100$	6,47	5,97	6,78
Debt ratio	$R_{cr} = C_r/AT*100$	6,77	7,51	6,76
Money availability ratio	$R_{db} = D_b/AT*100$	11,96	18,80	7,07

Source: authors' processing

Figure no.1. Asset structure ratios



Source: authors' projection

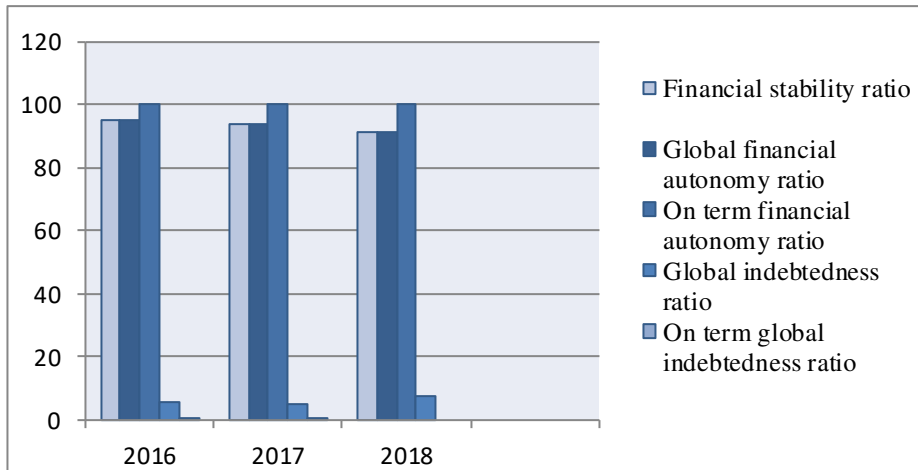
The way of calculating the liability ratios is presented in table no. 4:

Tabel no. 4. Liability ratios

Specifications	Formula	UM	2016	2017	2018	Security measure
Financial stability ratio	$R_{sf} = (C_{perm} / Pt) \times 100$	%	95,15	95,54	92,42	> 66%
	$R_{sf} = (D_{ts} / Pt) \times 100$	%	4,85	4,46	7,58	< 33%
Global-financial autonomy ratio	$R_{afg} = (C_{pr} / Pt) \times 100$	%	94,87	95,33	92,42	> 33%
On term	$R_{aft(1)} = (C_{pr} / C_{perm}) \times 100$	%	99,70	99,77	100	> 50%
	$R_{aft(2)} = (C_{pr} / D_{tml}) \times 100$	%	33633	4476	8	> 100%
Global indebtedness ratio	$R_{ig} = (D_t / Pt) \times 100$	%	5,13	4,67	7,58	< 66%
On term	$R_{it(1)} = (D_{tml} / C_{perm}) \times 100$	%	0,30	0,22	0	< 50%
	$R_{it(2)} = (D_{tml} / C_{pr}) \times 100$	%	0,29	0,22	0	<100%

Source: authors' processing

Figure no.2. Analysis of liabilities ratios



Source: Authors' projection

4.2. Financial Balance Analysis

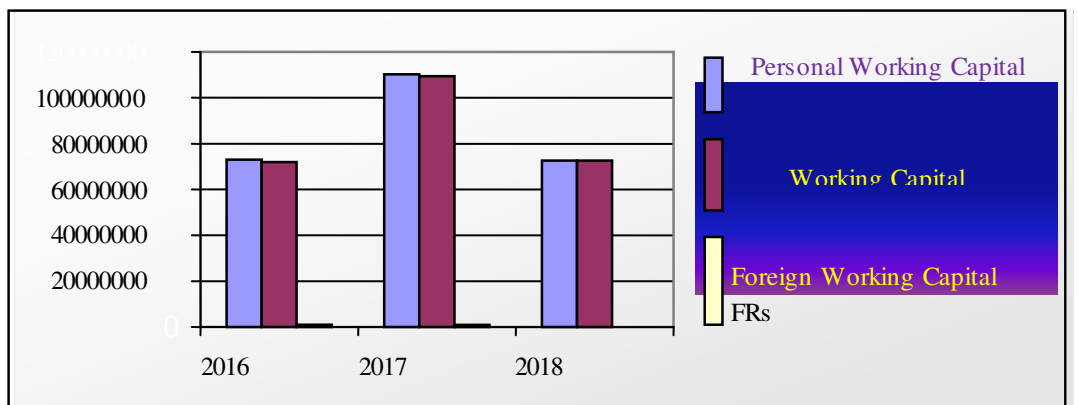
The analysis of the financial balance is based on the following indicators:
Working capital (WC); Necessary working capital (NWC) and Net Treasury (NT).

Table no.5. Net working capital

No.crt.	Specifications	2016	2017	2018
1	Personal capital (Cpr = PrC)	374043	415627	566266
2	Liability > 1 year (Dtml)	1112	928	0
3	Permanent capital (Cperm = 1+2)	375155	416556	566266
4	Net fixed assets (AIN)	294897	295282	486398
5	FR = Cperm - AIN	80258	121274	79868
6	Current assets (Ac)	99361	140725	126279
7	Total short-term debt (Dts)	19103	19451	46411
8	FR = AC - Dts Total	80258	121274	79868
9	Personal FR = Cpr - AIN (=1-4)	79146	120345	79868
10	Foreign FR = FR - Personal FR (= 8-9)	1112	928	0
11	Turnover (CA)	117342	264894	291333
12	FR optim = 1/3 x CA	39114	88298	126544

Source: authors' processing

Figure no. 3. The working capital



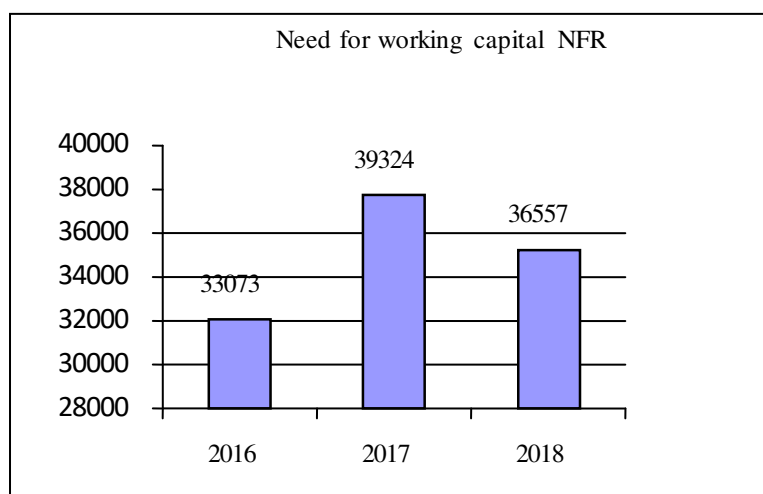
Source: authors' projection

Table no.6. The need for working capital

Nr. crt.	Specifications	2016	2017	2018
1	Current assets need for working capital	99361	140725	126279
2	Short-term financial availability	47186	81950	43310
3	Cyclical Active (1 - 2)	52175	58775	82969
4	Total short-term debt	19103	19451	46411
5	Short-term loans	0	0	0
6	Cyclical liabilities (4-5)	19103	19451	46411
7	Need for working capital NFR (3-6)	33073	39324	36557
8	Turnover (CA)	117342	264894	291333
	NFR optim = 15% * CA	17601	39734	43700

Source: authors' processing

Figure 4. Need for working capital



Source: author's projection

Table no.7. Net Treasury

No.crt.	Specifications	2016	2017	2018
1	FR	80258	121274	79868
2	NFR	33073	39324	36557
3	TN = FR - NFR (= 1-2)	47186	81950	43310
4	Short-term financial availability (Dfts)	47186	81950	43310
5	Short-term credits (Cts)	0	0	0
6	TN = Dts - Cts (= 4-5)	47186	81950	43310

Source: authors' processing

4.3. Analysis of the company's liquidity and solvability

The way of calculating the liquidity ratios is presented in table no. 8.

Table no.8. Liquidity ratios

Nr. crt.	Indicators	Formula	Analysis period		
			2016	2017	2018
1	Stocks	St	225492	26033	41565
2	Claims	Cr	26683	32743	41404
3	Cash availability	Db	47186	81950	43310
4	Current assets	Ac=St+Cr+Db	99361	140725	126279
5	Short-term debts	Dts	19103	19451	46411
6	Current liquidity ratio	Ac/Dts	5,20	7,23	2,72
7	Fast liquidity ratio	(Cr+Db)/Dts	3,87	5,90	1,83
8	Immediate liquidity ratio	Db/Dts	2,47	4,21	0,933

Source: authors' processing

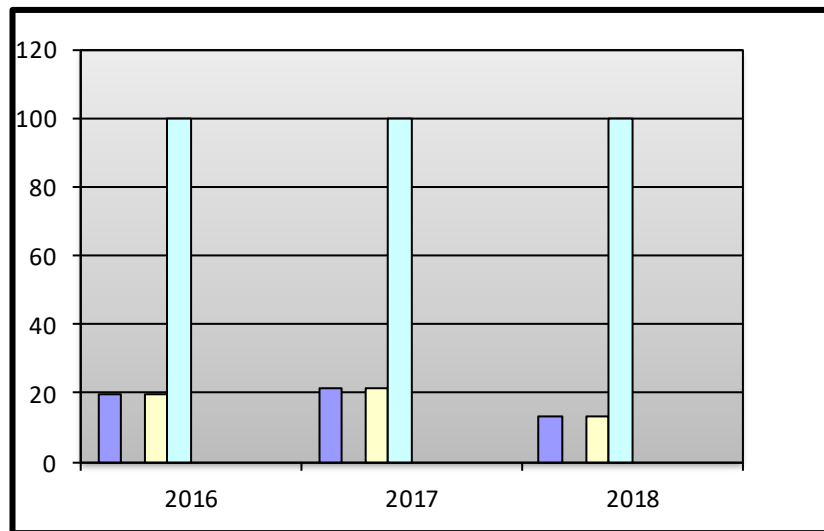
The calculation of the solvency ratios is presented in table no.9.

Table no.9. Solvency ratios

Nr. crt.	Specification	Anaysis period		
		2016	2017	2018
1	Overall solvency ratio $R_{sg} = \frac{AT}{\hat{ITML} + DTS + Db} > 3$	19,50	21,39	13,20
2	Financial solvency ratio $R_{sf} = \frac{AT}{Dat_fin} > 2$	19,50	21,39	13,20
3	Patrimonial solvency $Sp = \frac{CS}{Itml + CS} \times 100 \longrightarrow \in [40\% - 60\%]$	100	100	100

Source: authors' processing

Figure no.5. Solvency ratios



Source: authors' projection

5. Findings

The following key issues are detached from the analysis of the asset and liability structure ratios:

- ✚ the fixed assets ratio fluctuates from one period to the next. Thus, in 2017 there is a decrease of approximately 7% compared to the base period, 2016, and in 2018 the fixed assets ratio is about 5%, as compared to 2016, an increase of approximately 12% compared to the year 2017. These fluctuations are due to the following changes that occurred during the analysis period: the degree of capital investment declined from one year to the next; the evolution of the fixed asset was exceeded by the evolution of the total asset; total asset growth;
- ✚ the current assets ratio fluctuates from one period to the next. We note that current assets declined from one period to the next, decreasing as a share in the total asset. On the whole, the increase in inventories and receivables was annihilated by the drastic reduction in cash availability, causing a reduction in the level of circulating assets and, implicitly, the reduction of the current assets ratio,
- ✚ the balance sheet structure ratios show how funding sources are structured according to their origin and their degree of exigibility. The rate of financial stability shows a decrease in 2018 compared to the other two years of analysis. However, its value ranges from 90%

- to 100%, with financial stability being high.
- ✚ the global financial autonomy ratio is higher than 90%, well above the recommended value of 67% to obtain a possible bank loan, the situation of the entity being beneficial.
 - ✚ the global indebtedness ratio is low, below 10%, the company's dependence on its creditors is low. The maximum level of indebtedness, at a bearable risk, is 66%. The amount of medium and long-term debt is very small, and therefore the rate of term debt by both methods of calculation is very small, below 1%, the company can easily honor its debt;
 - ✚ permanent capital funds part of the current assets after full financing of the net assets, and current assets convertible into cash can allow both full repayment of short-term debt and the release of excess liquidity. The increase in the working capital in 2017 compared to 2016 is considered to be a positive situation as a growing portion of current assets is funded from permanent capital. The share of the working capital in the working capital shows a permanent trend of growth, in 2018 equaling the value of the working capital, thus increasing the amount of the equity participation in the financing of the current assets;
 - ✚ the working capital requirement has positive values and signifies a surplus of temporary needs in relation to temporary resources. The situation can only be considered favorable if it is the consequence of an active investment policy that raises the need to finance the operating cycle; otherwise, positive NFR points to an unfavorable gap between the liquidity of the cyclical assets and the exigibility of operating debts; this situation may be due to: the existence of supernormal, degraded or non-moving material stocks; the existence of stocks of finished products without movement; increasing the value of production in progress; the gap between the collection of debts and payment of debts;
 - ✚ the net treasury values are positive throughout the analysis, with the surplus of financing being in the form of cash deposits in bank accounts and in the home. The economic entity finds itself in a favorable situation characterized by a treasury enrichment and short-term financial autonomy, thus ensuring the availability of placements and the availability of money;
 - ✚ although liquidity ratios are declining, they fail to get closer to the optimal value than in 2018, when they record acceptable values over the previous and the maximum accepted ones. In 2017 there is a high level of the current liquidity ratio of 7.23, which far exceeds the value of 2.00 considered the maximum accepted level, this situation is not considered a very good one but is associated with inadequate management of the current assets. The situation is improving in 2018, the current liquidity ratio becoming 2.72;
 - ✚ in terms of the fast liquidity ratio, in particular, it is higher than the recommended maximum of 1 and may also reflect an inappropriate structure of the circulating asset in terms of a too high proportion of receivables (receivable issues) and availability (passive management in fructification). In this case, the problem of short-term (especially commercial) debt management may be inappropriate. The increased level of immediate liquidity in the early years of analysis may be a sign of passive asset management or, on the contrary, a sign of proper management of cash surpluses capitalized on financial placements;
 - ✚ over the entire analyzed period, the level of the general solvency indicator is above the normal limit (3.00), although compared to previous years it decreased by about 7% in the last year. From this point of view, the firm is safe throughout the analysis period, which means that the company's total assets can cover the company's total debts. The company does not benefit from medium and long-term loans, so we can not talk about patrimonial solvency.

6. Conclusions

The economic destination of the invested capital is given by the asset structure ratios, the degree of liquidity of the invested capital, and the ability of the economic entity to modify its asset structure under the conjunctural factors.

The analyzed economic entity has a high degree of financial stability which gives the possibility of achieving long-term strategies both in the decision-making process and in the exploitation process, as the large share of the stable sources of funding available allows this.

The term financial autonomy ratio is high, indicating that the economic entity has a sound financial structure that is associated with a low degree of risk.

During the period under review, a working capital result is positive, which gives a favorable outlook for the entity in terms of solvency, with a margin of security that may partially or fully protect it from the effects of disruptions in the revenue and payments cycle.

Also, with regard to empirical research, the idea is that the net situation is positive and growing from one year to the next, resulting in an increase in equity, the entity presenting sound financial management.

In terms of financial solvency, the situation is advantageous because the value of the indicator far exceeds the recommended minimum amount, and therefore the total financial debts can be fully operational from the total assets.

Therefore, it can be said that the Romanian economic entities in the field of construction, specializing in construction works for residential and non-residential buildings can be successful not only at microeconomic level but also at macroeconomic level.

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