

# Financial Depth – Economic Development Nexus

In Ukraine

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# Financial Depth: Concept and Estimation

We define financial depth as a quantitative characteristic of financial sector, which reflects its ability to accumulate resources and transform them into productive investments.

Standard Estimation Techniques:

- $M2/GDP$
- Domestic Credit to Private Sector/ $GDP$
- Market Capitalization/ $GDP$

# Financial Depth – Economic Development Nexus: Current Discussion Areas

1. Which indicators best represent financial depth?
2. What is the nature of financial depth-economic development nexus:
  1. Relation: Linear/Non-Linear
  2. Causation: Unidirectional/Bi-Directional/Non-Existent

# Financial Depth: Estimation

Formulas used in this study:

- Total Bank Loans / Real GDP
- Total Non-Bank Loans / Real GDP
- Market Capitalization / Real GDP

# Financial Depth – Economic Development Nexus

Model: OLS, 2008-2019; Adj R<sup>2</sup> > 0,9

Dependent Variable: Per Capita Real GDP (in UAH)

Independent Variables:

Variable	M1 (0,997)	M2 (0,997)	M3 (0,997)	M4 (0,944)	M5 (0,951)
<b>Financial Depth</b>					
Bank Loans to Real GDP	-2112,35	-1724.73	<b>-2154.98*</b>	-3644.80	-3714.20
Non-Bank Loans to Real GDP	-149178***	-162335***	<b>-142978***</b>	-133097**	-131893***
Market Capitalization to Real GDP	1,73e+06***	1.72e+06***	<b>1.64e+06***</b>	2.48e+06*	2.51e+06**
<b>Control Variables</b>					
External Debt to Real GDP	5,30E+03	11001.9***	-	-	-
Grain Export to Real GDP	8,39E+04	-	<b>156798***</b>	-	-
Metal Export to Real GDP	-6050,55	-	-	2194.61	-

# Financial Depth – Economic Development Nexus

Model: OLS, 2008-2019

Dependent Variable: GDP Per Capita (in current USD and in current UAH)

Independent Variable: Domestic Credit to GDP,  
%

	GDP PC (USD)	GDP PC (UAH)
Variable	M1 (0,05)	M2 (0,925)
Domestic Credit to GDP	716.472	-117688***

# Financial Depth – Economic Development Nexus

Model 3: OLS, using observations 2008-2019 (T = 12)

Dependent variable: rGDP\_per\_capita

	coefficient	std. error	t-ratio	p-value	
const	78124.2	3778.79	20.67	1.56e-07	***
BL_rGDP	-2154.98	1015.08	-2.123	0.0714	*
NBL_rGDP	-142978	5715.38	-25.02	4.16e-08	***
MC_rGDP	1.64113e+06	217238	7.555	0.0001	***
Ex_G_rGDP	156798	14277.2	10.98	1.15e-05	***
Mean dependent var	39242.77	S.D. dependent var	22658.94		
Sum squared resid	10867299	S.E. of regression	1245.982		
R-squared	0.998076	Adjusted R-squared	0.996976		
F(4, 7)	907.7201	P-value(F)	1.40e-09		
Log-likelihood	-99.32544	Akaike criterion	208.6509		
Schwarz criterion	211.0754	Hannan-Quinn	207.7532		
rho	-0.453633	Durbin-Watson	2.545785		