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Auditing Practices during Pandemic Times – Implications, Prospects and Leading Factors

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Abstract

The paper subscribes to a current concern related to audit profession and auditing practices during pandemic times and has a two-fold objective. The first one gravitates around performing a review of the recent official opinions in the field of audit and corporate governance and its contribution to the overall economic indicators. The second objective aims at identifying the institutional, regulatory, economic and financial environment indicators that may exert an impact on the strength of auditing and reporting standards, to uncover whether country-specific environments contribute to strengthening the quality of audits. The empirical analysis comprises 28 European countries, covering a timeframe from 2000 to 2019 and relies on a panel regression framework. The set of explanatory variables considered comprises: i) a financial environment proxy, represented by the Index of Financial Stress; ii) an economic development variable, represented by GDP per capita growth rate; iii) country governance indicators, such as the political stability, the regulatory quality, the control of corruption and the economic policy uncertainty. A dummy variable related to the status of a country's membership to the Euro-zone will be also tested, to reveal whether the strength of auditing and reporting standards is determined by the country's membership to this group. Another dummy variable included in the analysis is related to the occurrence of the 2008 global financial crisis and is meant to serve as a proxy for another global turmoil time, similar to the one witnessed at present. The conclusions will allow us to formulate some remarks and expectations regarding the potential impact of the pandemic on the strength of audit standards and the potential challenges that may arise in the future for this profession.

Keywords: Audit profession, auditing standards, pandemic, panel regression.

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1. Introduction

The auditor's responsibility is to obtain sufficient and appropriate evidence before issuing the auditor's report on the financial position and performance of the companies operating in certain business environments. In other words, auditor's report provides evidence that the financial report presents a true and fair view of a company's financial position and performance. The auditing practices usually have been considered the most relevant surveillance mechanism in the process of corporate governance because all business decisions are based on the information presented in financial statements. If the auditing practices are failing, then all other research and findings about the financial position and performance of the companies are under the question.

Despite of the fact that all auditors within the European Union are operating under the same financial and auditing standards, there are still many differences in auditing practices among the EU countries. This is due to different factors that go beyond the financial reporting and auditing standards. However, in uncertain circumstances, financial environment, governance indicators and economic development play a crucial role in this process as well.

The aim of this paper is to investigate the influence of several country-specific governance indicators, financial and economic environment indicators on the strength of auditing standards among EU countries. There are many researches finding that financial and economic environment indicators have a strong impact on auditing practices in the EU countries. For instance, it is assumed that better regulatory environment at the national level leads to stronger auditing practices. In addition, active measures in preventing corruption can be translated into stronger auditing practices. At the opposite, economic and legal constrains lead to poor quality of auditing practices. These factors are increasingly more highlighted in the challenging-pandemic times.

2. Auditing in the context of financial environment, governance and economic development indicators

The OECD usually promotes the best world practices. Among other issues of good corporate governance principles, it is presented that the "information should be prepared and disclosed in accordance with high quality standards of accounting and financial and non-financial reporting" (OECD, 2015, p. 42). In other words, investor's protection is critical to efficient capital formation to fund innovation and entrepreneurial risk taking (Doty, 2014.) In that sense, audit can promote long-term capital investment, but to do so, investors must consider it to be relevant and reliable (Doty, 2014). To provide relevant and reliable financial statements, the role of auditing is crucial in that sense. An annual audit should be conducted by an independent, competent and qualified auditor, in accordance with high-quality auditing standards, in order to provide an external and objective assurance to the board and shareholders that the financial statements fairly

represent the financial position and performance of the company in all material aspects (OECD, 2015, p. 43).

Prior studies have identified several factors associated with the economic growth of a country, including a country's: legal system, banking system, stock markets, and accounting standards (Abdolmohammadi, Tucker 2002). The focus of the researchers was to examine cross-country differences in accounting and auditing to assess their role in a country's economic development. Many research papers are focused on the governance indicators and its influence on the strength of auditing and reporting standards (Michas, 2011; Hasanuddin, 2018). These studies aimed at analysing the influence of governance indicators on the integrity of financial statements. However, due to the actual unexpected events, new indicators should be included in the model (Accountancy Europe, 2020). In that sense, the value added by this paper refers to connecting strength of auditing and reporting standards to the financial environment, governance and economic development indicators considered among EU countries.

3. Methodological Insights and Variables Selection

3.1. Variables employed and data sources

In order to comprehensively assess the influence of several country-governance indicators and of financial and economic environment indicators on the strength of auditing standards among EU countries, it has been considered a sample of 8 explanatory indicators, out of which 2 are represented by dummy variables. Details on all indicators employed in the analysis, brief explanations and sources of data can be found in table 1.

Table 1. Variables employed and data sources

Type of indicator	Indicator	Explanation	Source
Audit practices	Strength of Auditing and Reporting Standards Index	The index is computed based on survey responses to the question "In your country, how strong are financial auditing and reporting standards?" The level 1 is extremely weak, while 7 is extremely strong.	World Economic Forum Global Competitiveness Index (Schwab, 2019)
Financial environment	Index of Financial Stress	Financial stress measure computed individually for each EU country, that captures three financial market segments: equity markets, bond markets and foreign exchange markets.	European Central Bank

Type of indicator	Indicator	Explanation	Source
Governance indicators	Political Stability	It measures public perceptions of the likelihood of political instability.	Worldwide Governance Indicators, http://info.worldbank.org/governance/wgi/#home
	Regulatory quality	Public perception of government's ability to design and implement sound policies and regulations.	
	Control of corruption	It reflects public perceptions of the extent to which public power is exercised for private gain.	
	Economic Policy Uncertainty - EU level	It measures the European policy-related economic uncertainty, by counting the frequency of newspaper articles containing the terms uncertain or uncertainty, economic or economy, and one or more policy-relevant terms.	Baker, Bloom, Davis, Measuring Economic Policy Uncertainty
Economic development	GDP per capita growth rate	Gross domestic product divided by mid-year population number; it accounts for a country's economic development or well-being.	Eurostat

Source: Authors

The indicators included in this study are based on theoretical considerations and debates launched by practitioners and economic literature. All of them are investigated now for the first time, in an empirical manner. The first dummy variable is related to the status of a country's membership to the Euro-zone. The analysis will reveal whether the strength of auditing and reporting standards is determined by the country's membership to this group. The dummy variable for the occurrence of the 2008 financial crisis is meant to serve as a proxy for a global turmoil time, similar to the one witnessed at present. The conclusions will allow us to formulate some remarks and expectations regarding the potential effect to be triggered by the pandemic on the strength of auditing standards.

The cross-section sample is represented by twenty-eight European countries, while the time dimension covers the period ranging from 2000 to 2019, data being collected with annual frequency from official databases of various institutions.

The research hypothesis tested below is aimed at uncovering whether a country's auditing practices are determined by the dynamics of the economic, financial and state's governance capabilities.

3.2. Model specification

The empirical analysis employs the panel data regression technique, because our intent is to simultaneously analyse all 28 European countries in the sample, by accounting for both a cross-section and a time dimension. In addition, we benefit from a large number of observations in the initial sample so as to ensure the reliability of estimates. Another reason for using panel regression has its roots in the econometric theory (Roberts & Whited 2012; Wooldridge 2003) which claims that in cases of endogeneity, the statistical accuracy of estimates may be distorted. In our study, there is a source of endogeneity, represented by measurement errors or computational inaccuracies due to the use of proxy variables, such as indexes or other composite indicators used to assess unobservable or difficult to quantify variables.

The general specification of the panel regression model is as follows:

$$\text{Strength of auditing practices}_{it} = \sum \alpha G_{it} + \beta\ \text{GDP per capita}_{it} + \Omega\ \text{Financial stress}_{it} + \text{Dummy}_{\text{euro-zone}} + \text{Dummy}_{\text{financial crisis}} + \varepsilon_{it} \quad (1)$$

where:

$i = 1, 2, \ldots, N$ represents the number of countries in the sample;

$t = 1, 2, \ldots, T$ is the time frame;

Strength of auditing practices $_{it}$ = the dependent variable for the country *i* at the time *t*;

G_{it} = vector of governance indicators;

ε_{it} = the error term.

The panel data regression has been estimated with the Pooled EGLS (Cross-section random effects) method. Hausman Test for Correlated Random Effects indicated that there is presence of random effects. Therefore, the panel regression with random effects best describes our data.

4. Results Obtained and Interpretation

Before running the panel regression, all variables have been tested for collinearity and unit root presence. In addition, in order to gain preliminary information on the statistical features of these time series, a series of descriptive statistics has been computed.

Table 2. Summary of basic descriptive statistics

	Strength of auditing practices	Index of finance. stress	Political Stability	Reg. Quality	Control of Corruption	EPU	GDP per capita	Dummy Euro-zone	Dummy financial crisis
Mean	5.223736	0.14124	71.6304	84.5492	78.0989	172.5391	1.394	0.678	0.18181
Median	5.207961	0.102	71.2600	84.6153	79.6208	167.25	1.600	1	0
Maximum	6.532445	0.57	100	100	100	274.78	23.98	1	1
Minimum	3.886952	0	30.2884	59.13	47.0873	81.22	-14.26	0	0
Std. Dev.	0.638667	0.10977	14.4071	9.59135	15.2205	51.56666	4.148	0.467	0.386
Skewness	-0.08222	1.71771	-0.3227	-0.2129	-0.2509	0.185629	0.470	-0.764	1.64991
Kurtosis	1.926804	6.26431	2.78094	1.99791	1.71119	2.6014	9.246	1.584	3.7222
Jarque-Bera	15.1277	288.210	5.96361	15.2154	24.5487	3.807313	512.1	55.72	146.434
Probability	0.000519	0	0.05070	0.00049	0.00000	0.149023	0	0	0
No. obs.	308	308	308	308	308	308	308	308	308
Cross sections	28	28	28	28	28	28	28	28	28

Source: Authors, based on Eviews

The minimum and maximum values recorded by each variable are two summary statistics with straightforward interpretation: the higher the difference between them, the largest the fluctuations recorded by a variable across given countries and timeframes. The economic policy uncertainty exhibits the larger gap between these statistics, being a sign of ample heterogeneity in the time series values. Political stability, regulatory quality and control of corruption follow a similar pattern of evolution, experiencing however fluctuations across countries. The lowest difference among maximum and minimum levels is recorded for the financial stress index, followed by the audit strength index.

The time series variability feature across time and countries is complemented by the standard deviation statistics, which emphasizes the spread of a time series' values around their mean. Higher levels of standard deviation are associated with greater heterogeneity within the sample. In our case, economic policy uncertainty exhibits the largest deviation (51.56) across all considered countries and time periods, followed by control of corruption (15.22), political stability (14.40) and regulatory quality (9.59). This result indicates that the presence of extreme low or high values is more frequent for these specific variables. At the opposite is the index of financial stress, which records the lowest standard deviation among all considered variables.

The skewness and kurtosis statistics provide additional information regarding the shape of the distribution function. Five time series out of the 9 considered have a kurtosis level below the threshold 3, therefore one can assume that the distribution function is platikurtic and its height is lower than that of a normal distribution. Skewness levels indicate that four time series depict a positive asymmetry, meaning that higher values of the variables are more present in the time series than lower ones. Another five time series (audit practices, regulatory

quality, political stability, control of corruption, Euro-zone dummy) show negative asymmetry and hence lower values are prevailing in the sample.

Table 3 synthesizes the panel estimation results for the model specification, by controlling the countries' degree of economic development (measured as GDP per capita) and membership to Euro-zone.

Table 3. Output of the regression analysis

Dependent Variable: Strength of auditing practices				
Method: Pooled EGLS (Cross-section random effects)				
Cross-sections included: 28				
Total pool (balanced) observations: 308				
Swamy and Arora estimator of component variances				
Cross sections without valid observations dropped				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Intercept	1.325796	0.364484	3.637457	0.0003
Index of financial stress	0.488467	0.209806	2.328187	0.0206
Political Stability	0.003789	0.00247	1.533923	0.1261
Regulatory Quality	0.031934	0.00604	5.287388	0
Control of Corruption	0.013983	0.004247	3.292248	0.0011
Economic Policy Uncertainty	-0.00106	0.000337	-3.13277	0.0019
GDP per capita growth	-0.00933	0.00498	-1.8742	0.0619
Dummy Euro-zone	-0.06885	0.10413	-0.66114	0.509
Dummy financial crisis	0.041423	0.053449	0.775005	0.4389

Source: Authors, based on Eviews

The dummy related to the country's membership to the Euro-zone is not statistically significant in relation to the dependent variable, suggesting that auditing and reporting practices are harmonized across countries, no matter they use or not the single currency.

Irrespective of the length considered for the 2008 global financial crisis, namely 2008-2009 or an expanded period of 2008 – 2011, the estimated coefficient for the dummy variable is never statistically significant. Hence, this dummy doesn't exert an impact on the dependent variable audit strength. By extrapolating this result to the actual pandemic crisis implications on the auditing practices strength, it isn't expected to generate a shift in the reliability and soundness of auditing practices.

As regards the threat of systemic risks occurring in the financial system, proxy with the variable index of financial stress, there is a positive relationship between it and the dependent variable, suggesting that in times of financial turmoil the auditing practices tend to be strengthened.

In terms of country's governance indicators, three out of four indicators are highly statistically significant. There is a positive sign between regulatory quality, the control of corruption and the dependent variable. Better and sound state's regulations and increased monitoring and sanctioning of the corruption phenomenon are translated into strengthening auditing practices. The economic policy uncertainty index, as a proxy for people and companies' economic sentiment and belief regarding the actual and future economic policy predictability, is negatively related with the dependent variable. Thus, in times of low uncertainty and increased predictability of economic policies and strategies, the auditing and reporting practices tend to be strengthened by audit companies.

Decreases of economic development and wellbeing, expressed by GDP per capita, further generate a strengthening of audit practices. This result may be explained by relying on the arguments brought by Doty (2014), which claims that the audits have to be as reliable and useful as required and make use of increased professional skepticism in order to consolidate investors' trust and help promoting capital formation for subsequent economic growth and business development, while maintaining cost-effective protection for investors.

Apart from the average value of the intercept computed for all countries in the sample, the effect estimation has computed also an individual intercept for every country, as a deviation from the overall average. Therefore, the results reported for each country are slightly different, due to the intercept value. It appears that in Malta, Austria, Belgium and Hungary, the cumulative impact of all independent variables is more pronounced than in other countries.

5. Conclusion

This paper develops an empirical model examining the influence of different indicators on the strength of auditing and reporting standards among the EU countries. As assumed, the results of panel regressions showed that auditing and reporting practices are harmonized across countries, no matter they use or not the single currency. In terms of country's governance indicators, three out of four indicators are highly statistically significant. There is a positive sign between regulatory quality, the control of corruption and the dependent variable. This means that better quality in state regulations and increased monitoring and sanctioning of the corruption phenomenon are strengthening auditing practices. The economic policy uncertainty index, as a proxy for people and companies' economic sentiment and belief regarding the actual and future economic policy predictability, is negatively related to the strength of auditing and reporting. Thus, in times of low uncertainty and increased predictability of economic policies and strategies, the auditing and reporting practices tend to be strengthened by audit companies. Decreases of economic development and wellbeing, expressed by GDP

per capita, further generate a strengthening of audit practices. However, the significant impact on the indicators can be attributed to the pandemic year. In this context, it is recommended to repeat this research next year. The input data will probably differ due to the pandemic year.

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