DETERMINANTS OF SUSTAINABLE BANKS' PROFITABILITY. EVIDENCE FROM EU COUNTRIES[1]

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Abstract

The paper aims at assessing whether responsible banking behavior is a precursor and catalyst of banking profitability. Consequently, the paper will investigate the exogenous determinants of the EU sustainable banks' profitability during the period 2006-2013. For the purpose of this study it has been considered the commercial banks resident in EU countries that voluntarily joined the United Nations Environment Program – Financial Initiative. The empirical study will be developed on several stages. First, explanatory variables comprising macroeconomic, institutional and public perception variables will be statistically processed. Secondly, it will be performed correlation analyses and Granger causality tests. Third, it will be employed a panel data regression with fixed effects, to account for those explanatory variables that boost or, on the contrary, compress sustainable banks' profitability.

Keywords: sustainable bank, profitability, macroeconomic fundamentals, sentiment indicator, panel data regression

JEL Classification: C23, G21

1. Introduction

In the post-crisis period evidences on banking activity showed that those that followed a responsible financial behavior were the greatest beneficiaries, in terms of market share increase, rise of deposits collected, increase of the number of customers. To sum up

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last years' trends, is seems that responsible banking behavior is a precursor and catalyst of banking profitability. It should be mentioned that the responsibility stream in banking overlaps on another crucial topic at European level, namely the achievement of sustainable regional economic development (Davidescu, Strat 2014).

The Global Alliance for Banking on Values (GABV), 2012 presented evidences on the different financial profiles of sustainable banks, as opposed to global systemically important financial institutions. The study covered the 2007-2010 time periods and comprised 17 sustainable banks and 29 banks classified as Global Systemically Important Financial Institutions by the Financial Stability Board. It concludes in its report that sustainable banking can be more profitable and less risky than mainstream large banks, by surpassing the latter on several financial metrics: greater exposure to customers in both deposits (deposits/total assets of 72.5% compared to only 42% for conventional banks) and loans (loans/total assets of 72.4% versus 40.7% for conventional banks), higher levels of growth recorded by loans (80.52% versus 21.38%) and deposits (87.74% versus 27.28%), a relatively higher and better quality capital (tier 1 capital represents 12.2% for sustainable banks and 10% for conventional ones), better returns on assets (0.44% versus 0.33%) and comparable returns on equity (7.26% versus 6.06%).

One year later GABV, 2013 updated their study and found that, although expanding the time horizon to cover the 2003-2012 years, new results remained consistent with the past research. On over-the-cycle average, sustainable banks lend almost twice as much of their assets on their balance sheet (75.9% compared to 40.1% for the conventional banks, from 2003 to 2012), their main source of funding is customers' deposits (73.1% versus 42.9%) and have stronger capital positions. In terms of financial returns, it seems that sustainable banks have historically stable returns on assets, of around 0.56%, with lower levels of volatility and better returns recorded post-crisis (0.53% compared to 0.37% for conventional banks).

Relying on the GABV's reports, Herman and Bowmer, 2012 launched into debate the issue of too-sustainable-to-fail banks, characterized by a values-based business model, which is more closely connected with the real economy. By means of the social and environmental criteria embedded into the regular decision making

process, they provide quantifiable human impact metrics and green, innovative products.

By voluntarily becoming signatories of the different international sustainability frameworks (UNEP FI, United Nations Global Compact, Equator Principles etc), sustainable banks state that their goal is to decisively and positively contribute to sustainable development, by linking the fulfillment of local community needs with environment protection and sound economic prospects. In achieving this major goal, they try to avoid excessive risk taking and focus on obtaining long-term profitability.

Starting from these realities and trends, the paper intends to bring together two concepts apparently conflicting, namely responsible financial conduct and profitability. Consequently, the paper will empirically investigate whether there is a causal relationship between a set of exogenous variables and the level recorded by banking profitability. Thus, we will be able to answer several questions: What are the specific external drivers of sustainable banks' profitability? Might these exogenous factors influence a conventional bank's decision to commit to a path of sustainable, socially and environmentally responsible financial behavior?

Our paper intends to fill the gap in the existing literature, by focusing on two insufficiently explored issues: a distinctive segment of the banking system, represented by sustainable banks, and European Union coverage. In contrast to existing literature that focuses mainly on individual countries, it will be employed a bank-level panel data analysis, the sample consisting of 28 sustainable banks resident in 13 EU member countries. To explain bank profitability it has been used a set of macroeconomic, institutional and public perception variables.

The structure of the paper is as follows: the first part illustrates the reinforcing relationship between profitability and socially responsible behavior of banks. The second part summarizes the previous empirical research on conventional banks' profitability and its exogenous determinants. The third part depicts the process for variables selection, the sources of data, the statistical tests performed, the methodology and results.

2. Literature review of bank profitability determinants

Most papers devoted to the study of banks' profitability determinants examine with predilection the banking system of a given country, such as Greece (Athanasoglou, Brissimis and Delis 2005; Alexiou and Sofoklis 2009), Switzerland (Dietrich and Wanzenried 2011), Spain (Trujillo-Ponce, 2012), Nigeria (Aburime, 2008), Turkey (Alper and Anbar 2011), China (Sufian and Habibullah 2009), India (Karimzadeh, Akhtar and Karimzadeh 2013), the U.S. banking sector (DeYoung and Rice, 2004; Hirtle and Stiroh, 2007; Tregenna, 2009) etc. while others conduct a cross-country analysis. A recent, small strand of economic literature emphasizes the determinants of Islamic banks' profitability (Sufian, Zulkhibri 2011; Masood, Ashraf, 2012; Muda, Shaharuddin and Embaya, 2013).

Although the time span, methodologies and countries considered wary widely across papers, there are some common empirical findings, in terms of bank-specific or macroeconomic variables that affect banking profitability.

Considering the external, macroeconomic factors, Athanasoglou, Brissimis and Delis, 2005 stated that inflation rate, interest rates and cyclical output affect positively the performance of the Greek banking sector. Other studies performed at country-level proved mixed evidence related to the potential correlation between GDP growth and banking profitability: Davydenko, 2010 and Rachdi, 2013 found a positive and highly significant relationship, Kosmidou, 2008 found a negative relationship while Ben Naceur 2003, Beckmann 2007 found no impact of economic growth on banking profitability.

Dietrich and Wanzenried, 2011 empirically investigated the effects of external factors on Swiss banks profitability and found that the GDP growth rate does not affect their profitability. In contrast, the term structure of interest rates has a positive influence while the effective tax rate has a negative but small effect on bank profitability in Switzerland. Positive relationship between inflation and bank profitability has also been documented by Alexiou and Sofoklis, 2009 and Trujillo-Ponce, 2012. The latter argues that this positive impact on profitability is due to bank management expectations of the rate of inflation, which might be used as rationale for adjusting interest rates accordingly, to increase revenues faster than costs.

Few other empirical studies confirm that there is a link between taxation, as an institutional characteristic of a country, and

banking profitability. Demirguc-Kunt and Huizinga, 1999 found that higher taxation diminishes bank profitability, meanwhile Albertazzi and Gambacorta, 2006 argued that taxation has a significant, although small impact on banking profitability because banks can shift a large fraction of their tax burden onto depositors, borrowers, or purchasers of fee-generating services.

Unlike a broad body of economic literature devoted to the study of profitability's macroeconomic determinants, Schipper 2013 empirically found that variables as GDP growth, taxation and inflation rate have no effect on profitability in the Slovakian and Polish banking systems, in any of the sample periods 1999-2011.

A singular study, comprising several European Union countries (Austria, Belgium, France, Germany, Greece, Italy, Ireland, Luxembourg, Portugal, Spain, the Netherlands and the United Kingdom), was performed by Ommeren, 2009 during the time span 2000-2009. He found that, except the GDP growth rate, the effective tax rate and term structure of interest rates are not significant determinants of banks' profitability. An interesting empirical finding is that a negative real GDP growth rate observable during the crisis period has a larger impact on banking profitability than a positive real GDP growth. To our knowledge, there is a singular study that examines the impact of economic freedom index on the performance of Islamic banks (Sufian, Zulkhibri 2011), the empirical findings showing a positive and significant influence.

3. Variables selection methodology and results

The choice of the exogenous variables to be included in our study has been based on the findings reported by previous studies in the field. We divided our dataset into three types of variables: a) macroeconomic, represented by GDP growth rate, inflation rate, unemployment rate and term structure of interest rates; b) institutional, consisting of the effective tax rate and the economic freedom index; c) public perception variables, comprising the economic sentiment indicator and a misery index called Okun index. The macroeconomic variables have been taken from the European Commission's Eurostat database, the economic freedom variables have been collected from The Heritage Foundation database, while data related to profitability and effective tax rate has been extracted from banks' annual reports.

The annual GDP growth rate depicts the dynamics of economic development both over time and between European economies of different sizes. It is expressed as one year percentage change. The inflation rate is represented in our study by the Harmonised Indices of Consumer Prices (HICPs), released by Eurostat for purposes of international comparisons of consumer price inflation. Unemployment rate was computed as an annual average, in percent. For the term structure of interest rates we employed the central government bond yields on the secondary market, gross of tax, with around 10 years' residual maturity.

The effective tax rate has been defined as the amount of taxes paid by banks divided by before-tax profits. This variable mostly consists of corporate income taxes and it's not homogenous across the EU banking systems, as tax rates vary widely. Our intent is to investigate whether this variable significantly impacts the profitability of the banks or, on the contrary, has negligible influence as banks prove able to shift their tax burden toward their regular customers.

The Index of Economic Freedom, annually computed by The Heritage Foundation, documents the positive relationship between economic freedom and a variety of positive social and economic goals. The ideals of economic freedom are strongly associated with healthier societies, cleaner environments, greater per capita wealth, human development, democracy and poverty elimination. Sustainable, socially responsible banks share the same ideals as those embedded into the index, as they use the financial flows to achieve long-term benefits for society and environment. This was the main reason for including the index among the set of explanatory variables, to get an insight of the relationship that exists between banking profitability and the different components of the index. In the study we have included not only the aggregate value of the index, but also some of its components, such as: fiscal freedom (belonging to the category limited government), business freedom and monetary freedom (belonging to regulatory efficiency) and the financial freedom (belonging to open markets category). As retrieved from the Heritage Foundation's 2014 presentation of the different freedom categories, financial freedom is a measure of banking efficiency as well as a measure of independence from government control and interference in the financial sector. Monetary freedom combines a measure of price stability with an assessment of price controls, while fiscal freedom is a measure of the tax burden imposed by government.

Business freedom is a quantitative measure of the ability to start, operate, and close a business that represents the overall burden of regulation as well as the efficiency of government in the regulatory process.

The Economic Sentiment Indicator (ESI) is an official, composite indicator computed and published regularly by European Commission, based on questionnaire surveys. It is made up of five sectoral confidence indicators (industrial confidence indicator, services confidence indicator, consumer confidence indicator, construction confidence indicator, retail trade confidence indicator), each of them being assigned different weights. The higher its value, the more confident are the EU countries' residents in the current developments and future outlook.

The Okun's misery index is another composite indicator whose focus is the assessment of the level of discomfort or dissatisfaction felt by the population and the private sector in a country. It has been developed in the '70s by the economist Arthur Okun and it is contemporaneously computed in the US, on a monthly basis. Its formula consists in adding the inflation rate and the unemployment rate, both entering with equal weights. The assumption is that a macroeconomic environment, characterized simultaneously by high unemployment and inflation, increases the economic and social costs of a country.

The rationale for including in the dataset the two indices, as proxies for the public perception, was to test whether people's awareness on the contemporary evolutions and prospects of real economy, transposed into the computed levels of the ESI and Misery index, might influence the financial performance of sustainable banks. Put in other words, we intend to investigate if socially responsible banks, with their clearly stated concern on the positive, long term impact that lending and investment activity exert on local communities and environment, might take benefits from the macroeconomic fundamentals' fluctuations, in the form of increasing their customers base, their activity and hence market share and financial performance, due to people's awareness that only a responsible banking behavior might stimulate the inclusive, sustainable economic development.

Regarding the dependent variable, we opted for the use of return on assets (ROA), defined as the share of banks' after tax profit in total assets. According to Flamini, McDonald and Schumacher,

2009, ROA is more suited for being used as proxy for bank profitability, instead of the alternative return on equity (ROE), because it takes into account financial leverage and the risks associated with it. This finding is also supported by Dietrich and Wanzenried, 2011 who argue that ROA is a better and stable measure of profitability and claim that banks with a lower leverage ratio (higher equity) usually report a higher ROA but a lower ROE. Other proponents of ROA as a reliable proxy for the financial performance of a bank are, among others Hassan and Bashir, 2003 who state that ROA reflects management's ability to appropriately employ banks' financial and real investment resources to generate profits. Sufian and Zulkhibri, 2011 observe that ROA level depends not only on the bank's management decisions but also on other uncontrollable factors relating to the economy and government regulations.

We relied on panel or cross-sectional time-series data as we aim at empirically investigating the sustainable banks' financial performance dynamics across time. The panel is balanced, meaning that the dependent and explanatory variables are observed for each of the 28 banks and each of the eight years considered, over the 2006-2013 time span.

We have employed time series with annual frequency, consequently our data set is not affected by the seasonal component. Further, it has been run the Augmented Dickey-Fuller test for the presence of unit root or non-stationary features. All the dependent and explanatory variables are stationary in levels, as the test values were lower than the critical thresholds and the probabilities associated with the test values were smaller than the most restrictive significance level, of 1%. The analysis of descriptive statistics provides an insight into the peculiarities of time series distribution, emphasizing which variables depict a normal distribution.

Table 1

Descriptive statistics

	ROA	GDP growth rate	Unempl. rate	Inflation rate	Interest rates term structure	Effective tax rate	Economic freedom	Economic sentiment indicator	OKUN index
Mean	0.57	0.48	8.35	2.28	4.36	24.9	69.21	97.61	10.63
Maximum	4.24	7.9	27.5	7.9	22.5	98.7	80.4	117.5	27.6
Minimum	0	-7.1	3.1	-0.9	1.4	0	53.4	73.3	4.7
Std. Dev.	0.65	3.16	4.56	1.27	3.056	17.29	6.79	11.62	4.52
Skewness	2.5	-0.6	2.36	0.66	3.65	1.67	-0.36	-0.308	1.83
Kurtosis	11.8	2.86	9.26	5.24	19.87	7.49	2.13	2.18	6.87
Jarque-Bera	952	12.6	574.8	63.58	3157.9	292.9	11.89	9.73	266
Probability	0	0	0	0	0	0	0.0026	0.0077	0
Observations	224	224	224	224	224	224	224	224	224
Cross sections	28	28	28	28	28	28	28	28	28

Standard deviation indicates a pattern of homogeneity of the time series, when it records low values. It is the case of ROA and inflation rate, which are the closest to their mean, followed by interest rates term structure, GDP growth rate, unemployment rate and Okun index. At the opposite are effective tax rate and economic sentiment indicator, with the highest standard deviation values, suggesting that the raw data recorded ample fluctuations across the time period and banks considered. GDP growth rate, economic freedom index and economic sentiment indicator recorded for the kurtosis statistic a value close to 3, signaling a pattern resembling to normal distribution. All the other variables depict values well above this threshold, meaning that the presence of extreme values is higher than in the case of a normal distribution. The most symmetric distributions, as pointed by the close to zero skewness, are those of GDP, inflation, economic freedom index and economic sentiment indicator. According to the probability associated to the Jarque-Bera test, the null hypothesis is rejected, meaning that the variables in the dataset do not follow a genuine normal distribution.

Further, it has been generated the correlations matrix to examine if there is the presence of multicollinearity between the explanatory variables to be used in the panel regressions. Statistical theory states that collinearity becomes a problem when the value of the correlation coefficient is above 0.80. In our dataset, the highest correlation has been recorded between unemployment rate and the Okun index (0.96). Consequently, to handle multicollinearity, we proceeded to estimating the regression models by including each of them at a time.

To complement the raw data analysis, it has been performed Granger causality tests. It should be outlined that the results of this test reflect historical correlations and not necessarily economic causation (Flamini, McDonald and Schumacher 2009). For the particular case of employing panel data, the economic theory proposes several approaches for causality testing: to treat the panel data as one large stacked set of data and perform the Granger test in the standard way, provided not to allow data from one cross-section enter the lagged values of the next cross-section or running regressions with pairs of variables to see how each variable affects changes in the other one, by introducing current and lagged values (Bellalah, Levyne and Masood 2013). We decided to apply a different, case-by-case approach, in which the Granger causality test has been

performed distinctly, for each bank in the sample. Thus, one could be better accounting for the macroeconomic, institutional and public perception particularities of each country of origin and their relationship with ROA (see table 2 for results).

Table 2

Results of the Granger causality test

Bank and country of residence	Granger test results Probability
ABN Amro, Netherlands	ROA causes GDP growth rate 0.0004
Barclays, United Kingdom	ROA causes interest rates term structure 0.01489
Bayern, Germany	ROA causes investment and fiscal freedom 0.055
BBVA, Spain	ROA causes investment freedom 0.03541
BCR, Romania	Investment freedom causes ROA 0.02913 Economic freedom causes ROA 0.00066
Deutsche Bank, Germany	ROA causes ESI 0.05253
BNP Paribas, France	ROA causes fiscal freedom 0.05173
Danske Bank, Denmark	ROA causes economic and monetary freedom 0.02163 and 0.015 Inflation rate causes ROA 0.051
EFG Eurobank, Greece	ROA causes business freedom 0.00617 Investment freedom causes ROA 0.00011
HSBC, United Kingdom	Economic freedom causes ROA 0.00901 ROA causes financial freedom 0.0000005 OKUN index causes ROA 0.01134 ROA causes effective tax rate 0.00838
HSH, Germany	Financial freedom causes ROA 0.00

ING Bank, Netherlands	Business and financial freedom causes ROA 0.01128 and 0.0122
Intesa Sanpaolo, Italy	Financial freedom causes ROA 0.01962 Monetary freedom causes ROA 0.04227
KfW, Germany	ROA causes GDP growth rate 0.0104
LBBW, Germany	ROA causes financial freedom 0.0000005 ROA causes OKUN index 0.02796
Nordea, Sweden	ROA causes economic freedom 0.03543 Fiscal freedom causes ROA 0.02722 Inflation causes ROA 0.00181
Piraeus Bank, Greece	ROA causes business freedom and OKUN index 0.0268 and 0.025
Rabobank, Netherlands	Business freedom causes ROA 0.01074
Raiffeisen, Austria	Monetary freedom causes ROA 0.00773
Royal Bank of Scotland, United Kingdom	ROA causes unemployment rate 0.00095
Societe Generale, France	Inflation rate causes ROA 0.04023
Standard Chartered, United Kingdom	ROA causes monetary freedom and OKUN index 0.0337 and 0.03773
Swedbank , Sweden	ROA causes monetary freedom 0.04705
Triodos, Netherlands	ESI causes ROA 0.0532

A common concern of researchers is how to model raw data, in order to obtain accurate and reliable statistical inferences. One problem that could arise after testing for unit root, seasonality and multicollinearity is endogeneity. It has been broadly defined as the correlation between the explanatory variables and the error term in a regression which gives rise to biased and inconsistent parameter estimates (Roberts, Whited 2012). Two of the sources of endogeneity are present in our study, namely the measurement error and the

omitted variables. The purpose of the study is to investigate the exogenous determinants of banks' profitability; thus bank specific-variables have not being included in the analysis. Regarding the measurement error, it arises when one uses proxies for measuring unobservable or difficult to quantify variables, such as relying on indexes, which is the case of this study.

Economic literature developed several econometric techniques to address the endogeneity problem, the most suited for our type of analysis being the panel data regression with fixed effects. Compared to classic regression analyses, panel data regression comprises both a spatial and a temporal dimension. The spatial dimension is represented by the observations assigned to the sustainable banks in the sample, while the temporal dimension consists of several time periods. By means of fixed effects one could explain variation within individual banks in the sample.

Our baseline panel regression model is as follows:

$$ROA_{it} = M_{it} + I_{it} + P_{it} + \mu_i + {}_{it}$$

where

$i = 1,2,....N$ represents the number of sustainable banks in the sample

$t = 1,2,....T$ is the time period

ROA_{it} = the dependent variable, depicting the profitability of bank i at time t

M_{it} = a vector of country-specific macroeconomic variables

I_{it} = vector of institutional variables

P_{it} = vector of public perception variables

μ_i = the banks' fixed effect

${}_{it}$ = the error term

To check the robustness of the results, we decided to perform our panel regressions by applying two methods: the pooled least squares method, which gives equal weight to all explanatory variables, and the Generalized Least Squares (GLS) which uses cross-section weights, represented by the estimated cross-section residual variances.

Table 3

Results of the panel data regressions

Method: Pooled Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Probability
GDP growth rate	0.071746	0.015451	4.643391	0
Inflation rate	-0.11289	0.040429	-2.79219	0.0058
Interest rates term structure	-0.02644	0.019379	-1.36416	0.1742
Effective tax rate	0.001807	0.002222	0.813508	0.417
Economic freedom	-0.05885	0.030465	-1.93184	0.0549
Fiscal freedom	0.011853	0.019006	0.623661	0.5336
Business freedom	0.005471	0.015917	0.343735	0.7314
Monetary freedom	0.024643	0.0134	1.839021	0.0675
Financial freedom	-0.00709	0.008066	-0.87951	0.3803
ESI	-0.00232	0.004072	-0.56927	0.5699
OKUN index	0.003953	0.016641	0.23757	0.8125
Method: GLS (Cross Section Weights)				
Variable	Coefficient	Std. Error	t-Statistic	Probability
GDP growth rate	0.040192	0.007046	5.704362	0
Inflation rate	-0.04485	0.021167	-2.11887	0.0354
Interest rates term structure	-0.01561	0.012041	-1.29646	0.1964
Effective tax rate	-0.00163	0.001111	-1.46766	0.1439
Economic freedom	-0.03881	0.013151	-2.95115	0.0036
Fiscal freedom	0.010473	0.008335	1.256514	0.2105
Business freedom	-0.00505	0.00748	-0.67534	0.5003
Monetary freedom	0.021733	0.005451	3.986874	0.0001
Financial freedom	-0.00259	0.003309	-0.78199	0.4352
ESI	0.000714	0.001793	0.397975	0.6911
OKUN index	-0.02595	0.007533	-3.44436	0.0007

By comparing the estimates of the two methods it could be noticed that the coefficients of GDP growth rate, inflation rate, economic freedom index and monetary freedom are always

statistically significant, whereas the Okun index is significant only when applying the weighting method. The two types of regressions have been run again, by replacing the Okun index with the unemployment rate, as the two explanatory variables proved to be highly correlated. The results remained unchanged, the only difference being that unemployment rate is significant in the weighting method. Also, it has been estimated the fixed effect, as an individual constant for each bank in the sample. The biggest its value, the more pronounced the tendency for improvement in bank's profitability across the time span considered (Codirlasu, 2010). In all model specifications the highest values of the fixed effect have been recorded by ABN Amro (Netherlands), followed by Standard Chartered and HSBC (both in UK), while the lowest were recorded by Societe Generale (France), LBBW and HSH (both in Germany). To sum up, according the regressions' output the dynamics of the dependent variable ROA is determined mainly by macroeconomic variables (GDP growth and inflation rate) and by an institutional variable (economic freedom index and one of its components, the monetary freedom index). Our results are in line with previous empirical findings of economic literature devoted to this field of research.

4. Conclusions

By relying on a balanced bank level panel data, comprising 28 socially responsible banks in 13 EU countries, we aimed at investigating which are their specific exogenous determinants that significantly affect profitability.

It was found that public perception variables do not have a concluding influence on sustainable banks profitability, at least in the short term. The Okun index is highly statistical significant only when applying weights to explanatory variables and has a negative relationship with ROA. The negative sign of the index is consistent with the economic intuition that low levels of economic discomfort, in terms of unemployment and inflation, enhance banking activity and financial performance. However, it seems that socially responsible banks' profitability is still mainly driven by traditional macroeconomic determinants.

Our findings show that GDP growth rate has a positive and high influence on ROA, whereas inflation rate and the economic freedom index affect it negatively. Interestingly, a high level of the

economic freedom index is not necessarily a precursor of sustainable banks' profitability. This result may be due to the fact that the time period considered comprises the entire pre, during and post crisis period, without differentiating between normal and financial turmoil times. Monetary freedom exerts a positive impact on profitability, meaning that price stability, which is synonymous with low inflation rate, provides a predictable, stable environment for businesses development and contributes to improving profitability. All the other economic freedom components, as well as taxation and term structure of interest rates do not significantly affect banks profitability.

In order to check for the robustness and stability of the results, we removed from the set of independent variables all the components of the economic freedom index and repeated the fixed effect panel regressions. The new estimates showed that the previous results remained mostly the same: the coefficients' sign and level is similar and significant as in the baseline regression specifications.

Acknowledgement

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