THE EURO AND CORPORATE VALUATIONS: THE CASE OF GREECE

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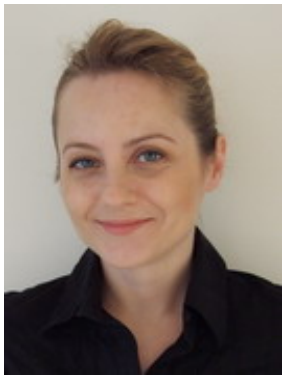
Rezumat



Această lucrare investighează impactul euro asupra evaluării companiilor în Grecia. Rezultate empirice anterioare pentru cele zece țări care au format Uniunea Economică şi Monetară (UEM) au arătat existența unor efecte pozitive ale monedei unice. Se aşteaptă ca Grecia, care a aderat mai târziu la UEM şi care avea un fundal macroeconomic mai slab, să beneficieze substanțial de integrarea într-o uniune monetară. Rezultatele noastre arată un impact mai puternic al euro pentru Grecia, decât pentru statele membre fondatoare ale UEM. Moneda unică a dus la creşterea cu 24% a coeficientului Tobin q pentru companiile greceşti, iar rata investițiilor a crescut cu 21%. Valul de investiții a fost finanțat în primul rând prin emisiuni de acțiuni.

Abstract

This paper investigates the impact of the euro on corporate

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valuations in Greece. Previous empirical results for the ten countries that founded the Monetary Union (EMU) uncovered various positive effects of the common currency. Greece who joined EMU later, coming from a weaker macroeconomic background is expected to benefit substantially from the strong commitment of being part of a currency union. Our results show comparably stronger impact of the euro for Greece than for the founding members of EMU. The common currency has brought a 24% increase in Tobin's q for Greek companies and the investment ratio has increased by 21%. The wave of investment was primarily financed by equity issues.

Keywords: European Integration, Euro, Corporate Valuations

JEL classification: F33, F36, G32

1 Introduction

The European financial market has undergone a remarkable transformation with the introduction of the euro. Unquestionably, the new currency has brought fundamental changes for the European capital markets and it is an empirical question whether the impact on corporations was overall positive or negative. The euro affects corporate valuations, investments as well as the financing choices of the corporations (Bris et al., 2003). The common currency can affect a firm value either through cost of capital or expected cash flows. Bris et al. (2004) found in a study conducted on the ten countries that joined the EMU that corporate valuations increased especially for weak EMU countries (who had experienced a depreciation in their domestic currencies before joining the EMU), and additionally that the effect is stronger for large companies.

This paper tests several hypotheses regarding the impact of the common currency on corporate valuations. Specifically, we expect that membership in the EMU would raise valuations of companies, as measured by Tobin's q. Moreover, Greek companies taking into account the improved opportunities are expected to increase their investment. In view of the pecking order theory, it is important to investigate the choice of Greek companies as financing sources of the new investments.

The results suggest that Greek companies have benefited more than their peers (founding members of EMU) and their valuations increased on average by 24.77%. We also find evidence of increased

investment activity. Due to high previous indebtedness, their preferred choice of financing is equity issuance.

The remainder of this paper is structured as follows. Section 2 gives a brief review on the theoretical models and empirical results on corporate valuations and the expected impact of the common currency. Section 3 introduces our main methodological choices and dataset. Section 4 reports empirical evidence from testing several hypotheses regarding the impact of the euro on Greek corporate valuations. Section 5 confirms our results through several robustness checks. Finally, Section 6 summarizes our main findings.

2 Theoretical Framework and Hypothesis

2.1 Tobin's q, Investment and Corporate Valuation

The q theory of investment (see Romer, 2000) starts from the interaction of households that save and firms that invest. The results of this process are important, as the share of output that it is invested influences the long run standards of living and its volatility, the short run economic fluctuations. The theory considers the profit maximization problem of the firm in the presence of adjustment costs:

$$\max \prod = \int_{t=0}^{\infty} e^{-rt} \left[\pi(K_t) - I_t - C(I_t)\right] dt, \qquad (1)$$

s.t. $k_{t+1}=k_t+I_t$, where K is the industry-wide capital stock, k the own capital stock, I the cost of investment object, C(I) the adjustment cost of investment and π(K) the marginal revenue product of capital.

Deriving the first order conditions with respect to I_t leads to $1+ C'(I_t)= q_t$, where q_t is defined as $q_t = (1+ r)^t \lambda_t$, i.e. the present value of the Lagrange multiplier or the value to the firm of an additional unit of capital at time t + 1 in time t money.

The model results in:

$$q(t) = \int_{\tau=t}^{\infty} e^{-r(\tau-t)} \pi(K(\tau)) d\tau, \qquad (2)$$

describing q, the value of a unit of capital at a given time, as the discounted value of its future marginal revenue products. In this equation, q shows the process by which an additional monetary unit invested in capital is reflected in the present value of profits.

Increasing the capital stock by one unit, the firm increases the present value of the profits by q, which can be interpreted as the market value of a unit of capital. A high q induces investment, whereas a low q has the opposite effect. As the price of capital has been normalized to one in the model, q can also be interpreted as the ratio of the market value of a unit of capital to its replacement cost, also known as Tobin's q. The empirical downside of the model is that the derived q is the marginal q (the ratio of the market value of a marginal unit of capital to its replacement cost), whereas the average q (the ratio of total value of the firm to the replacement cost of its total capital stock) is easier to measure. In a model based on the assumption of diminishing returns to scale in adjustment costs (as the one summarized above), the marginal q is lower than the average q. In a world of constant returns to adjustment costs, they would be equal. There are even instances when the marginal q is higher than the average q, such as the case when the firm owns a large amount of outdated capital.

2.2 Monetary Integration and Corporate Valuations

According to the general-equilibrium theory, if asset markets are complete, risk averse individuals can fully insure against consumption fluctuations across countries. In practice, however, asset markets are not complete and the risk cannot be completely hedged, and therefore the exchange rate regime may matter. Consequently, the gains from proper risk-sharing through a common currency should show up as a net reduction in risk premia on interest rates for the system as a whole (Karlinger, 2002). In a currency union, agents can diversify their portfolios internationally and can obtain decentralized insurance against asymmetric shocks to their income. By eliminating exchange risk and increasing transparency, EMU is thought to contribute to financial market integration in Europe, thereby enhancing growth by encouraging (better quality) investments. Danthine et al. (2001) distinguish between direct and indirect effects of the euro on capital markets. Direct effects include the standardization and transparency in pricing, the shrinking of the foreign exchange market, the elimination of currency risk, the elimination of currency related investment regulations and the homogenization of bank refinancing procedures. These direct effects induce additional indirect effects, such as the cost of cross-country

transactions within the EMU area, liquidity of European financial markets, the improvement of diversification opportunities available to European investors and the impact of institutional changes caused by the EMU on the banking sector. With the expansion of the market for corporate bonds, corporate euro bond issues have even exceeded that of the dollar market in 1999, and equity issues increased enormously, which are all indications of a decrease in cost of capital.

Bris et al. (2004) documented significant increases in corporate valuations and investment related to the introduction of the euro for the ten founding members of EMU. They studied how the euro has affected corporations' Tobin's q for the period 1995-2000 and found that Tobin's q for firms in the EMU countries who experienced a currency crises before adopting the euro increased by 16.7% between the years 1998 and 2000. Half of the increase in corporate valuations for these countries is due to changes in interest rates and half is related to changes in risk premia. In addition, the increase in valuation is higher for firms in weak currency countries, firms previously exposed to currency risks and for the least financially constrained firms. Bris et al. (2003) also showed a significant increase in the valuations for large firms in the original EMU countries. According to the Tobin's q theory of investment, valuation effects should be reflected into real effects by increases in investments. The results of Bris et al. (2003) indicate a significant increase in investments for EMU countries which have been financed mostly with debt.

2.3 Hypotheses

H1. The common currency determines higher corporate valuations. The relation is expected to be stronger for Greece, as a country that has experienced exchange rate instability.

The main hypothesis is that EMU membership liberated Greek companies from the risk of unstable exchange rates and thus contributed to a reduction in their currency risk premia, and ultimately to an increase in their value.

Bris et al. (2004) found that the weaker countries (defined as the countries that underwent a crisis/significant currency depreciations in the European Monetary System prior to the introduction of the Euro,

such as Finland, Ireland, Italy, Portugal and Spain), benefit more from the fact that the currency risk was wiped out by the euro. Greece struggled in the last years with the results of public sector inefficiency and excessive government spending. In 1992, Greek government debt exceeded the country's GDP and in 1995, it reached 120% of GDP (129 billion USD). In May 1994, the Bank of Greece managed to contain a currency crisis which had been generated by the liberalization of short term capital movements. Further speculative attacks on the drachma, were answered by tighter monetary policy and higher interest rates (that for a few days reached 180%). Following the Asian financial crisis, in the fall of 1997, Greek authorities were confronted with another wave of speculation. With such a restless financial history, we expect Greece to be a great beneficiary in terms of vanishing currency risk, from the introduction of the euro.

H2. The companies increase their investments as a response to the introduction of the euro.

As described above, the q theory of investment predicts that a high value for the Tobin's q indicates that investments are profit increasing, so we expect the companies in our sample whose Tobin's q increased, to invest more in order to materialize the advantages brought about by the common currency.

H3. The new currency changes the leverage strategies of the corporations.

In the absence of currency risks, the companies having reached a lower risk status could afford higher leverage. However, companies that benefited from depreciation of the drachma, which artificially boosted their competitiveness, do not gain from the introduction of the euro, and in this case are not expected to change their capital structure as a consequence of the common currency.

H4. Large firms benefit more than small firms from the vanishing currency risk.

Large firms that are more strongly affected by currency premia are expected to enjoy a stronger positive effect of the introduction of the common currency on their valuation.

3 Methodological Choices and Data

3.1 Benchmark Year

We consider the year 1999 as the benchmark year for the introduction of the euro. Since the European Council Decision of 3 May 1998, when the performance of Greece in fulfilling the convergence criteria was considered unsatisfactory, the drachma has been undergoing significant positive developments. At the end of that year, the drachma was included in the Exchange Rate Mechanism at a rate adjusted downwards of 353.109 drs/euro. During the entire 1999, the drachma had already converged towards the stable exchange rate of 340.750 drs/euro (already reached by the start of 2000) that three months later was proposed as the fixed conversion rate of drachma to the euro. In March 2000, the Greek government requested locking the exchange rate at this value and on 3rd May 2000, in its Convergence Report 2000, the European Commission agreed that Greece satisfied the necessary requirements and recommended its inclusion in the monetary union. On 19th -20th June 2000 at the meeting of the European Council in Feira (Portugal), the final decision was made in this respect. In view of the above and since we use yearly variables, we conjecture that forward looking markets would have reacted to this news as early as 1999. However, we check the robustness of our results also by allowing for a later benchmark year in the introduction of the euro.

3.2 Definition of Tobin's q

Tobin's q is computed following Bris et al. (2003) and Bris et al. (2004), as:

$$q = \frac{BV(TA) - BV(CEq.) + MV(CEq.)}{BV(TA)}, \qquad (3)$$

where BV (TA) is the book value of total assets, BV (CEq.) is the book value of common equity, MV (CEq.) is the market value of

common equity (number of shares outstanding multiplied by stock price).

3.3 Data and Main Variables

We include in our sample 76 Greek companies from the Datastream database, whose performance is followed from 1995 to 2003. Since we are interested in the way the introduction of the euro influenced the valuation of these company, we observe only companies that existed in 1995. The companies are selected based on the availability of stock market and accounting data for the entire period considered. We note that the number of companies per country in our sample is exceeded by only three EU countries in the study by Bris et al. (2003), Germany and UK with several hundreds companies and Sweden (77 companies).

The data comprises accounting data: Earnings before Interest, Tax, Depreciation and Amortization (EBITDA) (Datastream code 1502), Total Assets, the sum of tangible fixed assets, intangible assets, investments (including associates), other assets, total stocks and work in progress, total debtors and equivalent and cash and cash equivalents (Datastream code 392),Equity Capital and Reserves, the equity share capital and reserves of the company excluding preference capital (Datastream code 305), Total Debt, the total of all long and short term borrowings, including any subordinate debt and 'debt like' hybrid finance instruments (Datastream code 1301) Total Fixed Assets -Net, the net total (after deducting accumulated depreciation) of land and buildings, plant and machinery, construction in progress and other fixed assets, excluding assets leased out (Datastream code 339), Total Sales, the amount of sales of goods and services to third parties relating to the normal industrial activities of the company (Datastream code 104) and stock and macroeconomic data: Stock Price, the previous day's closing price from the default exchange, expressed as a percentage of its value on the base date, adjusted for capital changes, Number of Shares, the total number of ordinary shares that represent the capital of the company, Exchange Rate of the Drachma (respectively the Euro after 2001) to the USD, the number of units of local currency to one USD and Stock Market Index, the total market Datastream index for companies traded at the Athens Stock Exchange.

A quick glance at the descriptive statistics of the main variables in our analysis, Tobin's q, sales (S), EBITDA/Total Assets(TA) and T

angible Assets(TgA)/T otal Assets for the companies in our sample (see Table 1) shows significant changes took place over the period 1995-2003. In 1999, the average Tobin's q reached 2.21 increasing by 140% over the previous year and by 115% since the beginning of the period) and in 2000, it reached an extreme value of 6.79 (a 307% increase over 1999 and 355% over 1955). With respect to the other three main variables, we note that the sales are one a steady increasing trend, while the ratio of tangible assets to total assets varies considerably with a sample period low point in 2000, followed by a sharp increase in subsequent years. The ratio of EBIT DA to total assets shows a marked reaction to the recession during 2001, falling steeply from a peek in 1999. A cross-sectional investigation reveals that Tobin's q increases in 2000 over 1999 for 75 out of the 76 companies in our sample.

4. Empirical Results

The first hypothesis investigates the impact of the euro on Tobin's q based on the following fixed effects panel data model:

$$\log(q)_{it} = \alpha_{it} + \beta I(EMU)_t + \gamma \log(S)_{it} + \delta\left(\frac{EBITDA}{TA}\right)_{it} + \\ + \eta\left(\frac{TgA}{TA}\right)_{it} + \varphi SR_t + \lambda GGDP_t + \varepsilon_{it} \quad (4)$$

where the dependent variable is the logarithm of Tobin's q, I(EMU) is a dummy variable that takes the value 1 for the years after our benchmark and 0 before and the control variables are: size, proxied by logarithm of sales (S), profitability, proxied by the ratio of EBIT DA to total assets (TA), agency costs/ (lack of) growth opportunities, proxied by the ratio of fixed tangible assets to total assets[1], domestic stock market returns (SR) and GDP growth (GGDP) to control for business cycle influences.

[1]*There are two possible interpretations given to this variable. One relates it to the agency costs, as the larger this ratio is, the easier it is to monitor the firm, and thus the agency costs are reduced. The alternative interpretation relates it to the investment opportunities of the firm, as the higher the ratio is, the more probable it is the firm is near to the optimal value of investment.*

Table 2 shows primarily that the euro has a positive and significant influence, leading to an increase in the valuation of 24.77%. For comparison purposes, the values found by Bris et al. (2003) are 13.3% for weak EMU countries and 3.4% for strong EMU countries. Our results therefore confirm the first hypothesis, that Greece, with its recently troubled macroeconomic past, benefits substantially and comparatively more than the founding members of EMU from being part of the currency union. Moreover, the logarithm of sales, a proxy for the size of the companies, has a negative and significant sign, suggesting that a large firm with presumably less growth opportunities has a lower valuation. The ratio of EBIT DA to total assets, as a measure of profitability has a large coefficient, positive and highly significant, as the profitability of a company is a strong driver of a high valuation. The ratio of tangible assets to total assets has a significant negative sign. In this case the interpretation of the ratio as a proxy for (the lack of) growth opportunities appears more appropriate than the interpretation related to agency costs. The stock market returns and the GDP growth are positively and significantly correlated with the valuation of companies, as expected.

The second hypothesis investigates whether the increase in Tobin's q has led to increased investment. We calculate investment ratios as:

$$\frac{E_t - E_{t-1}}{A_{t-1}} = \frac{A_t - A_{t-1}}{A_{t-1}} - \frac{D_t - D_{t-1}}{A_{t-1}}, \qquad (5)$$

where E_t, E_{t-1} are the current and lagged values of equity, A_t, A_{t-1} are the current and lagged values of assets and Dt, Dt−1 are the current and lagged values of debt. Table 3 shows that on the average investment ratios are positive, with a substantial increase (quadruple) in 2000 over 1999.

Following Bris et al. (2003) we estimate a fixed effects model, to test the effects of the common currency on investment ratios, controlling by investment opportunities, proxied by the lagged Tobin's q, cash flows, measured by the lagged value of the ratio of EBIT DA to total assets as well as business cycle phase, proxied by the lagged value of GDP growth, as follows:

$$\frac{E_t - E_{t-1}}{A_{t-1}} = \alpha_i + \beta I(EMU)_t + \phi q_{it-1} + \gamma\left(\frac{EBITDA}{TA}\right)_{IT-1} \delta GGDP_{t-1} + \varepsilon_{it} \quad (6)$$

The results (Table 4) support the hypothesis that investment increased in the euro period, by 21.90%. Also, a one percent increase in Tobin's q leads to a 4.7% increase the investment ratio.

The third hypothesis regards the changes in the capital structure of the companies. The most probable channel by which the euro has contributed to the previously documented wave of investments is decreasing the cost of capital, both the cost of equity and the cost of debt. If the euro, instrumental in elimination of the currency risks, has led to a reduction in the risk of the companies, it might increase the capacity of the companies to issue debt. In this case, we could observe a higher reliance on debt for the Greek companies in the post-euro period. However, descriptive statistics (Table 5) show no significant changes in the debt ratio of Greek companies for the period considered. Moreover, the increase in equity issuance from 1999 to 2000 significantly exceeds that of the debt issuance. A cross-sectional analysis shows that while most companies resort to equity issues in 2000 compared to 1999, their strategies related to debt issuance do not share a common pattern. In terms of the changes expected from the common currency, this suggests that not all companies benefit from the (currency) risk decrease. Possibly less competitive (export) companies that artificially benefited from the devaluation of the drachma might find that their position has become more vulnerable with the introduction of the common currency.

Further we investigate fixed effects models for the net debt issuance (defined as the difference between the total debt in the current period and its lagged value, divided by the lagged value of total assets) and respectively net equity issuance (defined as the difference between the common equity in the current period and its lagged value, divided by the lagged value of total assets). The control variables are investment opportunities, proxied by the lagged Tobin's q, the ability to issue collateral, proxied by the lagged ratio of tangible assets to total assets, which would render a company more favourable to issuing debt over equity, profitability, measured by the lagged value of the ratio of EBIT DA to total assets, business cycle phase, proxied by the lagged value of GDP growth, past indebtedness, given by the lagged value of total debt over total assets

as well as past returns, given by the lagged stock market returns. The two models are:

$$ND_{it} = \alpha_i + \beta I(EMU)_t + \gamma q_{it-1} + \delta\left(\frac{EBITDA}{TA}\right)_{it-1} + \eta\left(\frac{TD}{TA}\right)_{it-1} + \\ + \phi SR_{t-1} + \lambda GGDP_{t-1} + \varepsilon_{it} \quad (7)$$

and

$$NEq_{it} = \alpha_i + \beta I(EMU)_t + \gamma q_{it-1} + \delta\left(\frac{EBITDA}{TA}\right)_{it-1} + \eta\left(\frac{TD}{TA}\right)_{it-1} + \\ + \phi SR_{t-1} + \lambda GGDP_{t-1} + \varepsilon_{it} \quad (8)$$

Table 6 shows that the euro has certain positive influence on both net debt issuance and net equity issuance, albeit for the former, the significance is marginal (the p−value is 12%), and the increase in debt issuance is only 3%. The influence of companies with higher valuation, is also positive and highly significant in both models, however pointing to a stronger relationship in the case of the equity issuance. Profitability appears influential and statistically significant at 10% only for equity issue. High past indebtedness hinders new debt issuance in a strong way, to an extent that may explain the reluctance of the Greek companies to resort to higher debt to equity ratios in the euro period. In conclusion, the third hypothesis is not supported by Greek data.

The fourth hypothesis investigates the differential impact of the common currency depending on the size of the company. We take sales as a proxy for size and we compare the evolution of the sales of each company with the cross-sectional average in each of the nine of the years in our period of analysis. We note that 26 companies are systematically below the median, 19 are always part of the “large size” category, and the rest 31, “jump ranks”, being for some years in the first half and for the rest in the second half. We decide upon the final allocation of these companies by the majority of years that they have been in a certain category. Thus our final division contains 39 small size companies and 37 large size companies.

The proposed models are re-estimated on the two subsamples,

divided according to size. The results (see Table 7) show that for the large size sample, when the dependent variable is Tobin's q, the coefficient of the euro dummy is statistically significant and positive as well as higher in level than in the small size sample, where the coefficient is positive but insignificant at 10%, which supports the hypothesis that large companies benefit more from the common currency. The situation is reversed for the models explaining investment ratios, where the impact of the common currency is strong and statistically significant only for the small companies sample. A stronger response from the small companies is found also when modeling the increase in net equity issuances. Neither the small or large companies significantly raise their debt in response to the common currency. In both subsample, the high levels of previous indebtness appear to be the deterrents.

5. Robustness Checks

All the models are re-estimated including the exchange rate for the subsamples of large and small companies. The results (not reported)[2] are not altered by this control. The coefficients of the euro impact on Tobin's q for the large sample are comparable (31.7% when the exchange rate is included vs. 38.9% before). The same pattern as before (no significant effect) is observed for the small companies sample. The impact of the euro on investment ratios appears enhanced in both subsamples when controlling for the exchange rate. The relevant coefficients are 27.9% for large companies and 57.2% for the small companies. They are both highly significant in economic and statistical terms and improve greatly compared to previous estimations. The same qualitative implications are maintained for the models explaining net debt issue and net equity issue and in quantitative terms, the results point towards a stronger effect of the euro on net equity issuance (coeffcients almost double), for both samples.

The previous section showed that Greek companies benefited from membership in the EMU comparably more than the companies in the ten founding members. In this section, we perform several

[2] *Detailed estimation results for the size subsamples are available from the authors upon request.*

robustness checks for our results. The first one is to test whether the results are driven actually by the fact that the euro underwent a strong depreciation with respect to the USD or by the exposure of Greek firms to the USD to the extent of their non-EU business. We introduce the exchange rate of the drachma to the USD, defined as the change in the exchange rate over the base year 1995, as a control in all our regression models. Table 8 shows that the exchange rate matters, economically and statistically for all models. However, the main variables maintain their significance and roughly the same values. The most important result, the impact of the euro on corporate valuation is preserved qualitatively and quantitatively. Membership to EMU leads to an increase in Tobin's q of 15.2%, when controlling for the exchange rate, a higher impact compared to the results of Bris et al. (2003) for other weak EMU countries. With respect to the second hypothesis, modeling the investment ratio in the presence of the exchange rate, uncovers an even stronger effect of the euro, 56% compared to 21.9% obtained before. In the presence of the exchange rate, there is again no evidence that the euro had any significant impact on net debt issuance, while all results suggest that the new investments have been financed by issuing equity.

The second robustness check is to choose an event window consisting of the year prior to the introduction of the euro and the first year of EMU membership for Greece, 2000 and 2001, and investigate whether corporate valuations change significantly during this period. All hypotheses are checked again, replacing the I(EMU) variable with a dummy variable that takes the value 1 for the two years, 2000 and 2001. Table 9 reconfirms all the previous findings and shows that the impact of the euro occurs mostly over this event window, suggested by the larger point estimates, highly statistically significant and the better fit of the models.

The final robustness check is to present an alternative way of modeling the size variable, by creating cross-sectional dummy variables which take the value 1 for the year in which the respective company had sales larger than the median. Table 10 presents a summary of results obtained by interacting the euro dummy variable with the cross-sectional size dummy variable. We note several patterns. First, the interaction term is seldom significant (only in the model with a two year event window) and it is consistently negative. Thus, size does not appear to significantly mediate the relationship between the euro and corporate valuations, investment ratios and

funding strategies. In conclusion, we find little evidence that size is an important company characteristic when it comes to benefiting from the common currency. However, the main hypothesis, that the euro is good news for Greek corporation and that it results in higher investment, mainly financed by equity issues receives final confirmation.

6. Concluding Remarks

We test several hypotheses regarding the impact of the introduction of the common currency on a sample of 76 Greek companies, in a comparative manner with the empirical evidence available for the ten countries that have entered the EMU two years earlier. The main hypothesis is that the introduction of the euro leads to increased corporate valuations measured by Tobin's q. Evidence is robustly supporting this hypothesis. Moreover, we find that companies reacted to the increased valuations by investing more and that, possibly due to existing high levels of leverage, the preferred source of funding is equity issues. Greece differs in this from the original EMU members, whose companies increased their leverage to fund the new investments. Another difference is related to the size effects, where in the case of Greece we find only mixed evidence of possibly greater benefits for large companies.

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Table 1: Summary Statistics -Main Variables

This table reports summary statistics (full sample as well as time-series specific mean, median and standard deviation) for Tobin's q, sales (in thousands euros), EBITDA/Total Assets, Tangible Assets(TgA)/T otal Assets(TA) for 76 Greek companies for the period 1995-2003. Data is taken from Datastream.

	Tobin's q			Sales			EBITDA/TA			TgA/TA		
	Mean	Med	StD	Mean	Med	StD	Mean	Med	StD	Mean	Med	StD
1995	1.91	1.54	1.24	55.60	26.34	86.20	0.17	0.17	0.09	0.28	0.28	0.16
1996	1.69	1.54	0.82	63.90	31.70	90.70	0.15	0.17	0.11	0.29	0.28	0.17
1997	1.37	1.22	0.60	91.80	39.30	239.10	0.14	0.14	0.09	0.33	0.31	0.18
1998	1.57	1.25	1.34	110.10	42.10	291.60	0.15	0.13	0.09	0.31	0.28	0.17
1999	2.21	1.63	1.77	141.10	52.90	862.80	0.15	0.15	0.09	0.31	0.30	0.17
2000	6.79	4.53	10.44	172.70	62.10	907.90	0.14	0.12	0.09	0.27	0.26	0.16
2001	1.94	1.58	1.49	219.00	80.01	239.10	0.11	0.10	0.07	0.28	0.28	0.16
2002	1.50	1.35	0.60	282.60	111.40	291.60	0.10	0.09	0.07	0.31	0.31	0.19
2003	1.12	1.00	0.38	464.70	182.20	862.80	0.11	0.11	0.1	0.33	0.31	0.2
Full sample	2.28	1.50	4.02	162.46	54.31	432.71	0.14	0.13	0.09	0.30	0.29	0.17

Table 2: The Impact of the Euro on Tobin's q

This table reports the results of fixed panel regressions of the logarithm of Tobin's q on a dummy variable taking the value 1 after the benchmark year and the following control variables: sales S, the ratio of EBIT DA to total assets (TA), the ratio of tangible assets (TgA) to total assets (TA), stock market returns (SR) and GDP growth (GGDP). The sample contains 76 companies in the sample and 729 yearly observations. Data is taken from Datastream. Significance is denoted by *** (at 1%), ** (at 5%) and * (at 10%).

Variable	I(EMU)	S	EBITDA/TA	TgA/TA	SR	GGDP
Coef.	0.2477***	-0.3071***	2.7860***	-0.6640***	0.0005***	0.0087***
Std. Err.	0.0754	0.0369	0.2952	0.2306	9.05E-05	0.0012
Adj R^2	0.48					

Table 3: Summary Statistics Investment Ratio

This table reports summary statistics (full sample as well as time-series specific) mean, median and standard deviation) for investment ratio. Data is taken from Datastream.

Investment Ratio			
	Mean	Median	St. Dev.
1996	0.158	0.101	0.240
1997	0.172	0.092	0.228
1998	0.153	0.088	0.435
1999	0.195	0.116	0.326
2000	0.853	0.428	1.825
2001	0.374	0.137	0.862
2002	0.052	0.011	0.255
2003	0.003	-0.003	0.153
Full Sample	0.26	0.09	0.81

Table 4: The Impact of the Euro on the Investment Ratio

This table reports the results of fixed effects panel regressions of the investment ratio on a dummy variable taking the value 1 after the benchmark year and the lagged values of the following control variables: Tobin's q, the ratio of EBITDA to total assets and GDP growth. The sample contains 76 companies and 558 yearly observations. Significance is denoted by *** (at 1%), ** (at 5%) and * (at 10%).

Variable	I(EMU)	TOBIN's q (-1)	EBITDA/TA (-1)	GDP GROWTH (-1)
Coeffcient	0.2190***	0.0473***	1.5425***	0.0022**
Standard Errors	0.0754	0.0095	0.5659	0.0009
Adj $R2^2$	0.10			

Table 5: Summary Statistics -Debt Ratio, Net Debt Issue and Net Equity Issue

This table reports summary statistics (full sample as well as time-series specific mean, median and standard deviation) for debt ratio, net debt issue and net equity issue for 76 Greek companies for the period 1995-2003. Data is taken from Datastream.

	Debt Ratio			Net Debt Issue			Net Equity Issue		
	Mean	Median	St. Dev.	Mean	Median	St. Dev.	Mean	Median	St. Dev.
1995	0.18	0.15	0.17						
1996	0.20	0.15	0.20	0.08	0.01	0.27	0.07	0.04	0.17
1997	0.18	0.14	0.17	0.02	0.00	0.16	0.09	0.06	0.14
1998	0.21	0.18	0.17	0.08	0.03	0.15	0.09	0.03	0.15
1999	0.22	0.20	0.15	0.05	0.02	0.14	0.11	0.04	0.24
2000	0.19	0.19	0.15	0.10	0.03	0.30	0.64	0.29	1.76
2001	0.20	0.23	0.14	0.17	0.06	0.49	0.20	0.04	0.59
2002	0.24	0.27	0.17	0.07	0.04	0.15	0.01	0.00	0.20
2003	0.27	0.30	0.17	0.03	0.00	0.10	-0.01	0.00	0.07
Full Sample	0.21	0.19	0.17	0.08	0.02	0.26	0.16	0.03	0.72

Table 6: The Impact of the Euro on Net Debt Issue and Net Equity Issue

This table reports the results of fixed panel regressions of net debt issuance and respectively, net equity issuance on a dummy variable

taking the value 1 after the benchmark year and the lagged values of the lagged values of the following control variables: Tobin's q, the ratio of EBIT DA to total assets, the ratio of total debt to total assets, GDP growth and stock market returns. The sample contains 76 companies and 569 yearly observations. Significance is denoted by *** (at 1%), ** (at 5%) and * (at 10%).

	NET DEBT ISSUE		NET EQUITY ISSUE	
	Coeff.	Std. Err.	Coeff.	Std. Err.
I(EMU)	0.03	0.03	0.30***	0.08
TOBINS Q(-1)	0.03***	0.00	0.04***	0.01
EBITDA/TOTAL ASSETS (-1)	-0.10	0.16	0.88*	0.52
TOTAL DEBT/ TOTAL ASSETS(-1)	-0.66***	0.10	-0.03	0.31
GDP GROWTH (-1)	-0.00*	0.00	-0.00	0.00
STOCK MARKET RETURNS(-1)	-0.00*	0.00	-0.00**	0.00
Adj R^2	0.34	0.08		

Table 7: The Euro and Corporate Valuations: Small vs. Large Companies

This table reports the split sample (small and large companies) results of thefixed panel regressions reported for the full sample in Tables 2, 4 and 6. Thesmall size sample contains 37 companies and 284 yearly observations and the large size sample contains 39 companies and 315 yearly observations.Significanceis denoted by *** (at 1%), ** (at 5%) and * (at 10%).

Dep. Var.	Log(Tobin's q)					Investment Ratio					Net Debt Issue				Net Equity Issue			
	Large		Small			Large		Small			Large		Small		Large		Small	
	Cf.	S.e.	Cf.	S.e.		Cf.	S.e.	Cf.	S.e.		Cf.	S.e.	Cf.	S.e.	Cf.	S.e.	Cf.	S.e.
I(EMU)	0.40***	0.09	0.15	0.11	I(EMU)	0.04	0.06	0.25***	0.07	I(EMU)	0.09	0.09	0.05	0.04	0.11***	0.04	0.49**	0.16
S	-0.47***	0.00	-0.28***	0.05	q(-1)	0.05**	0.02	0.00	0.01	q(-1)	0.01***	0.01	0.04***	0.00	0.04***	0.01	0.04***	0.01
EBITDA/TA	2.17***	0.16	3.06***	0.41	EBITDA/TA(-1)	1.19***	0.45	1.35**	0.53	EBITDA/TA(-1)	-0.05	0.22	-0.14	0.22	0.05	0.26	1.50	0.97
TgA/TA	-0.44*	0.10	-0.86**	0.40	GCDP(-1)	0.00	0.00	0.00**	0.00	TD/TA(-1)	-0.94***	0.12	-0.41***	0.14	0.20	0.14	-0.36	0.69
SR	0.00***	0.00	0.00***	0.00						GCDP(-1)	-0.00	0.00	-0.00*	0.00	-0.00**	0.00	-0.00	0.00
GCDP	0.01***	0.00	0.01***	0.01						SR(-1)	-0.00	0.00	-0.00*	0.00	-0.00***	0.00	-0.00	0.00
Adj R^2	0.46		0.51		Adj R^2	0.09		0.09		Adj R^2	0.23				0.11			

This table reports results of the fixed e□ects panel regressions reported in Tables 2 (76 companies and 629 observations), 4 (76 companies and 558 observations) and 6 (76 companies and 629 observations) adding the exchange rate as a control variable. Significance is denoted by *** (at 1%), ** (at 5%) and * (at 10%).

	Tobin's q			Investment Ratio			Net Debt Issue		Net Equity Issue	
	Coeff.	Std. Err.		Coeff.	Std. Err.		Coeff.	Std. Err.	Coeff.	Std. Err.
I(EMU)	0.15**	0.07	I(EMU)	0.56***	0.12	I(EMU)	-0.00	0.04	0.49***	0.12
S	-0.25**	0.09	Tobin's q(-1)	0.05***	0.10	Tobin's q(-1)	0.04***	0.00	0.04***	0.01
EBITDA/TA	2.56***	0.27	EBITDA/TA(-1)	0.95*	0.58	EBITDA/TA(-1)	-0.09	0.16	0.89	0.58
TgA/TA	-0.49**	0.21	GGDP(-1)	-0.00	0.00	TD/TA(-1)	-0.68***	0.10	0.04	0.32
SR	0.00***	0.00	ER	-1.88**	0.95	GGDP(-1)	-0.00**	0.00	0.00	0.00
GGDP	0.02***	0.00				SR(-1)	-0.00**	0.00	0.00	0.00
ER	-3.10***	0.90				ER	0.98**	0.22	-1.75**	0.77
Adj R^2			Adj R^2	0.12		Adj R^2	0.95		0.09	

Table 9: The Euro and Corporate Valuations: Event Window 2000-2001

This table reports the results of fixed e□ects panel regressions reported for the models reported in Tables 2, 4 and 6, where the event window is changed to the years 2000 and 2001. The estimations are conducted on the full samples as well as the two subsamples: small size companies and large size companies. Significance is denoted by *** (at 1%), ** (at 5%) and * (at 10%).

DEPENDENT	SAMPLE	COEFFICIENT	p−value	Adj R^2
VARIABLE		EURO 2000-2001		
Log(Tobins Q)	Full	1.12***	0.00	0.73
	Large	1.08***	0.00	0.69
	Small	1.12***	0.00	0.77
Investment Ratio	Full	0.39***	0	0.12
	Large	0.23***	0.00	0.14
	Small	0.57***	0.00	0.24
Net Debt Issue	Full	0.02	0.40	0.35
	Large	0.01	0.61	0.23
	Small	0.05	0.20	0.42
Net Equity Issue	Full	0.46***	0.00	0.12
	Large	0.19***	0.00	0.16
	Small	0.84***	0.00	0.13

Table 10: The Euro and Corporate Valuations: An Alternative Size Variable

This table reports the results of the fixed effects panel regressions reported for the models reported in Tables 2, 4 and 6, with an added interaction term between the euro dummy variable (after the benchmark year and respectively also for the 2000-2001 event window) and a size dummy variable (taken the values 1 for all the years that the company's size was higher than average). Significance is denoted by *** (at 1%), ** (at 5%) and * (at 10%).

DEPENDENT VARIABLE	EURO DUMMY	COEFF. EURO	$p-$value	COEFF. EURO*SIZE	$p-$value	Adj. R^2
Log(Tobin Q)	Post1998	0.18**	0.02	-0.05	0.39	0.56
	2000-2001	1.26***	0.00	-0.25***	0.00	0.73
Investment Ratio	Post1998	0.58***	0.00	-0.03	0.78	0.12
	2000-2001	0.54***	0.00	-0.13	0.36	0.13
Net Debt Issue	Post1998	-0.03	0.52	0.04	0.19	0.35
	2000-2001	-0.01	0.84	0.05	0.19	0.35
Net Equity Issue	Post1998	0.53***	0.00	-0.06	0.59	0.09
	2000-2001	0.59***	0.00	-0.22**	0.09	0.12