IMPACT OF KEY MACROECONOMIC FACTORS ON THE PROFITABILITY OF BIG ORGANIZATIONS

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Abstract. *This research investigates the relationship between macroeconomic factors and profitability of companies, considering the company level factors of financial performance: gross margin, operating margin, EBITDA margin and ROA. Drawing upon the theoretical frameworks, empirical analyses and econometrical model, the study explores multifaceted dynamics of macroeconomic-firm nexus of the biggest 16 companies - drivers of modern US economy. Findings reveal significant relationships between macroeconomic factors such as exchange rate, inflation and corporate profit, highlighting company response to macro-level changes. Practical implications for financial managers are discussed, emphasizing the importance of considering macroeconomic conditions in decision making processes. Overall, this article contributes to the understanding of macroeconomic-firm nexus and provides insights, which should be further developed.*

Keywords: *macroeconomic factors, company financial performance, profit, gross margin, operating margin, EBITDA margin, ROA, GDP, interest rate, exchange rate, inflation.*

YIRIK KORXONALARNING RENTABELLIK KO'RSATKICHIGA MAKROIQTISODIY OMILLARNING TA'SIRI

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Annotatsiya. *Ushbu tadqiqot makroiqtisodiy omillar va kompaniyalar rentabelligi o'rtasidagi o'zaro bog'liqlikni o'rganadi hamda korxonalarning moliyaviy ko'rsatkichlari yalpi foyda marjasi (gross margin), operatsion marja (operating margin), EBITDA marjasi va aktivlarning rentabelligi (ROA)ga ta'sirini tadqiq qiladi. Nazariy yondashuvlar, empirik tahlillar va iqtisodiy-ekonometrik modelga tayangan holda, tadqiqot zamonaviy AQSH iqtisodiyotining asosiy drayverlari bo'lgan 16 ta yirik kompaniya misolida makroiqtisodiy omillar va firmaning o'zaro ko'p qirrali aloqa dinamikasini ochib beradi. Natijalar valyuta kursi, inflyatsiya kabi makroiqtisodiy omillar va korporativ foyda o'rtasida sezilarli bog'liqlik mavjudligini ko'rsatadi hamda kompaniyalarning makro darajadagi o'zgarishlarga qanday javob berishini yoritadi. Shuningdek, moliyaviy menejerlar uchun amaliy ahamiyatlari muhokama qilinib, qaror qabul qilish jarayonlarida makroiqtisodiy sharoitlarni hisobga olish muhimligi ta'kidlanadi. Umuman olganda, maqola makroiqtisodiy omillar va firma ko'rsatkichlari o'rtasidagi o'zaro bog'liqlikni tushunishga hissa qo'shadi hamda kelgusida yanada chuqur tadqiq etilishi lozim bo'lgan jihatlar bo'yicha tavsiyalar beradi.*

Kalit so'zlar: *makroiqtisodiy omillar, kompaniya moliyaviy faoliyati, foyda, yalpi foyda marjasi, operatsion marja, EBITDA marjasi, ROA, YaIM, foiz stavkasi, almashuv kursi, inflyatsiya.*

ВЛИЯНИЕ КЛЮЧЕВЫХ МАКРОЭКОНОМИЧЕСКИХ ФАКТОРОВ НА ПРИБЫЛЬНОСТЬ КРУПНЫХ ОРГАНИЗАЦИЙ

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Аннотация. В настоящем исследовании анализируется взаимосвязь между макроэкономическими факторами и прибыльностью компаний с учётом корпоративных показателей финансовой деятельности валовой маржи, операционной маржи, маржи EBITDA и рентабельности активов (ROA). Опираясь на теоретические концепции, результаты эмпирического анализа и эконометрическую модель, работа рассматривает многогранную динамику взаимодействия макроэкономических условий и деятельности фирм на примере 16 крупнейших компаний ключевых драйверов современной экономики США. Полученные результаты выявляют статистически значимые зависимости между макроэкономическими показателями, такими как обменный курс и инфляция, и корпоративной прибылью, что отражает характер реакции компаний на изменения макроуровня. Обсуждаются практические выводы для финансовых менеджеров, подчёркивая важность учёта макроэкономической среды при принятии управленческих решений. В целом, статья способствует углублённому пониманию взаимосвязи между макроэкономическими факторами и деятельностью фирм и формирует основу для дальнейших исследований в данной области.

Ключевые слова: макроэкономические факторы, финансовые показатели компании, прибыль, валовая маржа, операционная маржа, маржа EBITDA, ROA, ВВП, процентная ставка, обменный курс, инфляция.

Introduction.

In today's dynamic economy, large organizations operate within a complex web of economic forces that directly influence their profitability. Macroeconomic factors—broad indicators and conditions affecting the economy at large—play a pivotal role in shaping business outcomes. Understanding these factors is crucial for managers, investors, and stakeholders who aim to navigate uncertainties and optimize company's financial performance. Big corporations and companies operate both inside company and globally, meaning that they are more prone to global economic changes as well as economic conditions within their country. For this reason, key factors like inflation, interest rate and GDP, alongside exchange rate are chosen in this research to assess their impact on company's profitability.

Literature review.

There are many articles and empirical works studying the impact of key macroeconomic factors on financial performance of the company and some notable ones are works of Polish scientists revealing the relationship between debt indicators and macroeconomic situation (Nowicki, Ratajczak, Szutowski, 2024). In another research (Fernanda, Marley, Suhendra, 2024), macroeconomic indicators have profound impact on profitability and debt leverage of companies, meanwhile the research by Li (2024) has found significant impact of GDP on profitability of big companies and the effect of inflation was insignificant. Numerous studies have employed advanced regression models or pooled OLS approaches, while others have incorporated big data tools and analytics into their methodologies. However, the effect of key macroeconomic factors on profitability requires further research, and this article aims to clarify their impact on company profits and draw a conclusion that will enhance understanding of this topic.

Methodology.

This research identified four key macroeconomic indicators—GDP, inflation, exchange rate, and interest rate—and examined their effects on firm-specific variables such as profit, gross margin, operating margin, EBITDA margin, and return on assets (ROA). The timeframe of data is quarterly from 2009 to 2024, meaning that number of observed periods is 192 quarters. The model is built up by big data analytics, measuring the data of 16 of the biggest market capitalization companies across USA, observed over the period from 2009 to 2024.

A dynamic model is estimated:

$$PG_t = \alpha PG_{t-1} + \beta_1 GM_{t-1} + \beta_2 OM_{t-1} + \beta_3 EM_{t-1} + \beta_4 RA_{t-1} + \gamma_1 DG_{t-1}$$
$$+\gamma_2 RR_{t-1} + \gamma_3 IR_{t-1} + \gamma_4 IN_{t-1} + \varepsilon_t$$

This is a GMM model (Arellano–Bond/Blundell–Bond type), where dependent variable is profit growth, independent variables are categorized into firm level indicators like PG (profit growth), GM (gross margin), OM (operating margin), EM (EBITDA margin), RA (Return on Assets) and macroeconomic indicators like DG (US GDP growth), RR (US Real Effective Exchange Rate), IR (US interest rate) and IN (US inflation rate). All regressors are lagged for one period meaning the effect of previous period variable on current period profit growth.

Analysis and discussion of results.

Profit growth. The coefficient on the lagged dependent variable (PG_{t-1}) is negative and statistically insignificant. It means profit growth does not have any trend and high or low profit growth in one quarter does not systematically lead to similar outcomes in the next.

Table 1

Generalized Method of Moments Estimation Output

Fitting		full			model:
Step 1	f(b)		=		4082.5648
Group variable: id		Number	of	obs =	1008
Time variable: date		Number	of	groups =	16
Moment conditions: linear = 27		nonlinear = 0	total	=	27
Obs per group: min = 63	avg = 63	max		=	63
(Std.	Err.	adjusted	for	16	clusters	in	id)

Variable	Coefficient	Std. Error	z	P>|z|	[95% Conf. Interval]
PG L1.	-.142	.153	-0.92	0.356	-.443, .159
GM L1.	-.033	.032	-1.06	0.291	-.096, .028
OM L1.	-.050	.043	-1.17	0.244	-.134, .034
EM L1.	-.025	.033	-0.75	0.456	-.090, .040
RA L1.	.142	.058	2.44	0.015	.027, .256
DG L1.	.286	.987	0.29	0.771	-1.64, 2.22
RR L1.	.116	.046	2.51	0.012	.025, .207
IR L1.	-.277	.400	-0.69	0.488	-1.06, .507
IN L1.	-1.55	.887	-1.75	0.081	-3.29, .189

Company level indicators. Among these indicators, RA (Return on Assets) is statistically significant at the 5% level, with a coefficient of 0.142. This means higher ROA growth of last

period leads to higher profit growth in the current period or 1% increase in ROA will increase profit growth by 0.142%. Efficient asset utilization and strong internal capital allocation can predict future profitability, and this aligns with economic theory that firms using assets more effectively generate sustainable profit expansion (Barney, 1991). Meanwhile, all three margin indicators exhibit statistically insignificant coefficients which means that past quarter margin indicators do not predict future profit growth. This also suggests that stable financial ratios like gross margin or operating margins do not picture the whole profitability and these companies are more likely to be driven by dynamic operational factors and market trends.

Macroeconomic indicators. REER is positive and significant at the 5% level. A stronger dollar (higher REER) leads to higher profit growth for the firms. When the USD strengthens, firms in our sample experience higher profit growth in the next quarter. By implementing the results, 1% increase in REER will increase profit growth by 0.116% in the next quarter. In a globalized environment, currency effects often outweigh domestic macroeconomic conditions for multinational firms (Jorion, 1990), and all 16 sample companies are multinational companies revealing their strong relationship to exchange rate trends.

Inflation has a large negative coefficient and is marginally significant at the 10% level. While not statistically firm, 1% increase in the inflation rate will decrease the profit growth by 1.55% in the next quarter. It supports the theory that inflation erodes cost efficiency of companies and decreases real profit margins in the short term, having negative impact on corporate profitability. Another explanation would be the decline of purchasing power of consumers driven by inflation according to Fisher's theory (Fisher, 1911) which leads to low sales and profit for upcoming periods.

On the other hand, US GDP growth and interest rate growth are highly statistically insignificant. It means, sample companies are not strongly tied to US business cycles and output, as well as confirming the fact that their operations are diversified globally. In case of interest rate, statistical insignificance means that these companies have lower response to change in interest rate and have low debt sensitivity.

Conclusion.

The results collectively reveal that the profitability of large organizations is intricately linked to internal efficiency and global macroeconomic exposure. Asset efficiency is the strongest internal predictor of profit for large multinational companies and managers must focus on productive asset deployment and capital efficiency to drive sustainable profit expansion. By closely monitoring indicators such as inflation and exchange rates, investors and business leaders can anticipate challenges and seize opportunities. Proactive strategies, such as hedging against currency risks or optimizing asset management, empower organizations to maintain stability and profitability amid shifting economic conditions.

References:

Barney, J., (1991). Firm resources and sustained competitive advantage. Journal of management, 17(1), pp.99-120.

Fernanda, J., Marley, R., & Suhendra, F. (2024). Exploring the Impact of Macroeconomic Factors on Company Financial Performance: Insights into Economic Indicators and Sectoral Heterogeneity. Journal on Economics, Management and Business Technology, 2(2), 73-83.

Fisher, I. (1911). The Purchasing Power of Money.

Jorion, P., (1990). The exchange-rate exposure of US multinationals. Journal of business, pp.331-345.

Li G. (2024) The Impact of GDP Growth and Inflation on Corporate Revenue Growth: Evidence from listed companies in China // SHS Web of Conferences / ed. Gu J. Vol. 207. P. 03016.

Nowicki, J., Ratajczak, P., & Szutowski, D. (2024). Impact of Macroeconomic Factors on Financial Liquidity of Companies: A Moderation Analysis. Sustainability, 16(11), 4483.