THE LINKAGE BETWEEN INTANGIBLES AND PROFITABILITY

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ABSTRACT: The intangibles can be viewed as strategic assets, since their inclusion in the structure of the total assets allows economic entities to extract a "competiveness rent" and, thus, to enhance the outcomes of their activity. This paper seeks to provide some empirical evidences for the effects exercised by shocks emerged at the level of intangible-to-total assets ratio on profitability in the case of 562 large companies listed on Frankfurt Stock Exchange and London Stock Exchange. We found that, for the full sample, there is a relatively steady relationship between this ratio and various measures of profitability (Return on Assets - ROA, Return on Capital Employed – ROCE and Gross Margin). However, when the two markets as whole or different sectors are considered, there seem to be various significant structural differences and some scale effects in the transmission of the intangibles' impact on profitability. Moreover, we check the robustness of the results in view of two control variables: cash flow-to-operating revenue ratio appears to be the most robust, whereas the effects of solvability ratio are less stable and vary across markets and sectors.

Keywords: intangibles, profitability

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Introduction

The purpose of this research is to demonstrate that the intangible-to-total assets ratio has a direct effect on the profitability of the very large companies in the Frankfurt Stock Exchange and London Stock Exchange. The reason why we chose to study the impact of intangibles on a company's profitability resides in the growing importance of intangible assets. In support of this assertion, Bloom (2008) highlights the results of an analysis of the 500 Fortune companies, conducted by Ernst & Young, which shows that in 1975, on average, 60% of the capitalization of the companies consisted of tangible assets, while in 1995, that percentage dropped to only 25%, in favor of intangible assets and the trend was confirmed to have continued in the following years. While the focus steadily switched from tangibles to intangibles in the latest years, the latter became strategic assets. Fiordelisi et al. (2012) demonstrate that a higher level of intangible assets determines a lower reputational damage, which they assume is due to the fact that investors trust that a higher level of intangible assets is future related to profitability, to cover for any losses that may occur. We demonstrate their belief.

In summary we have two main results: first, we show that indeed a direct relationship exists between the level of intangibles and profitability, by comparing the intangibles-to-total assets ratio to other measures of profitability such as ROA, ROCE and Gross Margin; and second, when we test for the two markets as a whole or for different sectors in these markets we identify structure

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differences between the sectors and scale effects in the transmission of the intangibles' impact on profitability.

The remainder of this article is organized as follows. In Section two we present a review of the literature. In Section three we provide an overview of the empirical research design, the data and the methodology we used. We discuss our results and robustness checks in Section four. Finally, in Section five we offer our concluding remarks.

Literature review

Agency theory undeniably ties intangible assets with a series of costs which a company may have: equity and debt, transaction and bankruptcy or information asymmetry costs. And, as Alves and Martins (2010) suggest, these costs influence a company's financial and governance policies. These policies are therefore adopted to minimize the abovementioned costs and to improve a company's profitability. Whether or not and how the level of intangibles impact a company's profitability we explain in Section four.

Intangible assets literature provides contradictory results when it comes to the impact of the structure of intangibles on a company's profitability. Becalli (2007) finds a profitability paradox: a company's investment in IT software and services has a negative impact on the company's profitability, whereas the investment in IT supplied by external providers, such as consulting, implementation, support services, has a positive impact. Her results are backed-up by prior studies conducted by the Council of Economic Advisors (2001) and McKinsey Global Institute (2001), which document a negative correlation between IT spending and productivity. Our research confirms there is a higher degree of uncertainty when intangibles are valued using a market approach methodology, especially if intangibles are analyzed by components.

Hidayati et al. (2012) prove that for the sample they studied, there is positive correlation between intangibles and the competitive advantage of a company and that companies which signal a higher level of intangibles to the market will receive a positive response from the market. Their results, similar to ours, highlight the existence of differences between the industry sectors which they analyze.

The relationship between intangibles and profitability has been widely discussed in the literature. Megna and Muller (1991) address the question of why there is such a big difference between profitability rates among different industries. They attribute the high profitability to high level of intangibles, especially resulting from advertising and R&D. Omil et al. (2011) demonstrate that high profitability firms substantially emphasize the need for careful management of intangibles and its connecting factors: employees' productivity, innovation activities, and business relationships.

Data and methodology

Data

The data cover a 10-year period, between 2001 and 2010, with yearly values for all the variables. These variables X have been previously standardized according to the following formula (where μ is the mean and σ is the standard deviation):

$$X^{\text{standardized}}_{i,t} = \frac{\left(X_{i,t} - \mu_X\right)}{\sigma_X} \quad (1)$$

The sample of 562 all sectors' companies consists of 251 companies listed on Frankfurt Stock Exchange (FWB) and 311 listed on the London Stock Exchange (LSE). The information is provided by Amadeus database. In order to ensure that companies are in a "steady state", the existence of financial data in the Amadeus database for the entire analysis period is required. In addition, to avoid any methodological bias, the non-available data are not filled in by an

extrapolation procedure. We include only very large companies in order to control for possible scale effects.

The relative importance of the intangible assets is reflected by the intangible fixed assets-to-total assets ratio. The profitability of the companies is estimated by the *Return on Assets* – ROA ratio (interest expenses are excluded from computation). This reflects the capacity of a company's assets to generate earnings, being an indication of the capital intensity.

The sample's descriptive statistics are reported in Table 1. The non-normal values of the distribution parameters suggest important cross-section heterogeneity of data. Indeed, 30% of the standardized ROA values are between -5 and 0, whereas 69.51 % of the values are between 0 and 4.80. Furthermore, 0.35% of the data can be viewed as outliers. For intangibles-to-total assets ratio, 64% of the data are between -1.24 and 0, while 35.83% are between 0 and 8.48. 0.10% of the data are outliers.

Table no. 1

Summary statistics of intangible fixed assets weight in total assets and ROA

	Intangible fixed assets / Total assets	ROA
Mean	0.00	0.00
Maximum	41.13	5.21
Minimum	-1.25	-7.18
Std. Dev.	1.00	1.00
Skewness	16.25	-2.11
Kurtosis	566.50	11.65
Observations	5450	5524

We consider as control variables two key financial ratios: the solvency ratio and, respectively, the cash flow-to-operating revenue. For instance, the sensitivity of companies' investments, and, so, the impact of profitability on cash flows can be viewed as a measure of the frictions faced in resource allocation processes (Fazzari, Hubbard and Petersen, 1988, Bond and van Reenen, 2006, Kaplan and Zingales, 1997, Becler and Sivadasan, 2006). If the external financing is available costless and without informational and institutional frictions, than the investments should be driven by market opportunities and not by financial restrictions in the level and structure of internal resources. Thus, the cash flow to operating revenue ratio reflects the capacity of the company to control the resources allocation in the presence of various frictionary factors. Also, there may be a connection between the level of solvability and the estimation of investments' risks (Lensink, van Steen and Sterken, 2005). A lower level of solvability may reduce the incentives for new investments as it increase the uncertainty and affect the risk aversion.

Methodology

In addressing the relationship between profitability and the relative weight of intangible assets, the problem of reverse causality is especially important. More exactly, it can be argued that higher previous levels of profitability are equivalent to higher ability to invest in various types of assets, including intangibles in order to secure the company's competitiveness. Thus, there may be a two-way relationship between the level and structure of intangibles and profitability, as well as possible unobserved company specific effects. Such effects may produce inconsistent estimates given that country specific effects are likely to be correlated with the explanatory variables. In the presence of any correlation between the right hand side variables and the country specific effect, estimation methods such as ordinary least squares will not be consistent. Finally, the orthogonality condition between the error term and the regressors is not likely to be met for either the *Generalized Least Squares* or the *Fixed Effects* estimator to produce consistent estimates.

Based on Arellano and Bover (1995), Blundell and Bond (1998) proposed a system estimator using, on one hand, moment conditions in which lagged differences are employed as instruments for the level equation and, on the other hand, moment conditions of lagged levels as instruments for the differenced equation. There are several advantages of the *Generalized Method of Moments-System* (GMM-System) over other static or dynamic panel estimation methods. Among these: static panel estimates, as the OLS models, are subject to dynamic panel bias (Bond, 2002); in our database, we have 562 companies (N) analyzed over a period of 10 years (T) and the literature provides several arguments, including that the dynamic panel model is specially designed for a situation where "T" is smaller than "N" in order to control for dynamic panel bias (Bond 2002; Baltagi 2008); the issue of potential endogeneity can be easier addressed in dynamic panel models, than in static and OLS models, since all variables from the regression that are not correlated with the error term (including lagged and differenced variables) can be potentially used as valid instrumental variables; the dynamic panel model is able to identify short and long-run involved effects (Baltagi, 2008). Also, the GMM-System exploits the stationarity restrictions, while the first-differenced GMM estimator may behave poorly when the time series are persistent.

Furthermore, if the panel data are unbalanced, than first-differenced GMM methodology can widen the gaps between these (Roodman, 2007). Such problem can become serious when the data are characterized by high heterogeneity. In human and economic development panel studies, one can easily expect such situation. Overall, the standard GMM estimator are suitable only for data in which the spatial dimension is very large, and their properties are valid asymptotically, which is seldom the case with macro cross-countries data. Also, Arellano and Bond (1991) estimator can perform poorly if the autoregressive parameters are too large or the ratio of the panel-level effect variance to the variance of idiosyncratic error is too large.

In consequence, we involve the GMM-System estimator trying to compensate such issues specific for a small sample of persistent data. A cautionary note should be considered: the consistency of the GMM requires no second order serial correlation in the first differences of the error term. The specification tests for the quality of the GMM estimators are the *Sargan test* of over identifying restrictions and the test of lack of residual serial correlation. The *Sargan test* is based on the idea that the residuals should be uncorrelated with the set of exogenous variables if the instruments are truly exogenous (see, for instance, Dahlberg et al. 2002). Because the first difference of independently and identically distributed idiosyncratic errors will be auto-correlated, rejecting the null hypothesis of no serial correlation at order one in the first-differenced errors does not necessarily imply that the model is miss-specified. However, rejecting the null hypothesis at higher orders strongly implies that the moment conditions are not valid.

Results and robustness check

Results

Table 2 reports the GMM-System estimates of models incorporating the intangibles-to-total assets ratio as well as control variables.

Table no. 2

Intangible-to-total assets ratio and ROA (GMM-System estimation) (2001-2010)

Variable/ Market	Frankfurt	London	Full sample
Intangible fixed assets / Total assets	0.005**	0.09**	0.11***
	(0.002)	(0.04)	(0.04)
Solvency ratio	0.18***	0.05*	0.13***
	(0.04)	(0.03)	(0.03)
Cash flow / Operating revenue	0.44***	0.35***	0.43***
	(0.04)	(0.03)	(0.03)
Sargan test of over-identifying restrictions	43.66	55.49	67.10

H0: over-identifying restrictions are valid	[p=0.21]	[p=0.10]	[p=0.01]
1st order autocorrelation	-4.47	-3.22	-5.24
H0: no autocorrelation	[p=0.00]	[p=0.00]	[p=0.00]
2st order autocorrelation	0.79	1.11	1.04
H0: no autocorrelation	[p=0.43]	[p=0.26]	[p=0.30]
Observations	1450	2026	3802

Notes: ***, **, and * represent statistical significance at 1%, 5%, and 10% level. Figures in () bracket represent robust errors; one lag of the dependent variables and a constant are included in all models but not reported here. All the models use lagged values of all endogenous regressors. In all models, the dependent variable is the *Return On Assets* – ROA ratio.

For the full sample, all the explanatory variables appear to be positive and statistic significant at 1% related to ROA.

Since the standardization of the variables implies that the standard deviation is equal to one, their coefficients can be interpreted as the 100*[exp (β) -1]- percent increase in ROA due to a one-standard deviation change in their levels. Thus, these estimates imply that one standard deviation improvement in these variables leads to between a 0.12-fold for the intangible-to-total assets ratio, 0.14-fold for solvency ratio and 0.54-fold for cash flow-to-operating revenue ratio increase in the measure of profitability. However, at the level of the two individual markets the picture is somehow different. While the positive sign is preserved for all variables, only cash flow-to-operating revenue ratio is statistic significant at 1% for both markets. The intangible-to-total assets ratio is significant at 1% on FWB market but only at 5% on LSE. Also, the level of this ratio on ROA is substantially different: while on FWB one standard deviation improvement in intangible-to-total assets ratio induces a reaction in the ROA equivalent with a 0.005-fold increase in ROA, this reaction is equivalent with a 0.09-fold increase in ROA on LSE. The influence of the solvency ratio, with a contribution of 0.20-fold increase in ROA, is larger on FWB compared to LSE (0.05-fold increase). Finally, a standard deviation of cash flow-to-operating revenue ratio leads to a change of 0.55-fold (for FWB) and 0.42-fold (for LSE) in ROA.

In the evaluation of results' quality, one cautionary note should be considered for serial correlation in the first-differenced errors: since the first difference of independently and identically distributed idiosyncratic errors will be serial correlated, rejecting the null hypothesis of no serial correlation in the first-differenced errors at order one does not necessarily imply that the model is in fact misspecified. However, the rejection of this null hypothesis for higher orders may imply that the moment conditions are not valid. Thus, it can be concluded that the Sargan and second order autocorrelation tests support the quality of the models estimated with the GMM-System procedure for the full sample and individual markets.

These results suggest that market frictions are main determinants in profitability differences on these markets, their relative importance surpassing the contribution of solvency and intangibles' weight. Table 3 reflect some stylized facts on financial intermediation in Germany and United Kingdom that may help to place such outcome in a macroeconomic framework. If the differentials of domestic credit to private sector (% of GDP) and, respectively, market capitalization of listed companies (% of GDP) are estimated, then it can be noticed that the size of financial intermediation is relatively lower in Germany compared to the United Kingdom and the differentials are higher in the last sub-period of the considered time span. Thus, it can be presumed that there are some structural and functional differences in market efficiency as well as in the configuration and actions of frictionary factors between FWB and LSE and these differences are reflected at the level of the financial ratios' impact on profitability.

Table no. 3

Stylized facts on financial intermediation in Germany and United Kingdom

Germany-United Kingdom differentials (averages values)	2001-2010	2001-2005	2006-2010
Domestic credit to private sector (% of GDP)	-59.07	-29.65	-88.49
Market capitalization of listed companies (% of GDP)	-82.91	-86.64	-79.17

Source of data: World Bank (2012). *World Development Indicators* http://databank.worldbank.org/ddp/home.do

This analysis cannot clarify all the details, but can illustrate the big picture: market frictions contribute to amplifying / reducing the efficiency of internal allocation mechanisms and to the final outcome of companies' activity. In particular, the intangibles' main characteristics - the company and intellectual capital dependency, the low debt collateralization, the valuation difficulties and the specific nature of associated risks - can for instance affect the agency costs of debt (Frankel, Seethamraju and Zach, 2008, Alves and Martins, 2010), information asymmetry (Myers and Majluf, 1984) or the leverage levels (Alves and Martins, 2010). However, such effects are economic environment-dependent and the involved transmission channels are acting accordingly to the market characteristics. In order to investigate further the role played by the nature and taxonomy of intangible assets, as these are sector-specific, we divide the full sample into several sectors of activities. The companies are classified accordingly to *Nomenclature statistique des activités économiques dans la Communauté européenne* (NACE - Rev. 2) into seven sectors encompassing the full spectrum of economic activities for both markets. The GMM-System is applied for each of these sectors in order to estimate the involved parameters. The results are reported in Table 4.

Table no. 4

Intangible-to-total assets ratio and ROA (GMM-System estimation, full sample, various sectors) (2001-2010)

Variable / Sector	Agriculture forestry fishing; Mining, and quarrying	Manu-facturing	Electricity, gas, steam and air conditioning supply; Water supply; sewerage, waste management and remediation activities, construction; Wholesale and retail trade; repair of motor vehicles and motorcycles	Transportation Accommodation and food service activities, information and communication	Financial and insurance activities; Real estate activities; Professional, scientific and technical activities	Administrative and support service activities	Public administration and defence; compulsory social security; Education; Human health and social work activities; Arts, entertainment and recreation; Other service activities
Intangible fixed assets / Total assets	0.002 (0.19)	0.004 (0.006)	-0.76*** (0.03)	-0.57*** (0.07)	0.06*** (0.004)	0.29*** (0.002)	0.76* (0.46)
Solvency ratio	0.008*** (0.003)	0.01 (0.01)	0.03*** (0.003)	0.08** (0.04)	0.03*** (0.004)	0.01*** (0.003)	0.18* (0.11)
Cash flow / Operating revenue	0.11*** (0.009)	0.55*** (0.01)	0.23*** (0.006)	0.41*** (0.02)	0.24*** (0.001)	0.63*** (0.002)	0.89*** (0.08)

Sargan test of over-identifying restrictions *H0: over-identifying restrictions are valid*	17.71 [0.99]	47.27 [0.30]	42.47 [0.49]	13.87 [1.00]	32.84 [0.87]	40.65 [0.57]	5.10 [1.00]
1st order autocorrelation *H0: no autocorrelation*	-1.32 [0.19]	-1.91 [0.05]	-3.34 [0.00]	-1.06 [0.29]	-1.85 [0.06]	-1.55 [0.12]	-0.38 [0.70]
2st order autocorrelation *H0: no autocorrelation*	-0.21 [0.83]	0.83 [0.41]	-1.50 [0.13]	1.10 [0.27]	0.74 [0.76]	-0.52 [0.60]	1.57 [0.12]
Observations	151	542	421	178	249	308	74

Notes: ***, **, and * represent statistical significance at 1%, 5%, and 10% level. Figures in () bracket represent robust errors; three lags of the dependent variables and a constant are included in all models but not reported here. All the models use lagged values of all endogenous regressors. In all models, the dependent variable is the *Return On Assets* – ROA ratio.

The sectors are defined based on NACE Rev. 2 codes: 1) *Agriculture, forestry and fishing* - codes from 01.11 to 09.90; 2) *Mining, quarrying and manufacturing* - codes from 10.11 to 33.20; 3) *Electricity, gas, steam and air conditioning supply; Water supply; sewerage, waste management and remediation activities, construction; Wholesale and retail trade; repair of motor vehicles and motorcycles*- codes from 35.11 to 47.99; 4) *Transportation Accommodation and food service activities, information and communication*- codes from 49.10 to 63.99; 5) *Financial and insurance activities; Real estate activities; Professional, scientific and technical activities* - codes from 64.11 to 75.10; 6) *Administrative and support service activities* - codes from 77.11 to 82.99 and 7) *Public administration and defence; compulsory social security; Education; Human health and social work activities; Arts, entertainment and recreation; Other service activities* - codes from 84.11 to 96.09.

The intangible-to-total assets ratio appears now to be statistic significant at 1% at with the "correct sign" only for *Financial and insurance activities; Real estate activities; Professional, scientific and technical activities* and, respectively, *Administrative and support service activities* sectors. For *Electricity, gas, steam and air conditioning supply; Water supply; sewerage, waste management and remediation activities, construction; Wholesale and retail trade; repair of motor vehicles and motorcycles* and *Transportation; Accommodation and food service activities; information and communication* sectors the ratio is significant but displays a "wrong" negative sign. For *Agriculture, forestry and fishing; Mining and quarrying* and *Manufacturing* sectors, the corresponding coefficients are positive but not statistically significant. One possible explanation for these puzzling results may be related to the fact that, as Table 5 suggests, the weight of intangibles exercise a weak or negative influence on ROA in the sectors that are characterized by lower profitability levels, compared to the whole market or in sectors characterized by "excess profitability". The relationship between intangible-to-total assets ratio and ROA appears to be stable, only in sectors which follow the overall market behavior.

Table no. 5

Sectors averages values of the standardized intangible-to-total assets ratio and ROA

Sector / Variable	Intangible-to-total assets ratio	ROA
Agriculture, forestry and fishing; Mining and quarrying	-0.14	0.34

Manufacturing	-0.05	0.19
Electricity, gas, steam and air conditioning supply; Water supply; sewerage, waste management and remediation activities, construction; Wholesale and retail trade; repair of motor vehicles and motorcycles	-0.07	0.13
Transportation Accommodation and food service activities, information and communication	0.06	0.14
Financial and insurance activities; Real estate activities; Professional, scientific and technical activities	0.02	0.05
Administrative and support service activities	0.01	-0.06
Public administration and defence; compulsory social security; Education; Human health and social work activities; Arts, entertainment and recreation; Other service activities	0.38	0.12

Another possible explanation may be that in sectors in which the evolution of profitability or, alternatively, the dynamics of intangibles, are characterized by frequent uncertainty there is as well a higher degree of uncertainty for intangibles' valuation (especially when the recognition is based on a *market approach* methodology). In addition, the structure of intangibles should be considered since it varies among sectors. For instance, it can be argued that in sectors in which assets such as trademarks, brands, non-compete agreements or in-progress research and development, patents, software, databases, and so on, have an important weight in total intangibles, there is a higher degree of uncertainty and a more pronounced sensitivity to market conditions compared to sectors in which the intangibles are mainly represented by customer contracts, order or production backlogs, licensing and franchise agreements, or supply agreements. Since the values of the latter are secured through formal mechanisms, they are less uncertain and more isolated from the market changes.

Robustness check

Several questions can be raised in respect to the robustness of the results. For instance, how sensitive are the empirical findings to a change in the estimation methodology? In order to evaluate this sensitivity, in Table 6 we employ several IV estimation techniques (*Fixed-effects - within - IV regression, First-differenced IV regression, EC2SLS random-effects IV regression*). In all these estimations, the intangible-to-total assets ratio is positive and significant at 1% related to ROA for the full sample. The estimated levels of intangibles' impact on profitability lie between 0.35-fold and 2.97-fold increase in ROA being larger than in the GMM-System estimation. The control variables are also positive and significant at 1% associated with ROA for all these three techniques. Thus, it can be concluded that the estimations are, at a certain level, sensitive to the methodology but, for the full sample, the statistical significance and the positive sign are preserved across various involved techniques.

Table no. 6

Intangible-to-total assets ratio and ROA (various estimation methodologies) (2001-2010)

	Fixed-effects (within) IV regression	*First-differenced IV regression*	*EC2SLS random-effects IV regression*
Intangible fixed assets / Total assets	1.38***	0.93***	0.30***
	(0.42)	(0.30)	(0.05)
Solvency ratio	0.20***	0.24***	0.06***

	(0.05)	(0.03)	(0.01)
Cash flow / Operating revenue	0.37***	0.42***	0.24***
	(0.02)	(0.02)	(0.01)
Chi-square (3)	606.11	1393.08	870.30
	[p=0.00]	[p=0.00]	[p=0.00]
Observations	3819	2998	3819

Notes: ***, **, and * represent statistical significance at 1%, 5%, and 10% level. Figures in () bracket represent robust errors; chi-square (3) test that the coefficients of the explanatory variables are jointly equal to zero. 4 digit number of the NACE Rev. 2 code(s),(e.g. Primary code : 7010 - *Activities of head offices*), Category of company (1- very large, 2- large, …), Current liabilities, Non-current liabilities, Current ratio, Liquidity ratio, Gearing and the fraction of managers having PhD studies are used as instrumental variables in all models.

Will these results change if other measures of profitability - instead of ROA - are used? Table 7 reports the re-estimated model with *Return on Capital Employed* – ROCE and *Gross Margin* as dependent variables instead of ROA.

Table no. 7

Intangible-to-total assets ratio and different measures of profitability (GMM-System estimation, full sample) (2001-2010)

Variable / Return measure	*Return On Capital Employed* - ROCE	*Gross Margin*
Intangible fixed assets / Total assets	0.12***	0.10***
	(0.04)	(0.02)
Solvency ratio	-0.04**	0.01
	(0.02)	(0.02)
Cash flow / Operating revenue	0.29***	0.11***
	(0.02)	(0.02)
Sargan test of over-identifying restrictions	71.31	45.15
H0: over-identifying restrictions are valid	[p=0.00]	[p=0.38]
1st order autocorrelation	-2.27	-4.19
H0: no autocorrelation	[p=0.03]	[p=0.00]
2st order autocorrelation	0.07	1.63
H0: no autocorrelation	[p=0.94]	[p=0.10]
Observations	3574	2243

Notes: ***, **, and * represent statistical significance at 1%, 5%, and 10% level. Figures in () bracket represent robust errors; three lags of the dependent variables and a constant are included in all models but not reported here. All the models use lagged values of all endogenous regressors.

The impact exercised by the intangibles remains positive and significant at 1% for the full sample with levels comparables with the ones obtained for ROA (a standard deviation shock in intangible-to-total assets ratio leads to a 0.13-fold increase in ROCE and, respectively, 0.11-fold increase in and *Gross Margin*). However, the solvency ratio is negatively correlated with ROCE (although at a 5% significance) and does not appear to influence the *Gross Margin*, while cash flow-to-operating revenue ratio is robustly positively related with these two measures of profitability and seems to exercise the largest influence.

Conclusions

The intangibles can be viewed as strategic assets since their inclusion in the structure of the total assets allows companies to extract a "competiveness rent" and, thus, to enhance the outcomes of their activity. This paper seeks to examine some empirical evidence for the effects exercised by shocks emerged at the level of intangible-to-total assets ratio on profitability of 562 large companies listed on Frankfurt Stock Exchange and on the London Stock Exchange.

We found that, for the full sample, there is a relatively steady relationship between this ratio and various measures of profitability. However, when the two markets as whole or different sectors are considered, there seem to be various significant structural differences and some scale effects in the transmission of the intangibles' impact on profitability.

From the control variables, cash flow-to-operating revenue ratio appears to be the most robust, whereas the effects of solvability ratio are less stable and vary across markets and sectors.

Perhaps the most important policy implication of such findings is to point out the importance of intangibles, both from a functional point of view - concerning the required sustainable R&D expenditures that should be assumed by the European companies – and from a financial reporting perspective – concerning the necessity for such assets of proper accounting treatment, recognition and valuation criteria.

Even if there are inherent research limits, the present paper attempts to provide a broader empirical evidence to support the thesis of the critical role played by the intangibles in supporting the microeconomic foundations of the long-run economic growth.

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