European Integration and Corporate Financing

by

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Abstract

This paper explores the importance of supply of capital for corporate financing. To identify this relation, we examine the impact of two exogenous events, entry to the EU and the adoption of Euro, which caused shifts in equity and credit markets during European integration. Following membership to EU, which eased access to equity capital, firms increase equity financing. Firms increase debt financing after the adoption of Euro, which improved access to international debt capital. We control for globalisation, ongoing developments in equity and credit channels, firm characteristics, and the moderating effects of the country of origin.

Keywords: European Integration, Capital Structure, Debt Maturity, FDI, European Firms

JEL Classification: *G15, G32, F36*

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Abstract

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1. Introduction

In this paper, we explore the importance of the supply of capital for corporate financing

decisions. We choose two exogenous events, membership to the European Union (EU) and the adoption of the Euro, which caused a shift in stock and credit market conditions and impacted on European integration. Our paper makes two contributions to the literature. First, we examine the capital structure implications of this unique integration experience initiated by the establishment of the EU, which preceded the introduction of the Euro. Several studies have examined the economic implications of this integration process. For example, earlier research has looked at the impact on bond and equity markets (e.g., Lane, 2006; Hardouvelis et al., 2006; Bekaert et al., 2013), on firms' foreign exchange exposures (e.g., Bartram and Karolyi, 2006) and on banking activities (e.g., Spiegel, 2009; Kalemli-Ozcan et al., 2010).[1]No study has looked at the impact on firms' financing choices.

Secondly, our paper contributes to capital structure theories by focusing on the supply-side effects. Supply-side effects arise when imperfections exist in capital markets. If the supply of capital is infinitely elastic at the correct price as assumed by Modigliani and Miller (1958), then debt levels are determined solely by the firm's demand for debt. There is recent evidence to suggest that supply conditions are important inputs to capital structure decisions. For example, Leary (2009) explores the relevance of capital market supply frictions for corporate capital structure decisions by studying the effect on firms' financial structures of two changes in bank constraints, the 1961 emergence of the market for certificates of deposit and the 1966 credit crunch. His results lend support to the role of credit supply and debt market segmentation in capital structure choice. Faulkender and Petersen (2006) present evidence that firms with bond rating have higher leverage ratios than those without after controlling for the demand for debt. The authors interpret this result as suggesting that debt segmentation may put constraints

[1] For a more complete list of studies see Bekaert et al (2013).

on some firms' ability to borrow so the observed leverage ratios may not reflect those demanded.

To test how the supply of capital affects capital structure choices one has to identify exogenous shocks that directly affect the supply of capital without directly affecting the trade-offs that firms face due to their corporate characteristics that influence these capital structure choices. The adoption of the Euro is an example of such an exogenous event as described by Titman (2002). "In 1999, European currencies were effectively merged into a single currency, the Euro. Prior to conversion, there were illiquid and inactive bond markets in the individual currencies in Europe. Basically the markets were small and illiquid. Therefore investors did not want to hold French Franks and DM bonds. By creating the Euro, European corporations can issue corporate bonds in a single currency which is likely to result in a single more active and more efficient market." (Titman, 2002 p.113-114).In this paper, we investigate the adoption of the Euro and its impact on corporate financing choices through the supply of debt capital.[2].

Prior to the adoption of the Euro, European countries had to join the EU created in 1993 with the signing of the EU Treaty, commonly referred to as the Maastricht Treaty, which allowed for the free movement of goods, capital, people and services between EU members and the implementation of EU directives to harmonise regulation of capital markets and financial services. The establishment of the EU enhanced the countries' access to international capital and allowed foreign equity ownership. The new financial environment expanded firms' financing choices, especially those of the smaller countries that had originally the least developed financial markets. Bearing in mind the findings of Bekaert et al. (2013) that equity

[2]It is possible that there could have been demand-side effects as a result of the adoption of the Euro as well. We describe how we control for them in detail in the next section.

market integration in Europe was mainly achieved during accession to the EU, while the launch of the European Monetary Union (EMU) and the adoption of the Euro had a non-significant impact, we consider membership to the EU as an exogenous event that affects capital structures of firms through the supply of equity capital. We delineate the impact of the two phases of European integration accordingly; the country's membership to the EU, which improves access to equity capital; and the country's adoption of the Euro, which improves access to debt capital.

Our work draws from two strands of literature, which have studied capital structure decisions in an international context. The first one refers to the difference between bank-based and market-based systems and the other looks at the impact of structural changes in emerging economies. Our study is complementary to those but differs from them in several aspects. The first group of studies in this literature focuses on differences in corporate financing choices between bank-based and market-based systems (e.g., Rajan and Zingales 1995; Antoniou et al., 2008). However, today bank-based and market-based systems are getting closer (e.g., Levine, 2002; Beck et al., 2010).[3]Higher levels of credit market integration have been observed in market-based systems and higher levels of equity market integration have been observed in bank-based systems (e.g., Rajan and Zingales, 2003). Assuming that firms operate either in a bank-based or in a market-based system underestimates the complexity of the financial markets today. Most firms operate in systems that exhibit characteristics of both. Our study contributes to the literature by examining the effect of the European integration that brings closer bank-based and market-based systems. On the one hand, stock markets are established in every

[3] In fact, Levine (2002) argues that classifying countries as market or bank based to distinguish financial systems is not helpful as both types of financial systems promote similar levels of economic growth. He further discusses that what matters is the level of development of the financial systems and the enforcement of legal contracts.

European country, and FDI flows increased, while on the other hand, the introduction of Euro made it possible to borrow in a common currency and expand the credit markets. [4]Accordingly, in our empirical models we control for the effects of both equity and credit market channels.

The second strand of studies focus on the impact of structural changes in emerging markets on firm financing choices through the equity market channel (e.g., Schmukler and Vesperoni, 2006; Mitton, 2006; Lucey and Zhang, 2011). Part of the deregulation, which leads to financial integration, includes the relaxation of foreign ownership restrictions. It should be noted that foreign equity flows can follow two routes; portfolio flows through the stock market and foreign direct investments (FDI) flows. The effect of stock market expansion has been studied in detail (e.g., Demirguc-Kunt and Maksimovic, 1999; Fan et al., 2012; De Jong et al., 2008). We introduce the impact of FDI flows on corporate choices as another channel of equity market integration. FDI flows precede portfolio flows (e.g., Andrade and Chhaochharia, 2010) that are traditionally used to measure equity market integration. This is especially important in the European context, whereby FDI inflows have increased from $124 billion in 1996 to $347 billion in 2009[5](see Figure 1).The two types of equity market integration arising from FDI and

[4]In fact, this process is officially addressed by the Markets in Financial Instruments Directive (known as MiFID) of 2003 that became effective in 2007 that provides the basis of the European Union law that harmonizes the regulation for investment services across the 30 member states.

[5] However, in 2000 FDI reached $695 billion as a result of the build-up to the adoption of the Euro by most EU-15 countries, before declining in 2004 due to primarily large repayments of intra-company loans by foreign affiliates in some host countries, particularly, Germany and the Netherlands (WIR, 2005). Subsequently, FDI inflows rose again due to higher intra-EU

portfolio flows can proceed simultaneously and interact with each other.[6]Hence, we control for both aspects of equity market integration to obtain a complete picture.

Our sample includes firms from both large and small economies of Europe. We have a total of 7226 listed firms in our sample, of which 6795 are from EU-15(Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the UK) and 431 are from European Union new member states EU-NMS(Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia).

Our results show that European firms increase equity financing when the country they reside enters the EU and debt financing when it joins the EMU. The firm level implications of adopting the Euro are through the credit channel that leads to increasing debt ratios and both short-term and long-term borrowing. We show that at the corporate level, firms increase equity financing as access to equity capital is expanded through accession to EU. In addition, we show that supply side developments in the credit markets as a result of the adoption of the Euro result in the use of higher debt at the corporate level confirming Titman's (2002) expectations to that effect. Our results are robust to controlling for several economic and financial developments in equity and credit markets that took place during the European integration and to the moderating effects of the country of origin. Bearing in mind that financial integration can be constrained by country and firm characteristics (e.g., Claessen and Schmuckler, 2007) and firms can overcome these obstacles with the help of globalisation (e.g., Doidge et al., 2012) we extend our analysis and divide our countries into EU-15; and EU-NMS, accordingly. In addition to our main results, we observe that in this process EU-NMS firms respond to higher

FDI, as NMS acceded to EU (WIR, 2006) reaching $830 billion in 2007, before declining again as a result of the global financial crisis.

[6]FDI is defined by OECD as minimum 10% of equity ownership.

levels of credit market integration by increasing leverage and to greater equity market integration by increasing equity, while EU-15 firms that are going through EMU accession phase increase their debt maturities in response to these changes. It is particularly interesting to note that FDI flows provide a valuable source of equity financing for firms in EU-NMS, while it enables longer debt maturities for firms in EU-15.

In order to ensure that our results concerning the effects of EU and EMU do not mask the effects of the ongoing globalisation process, we conduct further tests by including two direct indicators of financial globalisation based on Lane and Milesi-Ferretti (2007). Our results survive this test as well. We complete our analysis by looking at whether joining the EU and EMU offers better access to finance for small firms and try to understand if they have actually benefited more from European integration, and by looking at the financing decisions of non-surviving firms to understand their survival strategies with respect to corporate financing choices.

The rest of the paper is organized as follows. Section 2 gives the literature review and develops the hypotheses, Section 3 introduces the data, while Section 4 presents the research design. Section 5 discusses the empirical findings, while Section 6 presents robustness tests. Section 7 reports the analysis on small firms and non-survivor firms. Section 8 offers some concluding remarks.

2. European integration, firm financing and hypotheses development

2.1. Main hypotheses

Previous work on integration literature shows that financial integration can affect firms financing choices both through equity and credit markets (e.g., Kim et al., 2005; Mitton, 2006; Lucey and Zhang, 2011). Theory on equity market integration indicates that the cost of capital declines following equity market liberalization as a result of higher risk sharing, increased

competition, and improved information environment (e.g., Bekaert and Harvey, 2000; Henry, 2000; Kim and Singal, 2000; Foerster and Karolyi, 1999). This results in a decline in leverage and an increase in term maturities (e.g., Mitton, 2006; Schumukler and Vesperoni, 2006). Since Bekaert et al. (2013) show that in Europe, equity market integration takes place predominantly via the reduction in the cost of capital during accession to the EU rather than to the EMU, one would expect firms to increase equity financing during the EU accession phase.

During the EMU accession phase, the Euro-zone countries have to abide by the Maastricht criteria, which include lowering their interest rates and the rate of inflation as well as meeting the fiscal constraints. When they adopt the Euro, there is one interest rate, which is set by the European Central Bank (ECB). This process strengthens credit market integration, reduces information asymmetries, adverse selection and moral hazard, leading to lower costs of monitoring by the lenders (e.g., Levine, 2001), who reduce the cost of borrowing, which in turn encourages firms to increase borrowing (e.g., Giannetti and Ongena, 2009). As a result of this process the size of debt securities issued in the Euro area increased considerably with the introduction of the Euro (e.g., Lane, 2006). Although there is no work on debt maturities one would expect debt maturities to increase as the information environment and the external monitoring improve in this process. Thus, our main hypotheses are:

H_{1a}: European firms would increase equity financing as the country they reside accedes to EU and increase debt financing as it accedes to EMU.

H_{1b}: European firms would increase debt maturities as the country they reside accedes both to EU and EMU.

2.2. Other hypotheses

Macroeconomic conditions influence the firms' ability to raise capital and the mix of capital that they can raise (e.g., Erel et al., 2012).European integration took place over time and against

the backdrop of a global integration process, which had long lasting implications on economic and financial indicators, such as, economic growth, cost of borrowing, banking sector development, stock market expansion, and FDI flows (e.g., Fernández de Guevara et al., 2007; Lane, 2006; De Sousa and Lochard, 2011; Rajan and Zingales, 2003), which would have impacted on firms financing choices. Consequently, we control for these developments in our empirical estimations when we test for our main hypotheses. Additionally we investigate the direct impact of these changes on corporate financing choices as they have not been investigated in the European context before. In the following, we develop the hypotheses relating to the direct impact of these economic and financial developments on the European firms' financing decisions, starting with the impact of interest rates.

The level of interest rates is not a criterion for accession to EU, while reducing interest rates is one of the core criteria of joining EMU. Accordingly, countries start to lower the interest rates as part of their preparation to join the EMU. In particular, interest rates declined from 11% to 5.5% in EU-15-NMS and from 7.6% to 5.5% in EU-15 during this process (Table 3). The decline in interest rates has a direct and immediate impact on firm financing through the credit market channel. Although it is possible that it is the yield curve that might matter, previous literature shows that lower interest rates reduce the cost of borrowing at the corporate level (e.g., Booth et al., 2001; Barry et al., 2008). Thus, one would expect firms to increase leverage and extend debt maturities.[7]Accordingly our second set of hypotheses is as follows:

[7] Studies that have used inflation rather than interest rates to proxy for the cost of debt had found a negative relationship between inflation and debt levels (Demirguc-Kunt and Maksimovic 1999; Booth et al. 2001). We have also used inflation in alternative estimations. The conclusions do not change. Due to greater correlation between inflation and interest rates, it was not included as an additional variable in the final regression analysis.

H_{2a}: When interest rates decline, firms increase leverage.

H_{2b}: When interest rates decline, firms increase debt maturities.

During the European integration process, economic growth rates increased mainly for EU-NMS. Obstfeld (1994) argues that financial integration affects growth by creating more risk sharing opportunities and increasing industry specialization. The impact of gross domestic product (GDP) growth on financing opportunities has been studied empirically and the results vary. One line of research reports that firms increase leverage when economic growth increases (e.g., Demirguc-Kunt and Maksimovic, 1999; Booth et al., 2001; De Jong et al., 2008). Another line of research reports that equity financing increases as the economy grows (e.g., Frank and Goyal, 2008).This differential effect could depend on the relative strengths of the credit and equity channels. When we consider the equity market channel, higher growth rates can be either financed with equity from stock markets, or from FDI. Since in Europe, FDI flows increased significantly during the integration process, we would expect the equity market channel to have a greater impact than the credit market channel and for European firms to increase equity financing.

The empirical literature on the effect of growth on debt maturity is also mixed. Fan et al. (2012) say that greater economic growth reduces the risk of uncertainty and, as such, firms would be willing to borrow more with longer term maturities. On the other hand, staggered debt structures can lead to debt runs by creditors when maturities increase (e.g., He and Xiong, 2012). There is another body of empirical research that shows that the weak financial and legal institutions in developing countries force creditors to offer short term debt for better monitoring (e.g., Demirguc-Kunt and Maksimovic, 1999). These are both credit market arguments. If growth during integration is financed through the equity markets, one would expect debt

maturities to decline as firms switch from long-term debt to equity capital as they are both long term alternatives (e.g., Lucey and Zhang, 2011). In Europe, we would expect growth to be financed mainly through the equity channel with the predominant source of external equity being FDI. We would expect debt maturities to decline. Thus, our next set of hypotheses is:

H_{3a}: When economic growth rates accelerate, firms increase equity financing.
H_{3b}: When economic growth rates accelerate, firms decrease debt maturities.

The direct effect of credit market integration on firm financing choices comes from the availability of funds from the banking sector in Europe. We proxy credit market development in our analysis with the ratio of deposit money bank assets to GDP, similar to, Beck et al. (2010) and Demirguc-Kunt and Maksimovic (1999).During the European integration process, firms are exposed to a well-established bank-based financial system and their access to bank loans increased. Previous literature (e.g., Demirguc-Kunt and Maksimovic, 1999; De Jong et al., 2008; Beck et al,. 2008) also reveals that a higher level of banking sector development is associated with higher levels of external finance.

The empirical evidence on the effect of credit market development on debt maturities is mixed. A series of works by La Porta et al. (1997, 1998, 2000) reveal the importance of creditor protection in the banking sector and its effect on term maturities. In environments, where creditor protection is poor, banking sector development leads to shorter maturities so that banks monitor the firms more effectively (e.g., Demirguc-Kunt and Maksimovic, 1999; Giannetti, 2003; Bae and Goyal, 2009). Europe has a predominantly bank-based financial system and the credit market integration process has enhanced creditor protection for member states (e.g., Giannetti and Ongena, 2009). Therefore, we would expect term maturities to increase as the

banking sector in Europe expands. It should be noted that we control for asset tangibility in all estimations. Our next empirically testable hypotheses are:

H_{4a}: When the banking sector expands, firms increase leverage.

H_{4b}: When the banking sector expands, firms increase debt maturities.

European financial integration affects firms' equity financing from two external channels. Firms can raise equity financing either from the stock markets, or from FDI. We measure stock market activity by the stock market turnover ratio.[8]The empirical literature on the effect of stock market activity is mixed. Financial integration decreases cost of equity capital (e.g., Bekaert and Harvey, 2000; Henry, 2000; Kim and Singal, 2000; Bris et al., 2009) and thus increases equity financing (e.g., Agca et al., 2007; Beck et al., 2008).On the other hand, Demirguc-Kunt and Maksimovic (1996, 1999) report higher debt financing following equity market integration in emerging markets. They argue that this is due to the indirect effect of establishment of stock exchanges that leads to better regulation in terms of disclosure, reduced information asymmetries and greater external monitoring. We would expect higher stock market activity in Europe to increase equity financing due to higher availability of equity capital during the integration process. The increase in stock market activity will increase debt maturities as well (e.g., Demirguc-Kunt and Maksimovic, 1999; Fan et al., 2012).A developed stock market would increase transparency and external monitoring and hence reduce preference of lenders to lend short-term for better monitoring. Accordingly, we hypothesize that

[8] We have also used stock market capitalization to GDP ratio as a proxy for stock market development. However, its sign was not significant in our analyses consistent with Demirguc-Kunt and Maksimovic (1999).

H_{5a}: When stock market activity increases, firms increase equity financing.

H_{5b}: When stock market activity increases, firms increase debt maturities.

In Europe, FDI is a particular source of equity financing. As it has already been mentioned FDI flows to European countries and especially to EU-NMS increased substantially since the early 2000s reaching $830 billion in 2007. The majority of the FDI came from intra-EU M&As that were largely the result of cross-border corporate restructuring. Bevan and Estrin (2004) study the FDI flows from Western European Union countries to Central and Eastern European countries and confirm that EU announcements have been a significant determinant of FDI among other common influences. They also detect unusually large FDI flows from smaller EU-15 countries to EU-NMS during the integration process. It should be noted that FDI is a de facto measure of financial integration.[9]Previous research investigates other de facto measures of integration. For example, firms adopt financing policies to overcome investment barriers in the form of regulatory constraints, taxes and information constraints using global equity capital through American Depository Receipts (e.g., Foerster and Karolyi, 1999, 2000). Foreign ownership matters as it improves access to capital markets. FDI is an important source of global equity capital for European firms. We measure FDI as the ratio of FDI inflows to GDP. For equity financing FDI acts as a substitute for small stock markets in EU-NMS (e.g., Claessens et al., 2003). In some EU-NMS, stock markets declined as a result of unsuccessful mass privatizations and cross-listings, which have diverted trade away from local exchanges (e.g., Pajuste, 2002). Doidge, Karolyi, Stulz (2012) have shown a similar case globally using IPO activity around the world. In the initial stages of EU accession for some of these countries

[9]See Kose et al. (2009) for a detailed discussion of de jure and de facto measures of financial openness.

domestic credit was scarce due to underdeveloped financial systems and FDI became a substitute for domestic credit. For Central and Eastern European (CEE) countries FDI inflows is the most important source of capital flows. Foreign direct investors provide additional equity financing to local firms (e.g., Desai et al., 2004). Foreign-owned companies may outperform local companies in accessing credit market. They can borrow from their parent companies or access to international capital markets and borrow at a considerably lower cost than the local companies (e.g., Blalock et al., 2008). However, the impact of FDI flows on corporate finance decisions has been ignored in the capital structure literature. FDI positions in a destination country are later followed by stock portfolio positions in that country (e.g., Andrade and Chhaochharia, 2010). We introduce in our analysis FDI flows as an additional measure of equity market integration. We would expect higher FDI inflows to result in an increase in equity financing and an increase in debt maturities. Therefore, our next set of hypotheses is as follows:

H_{6a}: When FDI increases, firms increase equity financing.

H_{6b}: When FDI increases, firms increase debt maturities.

In addition to controlling for economic and financial changes in Europe, we also control for firm level variables of capital structure that are known to affect leverage and maturity structures. Consistent with existing literature, we include asset tangibility (net fixed assets over total assets), size (natural logarithm of total assets), and profitability (return on total assets) (e.g., Myers and Majluf, 1984; Rajan and Zingales, 1995; Frank and Goyal, 2009). Firm-specific variables that have explanatory power in the U.S. are used to explain firm leverage in other countries (e.g., Rajan and Zingales, 1995; Booth et al., 2001).[10]This is the case for both

[10]Rajan and Zingales (1995) examine the firm-level determinants of leverage in G7 countries. Booth et al. (2001) analyze the financial leverage decisions of listed companies from 1980-

bank oriented financial systems as well as market-oriented financial systems (e.g., Antoniou et al., 2008).[11]We control for firm level factors in all estimations. Finally, we control for the impact of current financial crisis, which caused severe debt and banking crises in some European countries, such as Portugal, Ireland, Greece and Spain on the capital structure and debt maturity choices of European firms by using a crisis dummy, which takes the value of one over the period 2008-09 and zero otherwise.

3. Sample and preliminary analysis

3.1. Sample composition

Our sample includes listed firms from both large and small economies of Europe.[12] We have a total of 7226 firms in our sample, of which 6795 are from EU-15 (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the UK) and 431 are from new member states EU-NMS (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia).[13] The source of firm level data is WRDS Compustat Global database and excludes financial services and utilities companies. Most macro economic data are collected from the World Bank's World

1990 across 10 developing countries including India, Pakistan, Thailand, Malaysia, Turkey, Zimbabwe, Mexico, Brazil, Jordan, and Korea.

[11] Antoniou et al. (2008) analyse G5 countries.

[12] Considering the fact that UK is a market-based system as opposed to the majority of EU-15, we also conduct estimations excluding UK from the EU-15 sample and our conclusions do not change.

[13] Bulgaria, Malta and Romania, although in EU are not included in the sample due to lack of sufficient firm-level data in the Compustat Global database.

Development Indicators Database (WDI April 2010). We use data from the Economic Intelligence Unit database for deposit money bank assets and data from UNCTAD for FDI inflows. Our analysis covers the period 1996 to 2009, and includes the negotiations phase, the accession of EU-NMS to EU and EMU, as well as the transition of EU-15 countries to EMU.[14,15] The sample includes all the active and inactive firms and therefore, does not have a survivorship bias[16]. We have a total of 57879 observations[17]

The dependent variables measure the capital structure and debt maturity choices of firms. Leverage is measured by the ratio of total liabilities to total assets (*TLTA*) and includes trade credit.[18] Term maturity is measured by the ratio of current liabilities to total liabilities (*CLTL*). We use two further variables to measure debt maturity; the ratio of long-term debt to total assets (*LTDTA*), and the ratio of current liabilities to total assets (*CLTA*). Our construction of book

[14] Cyprus, Czech Republic, Estonia, Hungary, Poland, and Slovenia started accession negotiations at the beginning of 1998, while the remaining accession countries started at the beginning of 2000. The Accession countries have all entered the EU by May 2004. EU-15 countries had already acceded to EU long before the investigation period of 1996-2009.

[15] The implementation of EMU started in 1993 and culminated with the adoption of the Euro in 1999. All EU-15 states except Denmark, Sweden and UK acceded to EMU by 2001. Cyprus, Estonia, Slovakia and Slovenia from EU-NMS are newest members of EMU.

[16] Inactive firms are those that are classified in research files because they were companies that have been deleted from the active file due to acquisition or merger, bankruptcy, leveraged buyout, or because they no longer file with SEC.

[17] Appendix A presents the number of average firm-year observations.

[18] We conduct alternative estimations using interest bearing leverage and debt maturities. The results are presented in Section 6.3 and are qualitatively similar to those of our main analysis.

leverage follows Li et al. (2011), Guariglia et al. (2011), Claessens et al. (2008) and Demirguc-Kunt and Maksimovic (1999), which is comparable to Fama and French's (2002) definition of leverage.

We use an EU dummy (*EU*) which takes the value one if the country is in the EU and zero otherwise and an EMU dummy (*EMU*), which takes the value one if the country is in EMU and zero otherwise. Acknowledging, however that the countries had to adopt some measures as stated in the Maastricht Treaty drafted in 1991 in preparation for joining EMU, so that the impact of EMU might have started earlier than the formal accession date to EMU, we use an alternative measure for the Euro effect to capture that phase, and check the robustness of our results, based on the elimination of exchange rate volatility. European countries reduced the volatility of their exchange rates before adopting the Euro by fixing them relative to the Deutsche Mark before 1999 and to the Euro after that.[19] As a result we use a variable (*EVEMU*) which is based on the realized exchange rate volatility, σ(the square root of the sum of squared daily exchange rate changes during a year) for all countries and years. It is then transformed onto a [0,1] scale, where a country with zero exchange rate volatility takes on a value of one; a country with 1% monthly volatility would take on a value of zero. The rest of the macro economic variables are defined as follows. We measure the cost of borrowing with the lending interest rates (*INT*).[20] We gauge economic growth with the growth rate of real GDP (GRRGDP). We use three measures to control for access to finance. The first one is the ratio

[19] We thank Geert Bekaert for suggesting this alternative measure and providing the data for it, which is used in Bekaert et al. (2013).

[20] Lending interest rates are taken from WDI and defined as the bank rate that usually meets the short- and medium-term financing needs of the private sector and we use the data reported in WDI for each country and year.

of deposit money bank assets to GDP (*DMGDP*), which is a proxy for the size and development of the financial sector (e.g., Beck et al., 2010; Demirguc-Kunt and Maksimovic, 1999).[21]The second measure of access to finance is the stock market activity. We use the stock market turnover ratio (*SMTO*), which is the total value of shares traded during the period divided by the average market capitalization for the period.[22] A higher ratio implies a more developed stock market (e.g., Demirguc-Kunt and Maksimovic, 1999; DeJong et al., 2008). The third measure of access to financing is the ratio of inward FDI Flows to GDP (*FFGDP*). It is an indicator of world integration through direct investments. Finally, we measure the impact of the current global financial crisis with a dummy (*CRISIS*), which takes the value one during 2008-2009 and zero otherwise.

We use the following measures for firm level determinants of leverage. We measure tangibility as the ratio of net fixed assets to total assets (*NFATA*), size as the log of total assets (*SIZE*) and profitability as the return on assets ratio (*ROA*).

3.2. Preliminary analysis

We start our preliminary analysis with the stylised facts about leverage and debt maturities of firms in Europe (see Table 1). We make some interesting comparisons of corporate leverage

[21] It should be noted that other studies have used different proxies, e.g. Booth et al. (2001), and Fan et al. (2012) use liquid assets to GDP measure, while Beck et al. (2008) use private credit to GDP ratio.

[22] Average market capitalization is calculated as the average of the end-of-period values for the current period and the previous period.

and debt maturities of firms in EU-NMS and EU-15 countries; of firms before and after accession to the Euro (The EU and EMU membership dates for all the countries are given in the last columns of panels A and B of Table 3); of small firms compared to large firms; and of survivor firms compared to non-survivor firms (see Table 2).

Panel A in Table 1 presents the mean leverage and debt maturities of firms in EU-NMS, while panel B of firms in EU-15 countries.[23] Column 1 reports the number of firms in each country during our sample period, and column 2 reports the leverage levels in every country. As it can be seen the range for leverage in EU-NMS is from 30% for Latvia to 51% for Slovakia, while in EU-15 countries the range is from 46% for Ireland to 66% for Portugal.

We make the following observations concerning comparisons between the various sub-groups (see Table 2). First, leverage in EU-NMS is significantly lower than in EU-15 countries, it is 45% compared to 54%. Secondly, for both groups of countries leverage had increased in post EMU period. Firms in EU-15 (EU-NMS) countries increased their leverage from 50% (44%) to 57% (52%). Thirdly, small firms in EU-NMS have similar leverage to small firms in EU-15 of 44%. Fourthly, small European firms in EU-NMS (EU-15) have significantly lower leverage than their large counterparts, of 46% (63%). Finally, non-survivor firms of both country groups have significantly higher leverage than their survivor counterparts. In EU-NMS (EU-15) non-survivor firms have leverage of 49% (56%) compared to 46% (53%) for survivor firms.

We turn now to debt maturities. Column 3 in Table 1 reports the means for debt maturity measured as the ratio of current liabilities to total liabilities, while columns 4 and 5 report results for two additional measures of debt maturity, namely the ratio of long-term debt to total

[23]We applied a cut-off of zero and one for both debt maturity and leverage to avoid the effect of outliers. This resulted in a deletion of 2571 observations in total.

assets and current liabilities to total assets ratios. Our discussion refers to column 3, since the other two columns present in general a similar picture. As it can be seen the range for the ratio for EU-NMS varies from 58% for Lithuania to 76% for Poland, while the lowest ratio in the EU-15 is 55% for Luxembourg and the highest 72% for the UK.

We make the following observations concerning comparisons between the debt maturities of various sub-groups (see Table 2). First, the firms in EU-NMS have shorter debt maturity of 71% compared to 67% for firms in EU-15 countries. Secondly, firms in EU-NMS andEU-15 have similar debt maturities in post EMU period. Thirdly, small firms in both EU-NMS and EU-15 have significantly shorter debt maturities, compared to the larger firms 77% (compared to 56%) and 79% (compared to54%) respectively. Finally, non-survivor EU-NMS (EU-15) firms' current liabilities are 66% (68%) of their total liabilities, compared to 71% (66%) for survivor firms, Thus, non-survivor firms in EU-NMS have longer debt maturity than survivor firms, while non-survivor firms in EU-15 have shorter debt maturity than survivor firms.

Subsequently, we report the stylised facts about the firm level determinants of capital structure and debt maturities in European countries. First, EU-NMS firms have higher asset tangibility of 42% compared to firms in EU-15 countries of 26%. Secondly, small firms in EU-NMS and EU-15 countries have significantly lower net fixed assets (than large firms), with an asset tangibility ratio of 34% (56%) and 18% (33%), respectively. Thirdly, firms in EU-NMS are significantly smaller than firms in EU-15 countries. Fourthly, EU-NMS firms are also more profitable than EU-15 firms. The average ROA is 6.6% for EU-NMS firms, whereas it is 1.4% for EU-15 firms during our sample period[24]. Finally, Non-survivor firms as expected are less profitable than survivor firms both in EU-NMS and EU-15 countries.

[24] Profitability decreases in the post-EMU period for both EU-15 and EU-NMS firms. This is most probably due to the current financial crisis that coincides with the post-EMU period.

The summary of stylised facts about the financial and economic indicators of the European integration process and related discussion is given in the Appendix B. Appendix C presents the Pearson correlation coefficients between all variables.

4. Research Design

We investigate the impact of membership to EU and EMU on corporate financing decisions of European firms. We control for firm level determinants suggested by capital structure theories in all our estimations. As explained earlier, European integration took place in two phases, membership to EU followed by the membership to EMU. Motivated by Bekaert et al. (2013), who showed that most of equity market integration took place during this first phase of European integration, membership to EU, we start our analysis by testing the impact of membership to EU on corporate financing choices. We expand the model by adding the EMU indicators in order to test the additional impact of the adoption of Euro on corporate financing decisions through the credit channel. We then add the control variables for the financial and economic indicators of the European integration process through the equity and credit market channels to test whether membership to EU and the adoption of the Euro had an impact beyond the impact of the on-going financial and economic developments in these countries. Following the research strategy just outlined, we estimate the following baseline model to test hypotheses 1 through to 6 developed in Section 1:

$$DebtRatio_{i,c,t} = \alpha_i + \beta_1 EU_{c,t} + \beta_2 Z_{c,t} + \beta_3 X_{c,t} + \beta_4 N_{i,c,t} + \beta_5 Crisis_t + \varepsilon_{i,t} \quad (1)$$

where *DebtRatio* is one of the four leverage and debt maturity ratios for firm *i*, in country *c*at time *t*, and stands for the ratio of total liabilities to total assets (*TLTA*), the ratio of current liabilities to total liabilities (*CLTL*), the ratio of long-term debt to total assets (*LTDTA*), and the

ratio of current liabilities to total assets (*CLTA*). *EU* is the European Union Accession dummy, $Z_{c,t}$ stands for the vectors of EMU indicators that are the European Monetary Union accession dummy (*EMU*) and the exchange rate volatility based indicator (*EVEMU*). $X_{c,t}$ stands for the vectors of the financial and economic indicators of the European integration process through the equity and credit market channels and includes the growth rate of real GDP (*GRRGDP*), the lending interest rates (*INT*), the deposit money bank assets to GDP ratio (*DMGDP*),stock market turnover (*SMTO*), and inward FDI flows to GDP ratio (*FFGDP*). $N_{i,c,t}$ stands for the vectors of firm-specific control variables and includes net fixed assets to total assets ratio (*NFATA*), the log of total assets(*SIZE*)and the ROA calculated as the ratio of earnings before interest and taxes to total assets (*PROFITABILITY*). *Crisis* is the dummy for the 2008-2009 crisis, and $\varepsilon_{i,t}$ is the error term. The crisis dummy is added when we include the macro factors.

We use Ordinary Least Squares panel estimation with fixed effects to allow for firm specific intercepts and capture the unobserved firm characteristics that do not change overtime.[25,26]We follow Brav (2009) and lag all macro-economic and firm specific variables by one period to

[25]The Hausman test (1978) confirms the use of fixed effects estimation for panels. While firm fixed-effect estimations would control for industry factors, we also run alternative estimations using random effects model with industry dummies in all subsamples. The results are qualitatively similar and the conclusions do not change.

[26] As the objective of the paper is not investigating the speed of adjustment to target capital structures, we do not use lagged values of the dependent variable as explanatory variable in the model and hence we do not employ dynamic panel estimation models such as two-step-system GMM (Antoniou et al. 2008). Furthermore, Hovakimian and Li (2012) show that partial adjustment models fail to provide economically significant indicators for dynamic trade-off models.

handle possible endogeneity issues. Since the residuals may be correlated across firms and/or across countries, and OLS standard errors may be biased, standard errors are clustered at the firm level as described in Petersen (2009).[27]Using IV estimation gives similar results (results are not reported but can be made available on request).[28]

Subsequently we extend our analysis to control for the moderating effects of country of origin for firms in EU-NMS and EU-15 countries on the relation between European integration variables and corporate financing choices. Previous studies show that the economic and financial development levels differ in old and new member states in Europe (Allen et al., 2006). Accordingly, firms that operate in less developed EU-NMS could benefit more from European financial integration as financial development can increase the supply of funds and stimulate external financing of firms (e.g., Rajan and Zingales, 1998) more in these countries. Thus, we expect these changes to have a more pronounced impact on the capital structure choices of EU-NMS firms via both credit and equity market channels. In the meantime, we predict that the impact of European financial integration would be more pronounced on the debt maturities of EU-15 firms as they already operate in more developed financial systems. Therefore, in order to investigate whether European integration exerts a differential impact on the leverage and debt maturity choices of EU-15 and EU-NMS firms, we pool these countries together into two groups, EU-NMS and EU-15 and interact the European integration indicators with the dummy variables for EU-15 and EU-NMS. Our approach is similar to the approach used by Brav (2009) in his investigation of capital structures of unlisted firms. We interact all macro-economic and

[27] We also check for two-dimensional clustering. As standard errors of the fixed effects model with year level clustering is lower than the White (1980) standard errors, we prefer to use 1 dimensional clustering rather than 2.

[28] Instruments are past values of right-hand side variables in alternative estimations.

firm-specific variables with the EU15 and the EU-NMS dummies and report F-tests of equality of coefficients of the interaction terms. The dummy for EU-15 (EU-NMS) takes the value 1, if the firm resides in a EU-15 country (EU-NMS) and zero otherwise. Accordingly, we next estimate the following model, where we include interaction terms to investigate the moderating effects of country of origin:

$$DebtRatio_{i,c,t} = \alpha_i + \beta_1 EU_{c,t} + \beta_2 EVEMU_{c,t} + \beta_3 X_{c,t} xEU15 + \beta_4 N_{i,c,t} xEU15 + \beta_5 X_{c,t} xEUNMS + \beta_6 N_{i,c,t} xEUNMS + \beta_7 CRISIS_t + \varepsilon_{i,t} \quad (2)$$

We finally repeat the estimations first for small firms and secondly for non-survivor firms to investigate whether their corporate financing choices are different. We rank firms according to their total assets measured in millions of Euros in EU-NMS and EU-15 samples separately. Each subsample is then split into quartiles and firms that belong to the bottom 25th percentile are defined as small firms. The average small firm sizes in EU-15 and EU-NMS samples are respectively 12 and 10 million Euros. Non-survivor firms are the companies that became inactive during the research period according to Compustat database. The database also classifies companies that were involved in M&A's as inactive companies. However, we do not include them in our analysis as non-survivors. The non-survivor firms in our sample are the companies who were either (i) liquidated, (ii) bankrupt or (iii) have no longer files with SEC. Accordingly, approximately 6.5% of EU-15 countries' firm-year end observations and 4% of EU-NMS countries' firm-year end observations were classified as non-survivors.

5. Empirical evidence

5.1. Capital structures

In this section we first present results of the baseline model for leverage described in equation 1 (Table 4). In Model 1, we examine the impact of EU, while in Models 2 and 3 we add EMU and EVEMU indicators respectively to test the additional impact of the Euro on the corporate financing decisions of European firms. In Models 4 and 5, we add the indicators of macroeconomic developments, which were going on at the same time as the accessions to EU and EMU. In all estimations, the coefficient estimates for firm-specific determinants of capital structure when they are significant have the expected sign in accord with capital structure theories.

In Model 1, we observe that the coefficient estimate for the EU dummy is negative indicating that firms increase equity financing following EU membership of the country they reside.[29] Adding the EMU dummy in Model 2 does not affect either the economic or statistical significance of the EU coefficient. We further observe that the coefficient estimate for the EMU dummy (EMU) is positive indicating that firms increase debt financing following the country's membership to EMU, confirming the differential impact of the two phases of the European integration. The robustness of our results is confirmed when we use the time varying foreign exchange based EMU indicator (EVEMU) reported in Model 3. The coefficient estimate for EVEMU indicator is positive and significant indicating that firms increase leverage as an EU member country prepares to adopt the Euro. Firms increase equity financing during the country's accession to the EU and debt financing during its accession to EMU. This confirms our main hypothesis H_{1a}.

During the European integration process most of equity market integration took place as countries joined the EU. However, credit market integration is accentuated with the introduction of the Euro as a common currency. According to our results, EU accession

[29] A decrease in the debt ratio implies an increase in equity financing.

increases equity financing by 2.8% and accession to Euro increases debt financing by 1.1% when we use the EMU dummy and 2.7% when we use EVEMU indicator for the adoption of Euro. The integration process in Europe has affected capital structures both through the equity and credit market channels with the economic significance of the equity market channel being comparable to that of the credit market channel. Countries in Europe first accede to EU and then to EMU. Thus, time-wise equity market integration starts earlier than credit market integration. Our results are in line with Bekaert et al. (2013) that equity market integration has taken place during the EU accession and but not due to the adoption of Euro. Firms in Europe benefit from equity market integration by increasing equity ratios. Supporting evidence is provided by Doidge et al. (2012) through international IPO activity and by Erel et al. (2012) through cross-border mergers that financial globalization makes it easier to issue equity. Firms benefit from the adoption of the Euro as a common currency by increasing their debt ratios. The time varying measure of adoption of the Euro is scaled between zero and one thus indicating that in fact when the country finally adopts the Euro the average firm increases debt financing by about 2.1%.

We test the robustness of our results by controlling for the effect of financial and economic indicators of European integration on capital structures (Models 4 and 5). The results are robust, the impact of EU and EMU remain statistically significant. This implies that the impact of the country joining the EU and EMU on firm level capital structures choices was additional to the impact of the other financial and economic developments taking place during the European integration process. In Model 4 the economic significance of joining the EU increases, indicating that following accession to the EU, *ceteris paribus*, firms increase their equity ratio by 4.4%. Similarly, following the adoption of the Euro, *ceteris paribus,* firms increase their debt ratios by 1%. In Model 5 we report results from estimations with the time varying, exchange rate volatility based EVEMU indicator variable. The results are robust to

the inclusion of financial and economic variables of European integration process through the equity market and credit market channels. Both the EU and the time varying measure of EVEMU indicator are statistically and economically significant. Following the accession to the EU, *ceteris paribus*, firms increase their equity ratio by 4.2% and following the adoption of the Euro, *ceteris paribus*, firms increase their debt ratios by 2%. These are our key results.

We now turn to our other hypotheses relating to the impact of the financial and economic indicators of European integration. Since the impact of financial and economic variables is similar in estimations using the dummy variable for EMU and the time varying Euro indicator variable, EVEMU, we continue our discussion with reference to the estimations, which employ the time varying Euro indicator variable in Model 5. The coefficient for interest rates (INT) is negative indicating that as interest rates decline, firms increase leverage, which confirms our H_{2a} hypothesis. When interest rates decline by 1%, firms increase leverage in their capital structures by 0.29%. Lower interest rates reduce the cost of borrowing for European firms and increase leverage accordingly.

The coefficient for growth rate of real GDP (GRRGDP) is negative, indicating that firms increase equity financing as the economy grows during the European integration. The growth rate of GDP can affect firms' capital structure choices both through the credit and equity channels as discussed by previous researchers. Our results confirm our H_{3a} hypothesis that in Europe economic growth affects capital structure choices of firms through the equity market integration channel rather than the credit market channel. These results are consistent with the findings of Frank and Goyal (2009) that high growth rates in the economy increase the profitability of firms and firms use internal sources of equity capital to finance growth.

The positive impact of stock market (SMTO) indicates that higher levels of stock market activity lead to higher leverage in European firms. This confirms our H_{5a} hypothesis. Stock market activity stimulates the credit markets, as listed firms become more transparent and

external monitoring is enhanced, increasing the availability of bank financing. However, this could be driven by the EU-15 countries, which are already operating in a well-established bank-based system and therefore we would expect them to be able to increase their debt financing. The EU-NMS, however, might respond differently and as equity financing becomes available either via the stock market or FDI we would expect firms to increase equity financing. We further elaborate on this result in the next section, where we discuss the moderating effects of firms' country of origin on the corporate financing choices. The lack of impact of FDI of corporate leverage might be due to this differential response of the two groups of countries.

5.2. Debt maturities

In this section, we examine the effect of European integration on debt maturities. Tables 5 and 6 report the results. Although we are concentrating on Table 5, the ratio of current liabilities to total liabilities to measure debt maturities, supplementary information is provided in Table 6 where we use the ratios of long term and short term liabilities to total assets in Panels A and B respectively. We note that the dummy variable for EU is not statistically significant in Models 1, 2,3 and 5 indicating that acceding to EU does not have significant impact on debt maturities. The EU dummy is significant and positive only in estimations reported in Model 4. Debt maturities decline as countries join the EU. Combined with earlier findings on leverage this result shows that firms replace long-term debt with equity financing when the country they reside joins the EU as discussed by Lucey and Zhang (2011).

The EMU dummy is positive and significant suggesting lower debt maturities, while the time varying exchange rate volatility based EMU indicator (EVEMU) is insignificant in all estimations reported in Table 5. However, supplementary information from Table 6 shows that

the ratio of both long term and short term debt to total assets increases similarly as the countries join the EMU with respect to both indicators EMU. This confirms our previous findings that accession to EMU affects corporate financing mainly through the credit market channel. These results are consistent with the findings of Goyal and Wang (2013), who show that firms increase short-term debt if they expect to be able to borrow with more favourable terms in the future. We observe in Model 5 that with the adoption of the Euro, the ratio of long term debt to total assets and ratio of short-term debt to total assets increase proportionately by 1%. This is a confirmation that the accession to EMU had a positive effect in accessing the credit markets. Accordingly, firms were able to increase both types of debt.

Looking now at the impact of the economic and financial indicators, we first note that results from Models 4 and 5 in Table 5 are similar. The coefficient estimate for interest rates (INT) is positive, suggesting that firms increase debt maturities as interest rates decline. The evidence is supportive of our H_{2b} hypothesis. This is consistent with Barry et al. (2008) that lower interest rates reduce cost of borrowing and corporations increase debt maturities. The coefficient estimate for growth rate of real GDP (GRRGDP) is also positive indicating that as the growth rates in the economy increase European firms decrease their debt maturities. This confirms our H_{3b} hypothesis. The coefficient estimate for size of the banking sector (DMGDP) is negative confirming our H_{4b}hypothesis that firms increase debt maturities as banking sector develops. Consistent with our prediction reforms during the European integration process, such as improvements in investor rights and contract enforcement, makes short-term lending for monitoring purposes redundant. Accordingly, as the cost of monitoring declines, banks lend long-term and firms increase debt maturities. The coefficient estimate for stock market activity (SMTO) is also negative, showing that firms increase debt maturities as stock market activity increases. This confirms our H_{5b} hypothesis and the results of previous research that higher stock market activity stimulates the credit market channel through higher transparency and

better external monitoring, thereby resulting in increased debt maturities (e.g., Demirguc-Kunt and Maksimovic, 1999; Fan et al., 2012). The coefficient estimate for FDI flows (FFGDP) is negative. The evidence supports our H_{6b} hypothesis that firms increase debt maturities as FDI flows increase during the European integration process. Foreign owned firms can borrow from their parent companies, or from international capital markets at lower costs than local companies can borrow (e.g., Blalock et al., 2008). We show that when European firms, access international capital markets with the help of their foreign direct investors they can also extend their debt maturities.

European integration process has affected corporate financing choices through the credit market and equity market channels. It is facilitated by declining interest rates that resulted in higher leverage and longer debt maturities, the latter being further extended by the expansion of the banking sector. Higher growth rates in European economies were financed mainly through the equity channel at the firm level. We also observe that the equity market channel both through the stock market and FDI flows helped increase term maturities. Firms had the opportunity to shift to long term financing both through the equity and credit channels in this process. We shall discuss the details of the moderating effects of the country of origin of these firms on the relation between their capital structure and debt maturity choices and financial and economic developments in Europe in the next section. We will show that our key results remain unchanged when we control for the differences in the economic and institutional conditions of countries in EU-15 and EU-NMS.

6. Robustness tests

In this section, we test the robustness of our key findings and explore the impact of the supply of capital on corporate financing decisions by first taking into account the effects of globalisation, second the moderating effects of the differences in the economic and institutional

environments of the EU-15 and EU-NMS, bearing in mind that the general environment that firms operate in might influence the opportunities they have; and thirdly, by repeating all estimations using an alternative measure of leverage, which includes only interest bearing debt ratios and excludes trade credit as a means of financing.

6.1. Do the effects of EU and EMU mask the effect of globalisation?

EU and EMU took place against the backdrop of the globalisation process. In order to ensure that the effects of EU and EMU do not mask the effects of this ongoing globalisation process we conduct further tests by including in equation (1) -and concentrating on the EVEMU indicator as in our earlier discussion-two direct indicators of integration based on Lane and Milesi-Ferretti (2007) and extracted from their web page. The first measure of international financial integration is based on portfolio equity and FDI stocks and is defined as follows:

$$GEQY_{c,t} = \frac{PEQA_{c,t} + FDIA_{c,t} + PEQL_{c,t} + FDIL_{c,t}}{GDP_{c,t}}$$

where PEQA (PEQL) denotes the stock of portfolio equity assets (liabilities) and FDIA (FDIL) denotes the stock of direct investment assets (liabilities). The second measure is $IFIGDP_{it}$ and is defined as follows:

$$IFIGDP_{c,t} = \frac{FA_{c,t} + FL_{c,t}}{GDP_{c,t}}$$

where FA (FL) denotes the stock of external assets (liabilities). It is aggregate foreign assets and liabilities including portfolio equity assets (liabilities), direct investment assets (liabilities), debt assets (liabilities), financial derivatives and official reserves (excluding gold holdings).

Results for both globalisation measures on capital structure and debt maturities are presented in Tables 7 and 8.[30] In Table 7, we observe that in Model 1 the coefficient estimate for GEQY is insignificant while the coefficient estimates for EU and EVEMU remain significant confirming the robustness of our results. As before the coefficient estimate for EU is negative indicating firms use more equity when they enter the EU and the coefficient estimate for EVEMU is positive indicating firms use more debt as they enter the Euro zone. The coefficient estimates for GEQY and EVEMU are insignificant in Model 2. The supplementary information reported in Models 3 and 4, indicate that the ratio or both long term and short term debt to total assets have increased similarly (1% and 1.3% respectively) in response to the firms entering the Euro zone, while the negative and significant coefficient estimate for GEQY indicate that higher portfolio equity flows resulted in lower long-term debt.

In table 8 we report results with estimations using IFIGDP as an additional variable to control for globalisation. IFIGDP measures international financial integration and proxies for globalisation in terms of all foreign assets and liabilities. The coefficient estimate for IFIGDP is insignificant in Model 1 but negative and significant in Model 2 indicating that when financial integration accelerates through globalisation, leverage is unaffected but term maturities become longer. In Model 1, as before the coefficient estimate for EU is negative indicating firms use more equity when they enter the EU and the coefficient estimate for EVEMU is positive indicating firms use more debt as they enter the Euro zone. In Model 2, the coefficient estimate for EU is insignificant, while the coefficient estimate for EVEMU is positive and significant suggesting lower debt maturities. The supplementary information reported in Models 3 and 4 of Table 8 indicate that the ratio of both long term and short term

[30] Due to data availability for globalisation indicators the sample period ends in 2007. Please refer to http://www.philiplane.org/EWN.htmldata on GEQY and IFIGDP variables.

debt to total assets have increased when firms enter the EMU. However, as before, when firms enter the EMU the ratio of long term debt to total assets increases by 1.1% and the ratio of current liabilities to total assets increases by 1.3% indicating that the impact of EMU is similar for both maturities.

6.2. Moderating effects of EU-15 and EU-NMS

We use interaction terms in order to evaluate the differential impact of the two country groups, EU-15 and EU-NMS, on the relation between corporate financing choices and the economic and financial indicators of the European integration process we have used in our earlier estimations. The results of the estimation of equation (2) for both capital structure and debt maturities are presented in Table 9. Panel A reports the coefficient estimates, and Panel B the p-values for the F-test of the equality of coefficient estimates of the interaction terms with the two groups of countries. The first thing we note is that our key results do not change with respect to the impact of EU and adoption of Euro on leverage and debt maturities. European firms increase equity financing as the country they reside accedes to the EU and increase debt financing as it accedes to the EMU.

We then turn to discuss briefly the additional information from the moderating effects of domicile of the firms. Previous work shows that economic and financial development levels are different in EU-15 and EU-NMS (Allen et al., 2006). Firms that operate in less developed new member states could benefit more from European Financial Integration as financial development can increase the supply of funds and stimulate external financing more in these countries. Thus we expect these changes to have a more pronounced impact on new member states firms both via equity and debt channels. The impact of European financial integration can be more pronounced on debt maturities for firms from member states as they have more developed financial systems. We start with the analysis of the capital structure decisions

reported in Column 1 of Table 9 and then elaborate on the debt maturities. The results for EU-15 firms are similar to the main results presented in Tables 4-6. Similar to EU-15 firms, EU-NMS firms also increase leverage when interest rates decline and increase equity capital when the economy grows faster. However, there are notable differences. Capital structure choices of EU-NMS firms are different in response to changes in the development of the banking sector, stock market activity, and FDI flows in the process of European integration. Firms in EU-NMS increase leverage as the banking sector develops. The coefficient estimate for the interaction term DMGDP*EU-NMS is positive and significant at 10% level. This indicates that firms in EU-NMS, when they have access to capital through the credit channel adjust their financing preferences accordingly and increase debt capital. This is also due to the willingness of Continental European banks' to lend to NMS. The coefficient estimate for stock market activity is negative for EU-NMS firms indicating that EU-NMS firms increase equity financing as stock market activity increases. This confirms the findings of Agca et al. (2007) and Beck et al. (2008) for emerging markets. The negative coefficient estimate of the interaction term FFGDP*EU-NMS indicates that EU-NMS firms increase equity financing as FDI flows increase. This finding is important as it indicates a second route for equity market integration in Europe that has impact on firm corporate financing choices. FDI is the most important source of capital for transition economies. To our knowledge we are the first authors to report that for firms making corporate financing choices equity market integration can take place through FDI flows and European integration is a good example for that. We show that the EU-NMS firms access to equity capital through FDI and adjust their capital structures accordingly.

The second column of Table 9 reports coefficient estimates for debt maturity (CLTL) estimations. Third and fourth columns of the table have additional information on the maturity structures as revealed by the ratios of long term and short term debt to total assets respectively. The coefficient estimate for entry to EU is insignificant, while the coefficient estimate for

EVEMU is positive and significant. When firms adopt the Euro, both long term debt and short term debt to total assets increases as can be seen from results reported for Models 3 and 4. When the firms reside in countries, which join the EMU, the ratio of long term debt to total assets increases by 1% while the ratio of short term debt to total assets increases by 1.4%. This is consistent with the previous discussions that joining the EU strengthens the equity channel through equity market integration and has no impact on the credit market channel. The credit market channel for firm level financing is used mainly when the firms reside in countries, which adopt the Euro.

We observe that none of the coefficient estimates for the interaction terms with EU-NMS are significant except for SMTO*EUNMS while all interaction terms with EU-15 are significant in Model 2. This indicates the impact of the European integration process on debt maturities is mainly observed in EU-15 firms, which confirms our key findings that joining the Euro enables the firms to use the credit channel for financing and making debt maturities longer. In the EU-15 group all countries have joined the EMU apart from UK, Denmark and Sweden. Therefore this is a strong indication that joining the EMU opens up the credit channel for firms' debt financing opportunities.

In conclusion, we would like to note that Rajan and Zingales (1998) show that firms that operate in less financially developed systems compared to their mature counterparts increase their debt financing as it becomes available. European integration has made financing available for firms in EU-NMS both through the equity and the credit channels. EU-15 firms already had access to both debt and equity capital due to their well-developed financial systems. In this process they could extend the maturities of their financing as a result of not only changes in credit markets, such as the expansion in banking sector and lowering interest rates but also the improvements in equity channels. For example, the expansion of stock market activities as well as increase in FDI flows helped these firms shift debt structures from short term to long term.

6.3. Measuring leverage with interest bearing debt ratios

In all previous estimations we included trade credit in our measure of leverage, apart from interest bearing debt, as these financing options are important for firms in EU-NMS."In countries or specific classes of firms, which use trade credit as a means of financing, accounts payables should be included in measures of leverage" (Rajan and Zingales, 1995, p.1428, footnote 11). There is vast evidence for the importance of non-debt items in external financing of especially small and constrained companies. For example, Petersen and Rajan (1997) show the importance of trade credit as a means for access to financing for small companies especially when the credit from financial institutions is scarce. Beck et al. (2008) present evidence that small firms use less bank finance. Credit constrained firms substitute trade credit for institutional financing. Kayhan and Titman (2007) further suggest that "indeed, credit rating agencies state that traditional measures focusing on long-term debt have lost much of their significance and that non-interest bearing liabilities like pension obligations should be considered as being similar to debt in many respects."[31] Accordingly, in our baseline estimations we used a broad measure of book leverage[32], which includes non-interest bearing items, similar to Demirguc-Kunt and Maksimovic (1999) along with others mentioned above.

In order to check the robustness of our findings we report results using alternative measures of leverage and debt maturity, which include only interest bearing debt both in calculating the ratio of total debt to total assets (to measure leverage) and while calculating our three measures

[31]See page 10, footnote 22 in Kayhan andTitman (2007).

[32]Rajan and Zingales (1995) discuss that book measures of leverage and market measures of leverage yield similar results.

of debt maturity (e.g., Brav, 2009; Frank and Goyal, 2008).Table 10 presents the results with interest bearing debt for our baseline regressions of equation 1.[33] We report in Panel A the results with the EU dummy alone, in Panel B with both EU and EVEMU variables and in Panel C with both EU and EVEMU variables and the controls for financial and economic indicators of European integration. Results are robust both with regards to capital structure and with regards to debt maturity. Firms increase equity when the country they reside joins the EU and increase interest bearing debt when it adopts the Euro. With respect to the impact of economic and financial indicators, we find that firms increase interest-bearing leverage as banking sector expands and as FDI flows increase.

7. Further analysis

7.1. Small firms

Firm size is an essential factor for access to financing (e.g., Titman and Wessels, 1988). Capital structure theories also elaborate how large firms have better access to debt capital. According to static trade-off theory, large firms, who are more diversified, have lower bankruptcy risk and for that reason have relatively more debt (e.g., Bradley et al., 1984; Myers, 1984; Frank and Goyal, 2008). Similarly, agency theory argues that large firms experience lower agency costs of debt due to their relatively higher asset tangibility and hence have higher debt (e.g., Jensen and Meckling, 1976; Frank and Goyal, 2008). In the meantime adverse selection costs, as discussed in pecking order theory, would be lower for large firms but due to their relatively higher asset tangibility they would still issue debt. In conclusion, capital

[33]We present results using the EVEMU indicator. Results using the EMU dummy are qualitatively the same and can be made available by authors upon request.

structure theories predict that in comparison to small firms, large firms would have relatively lower cost of borrowing and would be able to issue more debt. Our descriptive statistics confirm this.

There is a well established body of empirical literature on the advantages of large firms in accessing external financing (e.g., Rajan and Zingales, 1995; Titman and Wessels, 1988; Demirguc-Kunt and Maksimovic, 1999; Beck et al., 2008; Frank and Goyal, 2008). Small firms' access to external financing would be subject to the level of development of the financial system (e.g., Beck et al., 2008). Firms in more developed financial systems would have better access to capital. In this regard, the benefits of European integration should be more pronounced for small firms that will gain access to external capital in this process. Firm size also matters for term maturities. Large firms are subject to lower monitoring costs and have higher fixed assets, to issue secured and long-term debt, and thus are "inframarginal" borrowers (e.g., Demirguc-Kunt and Maksimovic, 1999; Frank and Goyal, 2003). Large firms can borrow even if the banking system is undeveloped, whereas small firms' borrowing is dependent on the size of the banking sector.

We examine whether joining the EU and EMU offers better access to finance for small firms and try to understand if they have actually benefited more from European integration. We would like to know if small firms could raise equity and debt capital or extend their maturity structures as the country they reside enters the EU and EMU. In our sample small firms' size are similar in different country groups; the average size of small firms in EU-NMS is 10 million Euros while that in EU-15 is 12 million Euros (Table 2 panel C).

Table 11 presents our results for small firms. We rank firms according to their total assets measured in millions of Euros in EU-NMS and EU-15 samples separately. Each subsample is then split into quartiles and firms that belong to the bottom 25th percentile are defined as small

firms. [34] We report coefficient estimates for leverage in Model 1. The coefficient estimate for EU is negative and significant indicating that firms increase equity in their financing when the country they reside joins the EU. The coefficient estimate for EMU is insignificant. Small firms do not increase debt ratios when the Euro is adopted. This finding indicates that small firms do not benefit from the country's membership to the EMU through the credit market channel. In addition, we also find that the coefficient estimate for interest rates is positive for small firms in EU-15 indicating that they do not benefit from the lower interest rates by increasing their debt financing. Note that interest rates declined in the process of EU accession especially in the EU-NMS. So, one could expect small firms in EU-NMS would benefit from that development. Our results reveal that the coefficient estimate for interest rates in EU-NMS is insignificant indicating that small firms could not benefit from reduced interest rates by increasing debt in their capital structures. Another notable finding is that small firms in EU-15 use the equity channel mainly through the FDI flows and increase equity financing as FDI flows increase. Small firms in EU-NMS have responded to changes in FDI flows, by increasing their leverage, while they neither increase debt capital in response to the expansion of the banking sector, nor do they increase equity financing in response to increase in the stock market activity. Our results contribute to Beck et al. (2008) by showing that small firms in Europe only benefit from the equity market channel mainly via the FDI flows that accelerated during the European integration process.

Model 2 of Table 11 reports results for debt maturities. The coefficient estimates for both EU and EMU are insignificant showing that small firms do not change their debt maturity

[34] For non-Euro countries the firm-year observations are converted to Euros on a yearly basis with the Reuters exchange rates collected from Datastream. Quartiles are by firm-year observations.

structures when the country they reside, enters the EU and the EMU. The coefficient estimates for the interaction terms with FDI flows indicate that small firms in EU-15 increase their debt maturities when FDI flows increase while the interaction term with economic growth shows that when growth rates in the country increase small firms reduce their debt maturities. Combined with the earlier capital structure results, we show that small firms cannot benefit from declining interest rates and the expansion of banking sector either in their leverage or in their debt maturity choices. When supply side issues come in to play, banks' preference to lend to large firms that are deemed less risky, might still prevail. This confirms the view of Demirguc-Kunt and Maksimovic (1999) that large firms are "inframarginal borrowers", at the same time offering some evidence that small firms still experience access to external capital problems despite development of the financial sector in Europe. Equity market channel via FDI flows is the predominant source of external capital for small firms in EU-15. For small firms in EU-NMS we observe that none of the financial and economic changes taking place during the European integration process have an effect on debt maturities.

7.2. Non-survivor firms

In this section, we are looking into the effect of joining the EU and EMU on the financing decisions of non-surviving firms. Non-surviving firms in our sample are firms who were either (i) liquidated, (ii) bankrupt or (iii) no longer files with SEC. We are investigating this with the view to making recommendations to European firms in terms of their survival strategies with respect to corporate financing choices. To our knowledge this has not been examined before.

Table 12, presents the results for non-survivor firms in EU-15 and EU-NMS.[35] Model 1 reports the coefficient estimates for leverage. Similar to the results reported in Tables 4-6 for all firms, non survivors also increase equity financing when the country they reside joins the

[35] Approximately one third of the non-survivor sample observations are from small firms.

EU and they increase debt financing when it joins the EMU. The coefficient estimate for EVEMU is positive and significant in Models 3-4 indicating that adopting Euro results in significantly higher borrowing. We know from our descriptive statistics presented in Table 1 that the non-survivors have already had higher levels of debt in their capital structures compared to survivors and yet they increase it even further when the country they reside in adopts the Euro.

Non-survivor firms fail to benefit from equity market integration. The coefficient estimates for stock market activity and FDI flows are both insignificant. The most interesting result for non survivors in EU-NMS is the response they give to higher growth rates in the economy by increasing leverage. Unlike successful firms that finance growth by equity, non-survivors finance growth by debt. Additional information from model 4 indicates that they finance growth in fact by increasing short term debt. No doubt this corporate financing strategy of excessive and especially short term leverage increases their fragility.

8. Conclusions

In this paper we have conducted a firm level analysis of the importance of the supply of capital on corporate financing choices. The European integration process provides an excellent background as the firms in Europe faced two exogenous events, besides the usual developments in financial integration that improved access to capital. The first phase of European integration is the countries' accession to the EU, which facilitates equity market integration and the second phase is the adoption of the Euro, which improves the credit channel. Using a very large cross-country firm level panel data that covers firms in all European countries, we show that firms increase equity financing when the country they reside joins the EU and increase debt financing and both short and long-term borrowing when it adopts the Euro. The supply of capital matters

for firms financing choices irrespective of whether the financial system is bank based or market based.

In this process, a complex set of changes took place in financial and economic environments of European firms that affected corporations' access to various sources of financing. We control for those, and we show that the impact of the EU and the Euro on corporate financing choices is additional to these developments. EU-15 countries have more developed financial systems while most EU-NMS are at different stages of financial development. When we control for the moderating effects of country of domicile we confirm the additional impact of membership to the EU and the adoption of the Euro on firms' capital structure and debt maturity choices. Our results are also robust to the inclusion of controls of financial globalisation indicators and to the use of different measures of leverage.

A unique feature of this paper is the introduction of FDI as an important component of the integration in Europe through the equity channel. We show at the firm level that integration with respect to accessing equity capital, can also be obtained through FDI which is in addition to what has been previously found at the market level via stock markets (e.g., Bekaert et al., 2013), ADR's (e.g., Foerster and Karolyi, 1999, 2000) and international IPO's (e.g., Doidge et al., 2012). We show that small firms are the beneficiaries of the European integration process via the equity channel and especially through FDI flows. Finally we show that firms that could not survive the European integration process are the ones that started the process with higher levels of debt and shifted to excessive short term debt to finance higher growth rates in the economy while their peers were relying on equity financing.

Appendix A

Average firm-year observations

year	N(tlta)	N(cltl)	N(ltdta)	N(clta)
1996	3.554	3.554	3.554	3.554
1997	3.595	3.595	3.595	3.595
1998	3.924	3.924	3.924	3.924
1999	4.313	4.313	4.313	4.313
2000	4.392	4.392	4.392	4.392
2001	4.355	4.355	4.355	4.355
2002	4.247	4.247	4.247	4.247
2003	4.281	4.281	4.281	4.281
2004	4.509	4.509	4.509	4.509
2005	4.663	4.663	4.663	4.663
2006	4.615	4.615	4.615	4.615
2007	4.417	4.417	4.417	4.417
2008	4.038	4.038	4.038	4.038
2009	2.976	2.976	2.976	2.976
total	57.879	57.879	57.879	57.879

Appendix B

Stylised Facts about financial and Economic indicators of the European Integration Process

We report stylised facts about the financial and economic indicators of European integration process in this Appendix. We compare EU-NMS to EU-15 countries, and before and after the accession to EMU. We list our comments below. First, interest rates are generally higher in EU-NMS10% compared to 6% in EU-15 countries during our sample period. The lowest and highest interest rates are observed in Cyprus 7.5% and Hungary 13.5%, respectively, among the EU-NMS and in Netherlands 4.2% and Greece 9.5% among the EU-15 countries. Secondly, after joining EMU, interest rates declined from 11% to 5.5% for EU-NMS and from 7% to 5.5% in EU-15, reflecting the countries' preparation to accede to EMU and abide by the Maastricht Criteria, which sets ceiling rates for inflation, budget deficits, government debt, and long-term interest rates in addition to joining the Exchange Rate Mechanism. The average GDP growth rate is 5% in EU-NMS and 3% in EU-15 countries. The highest growth rates are experienced in Estonia and Latvia (6.7%) in EU-NMS and in Ireland (6.5%) in EU-15 countries. In the post-EMU period, real GDP growth rates are not significantly higher than in pre-EMU period in either group of countries. This could be due to the global financial crisis. Deposit money bank assets to GDP ratio is 30% for EU-NMS and 58% for the EU-15 countries.[36] Cyprus and Luxembourg had the most established financial sectors in accession

[36] We exclude Luxembourg, which constitutes an outlier, in our calculations for means. Luxemburg is one of the smallest countries in Europe with a population of about half a million and an area of less than 1000 square miles. The banking sector in Luxemburg is one of the most developed in Europe and thus the ratio of deposit money to GDP is 12 times. Compared to other European countries with highly developed financial systems such as UK

countries and EU-15 countries, respectively. In post-EMU the size of the financial sector remains stable in EU-NMS, and increases from 44% to 53% of GDP in EU-15.

The stock markets are a lot more developed in EU-15 compared to EU-NMS. The stock market turnover rate is 40%, on average, for EU-NMS and 89%, on average, for the EU-15 countries. This is a significant difference. Hungary and Spain have the highest stock market activity respectively in EU-NMS and EU-15 countries. Stock market turnover decreases during accession to EMU in EU-NMS and increases in EU-15 countries. For the EU-NMS, the average ratio of FDI to GDP is 6.1% while it is 12.7% for the EU-15 countries. FDI increases in EU-NMS from 5% to 7% in post-EMU period, while FDI flows remain higher in EU15.

In conclusion, the descriptive statistics have revealed the following developments in the financial and economic landscape of the European companies. Interest rates have declined, real economic growth has decreased possibly as a result of the global financial crisis and the size of the banking sector expanded. We observe a decrease in the stock market activity of EU-NMS while stock market activity increases in EU-15 countries.[37] The inward FDI flows to EU-NMS increased in post-EMU periods especially in the EU-15 countries. In Europe, equity

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and Germany who have a ratio of 1.5 and 0.4 respectively, this number is considered to be an outlier.

[37] In Europe, larger economies' stock market capitalizations went up more than 13 times and the proportion of investments financed through equity increased more than 16 times during the two decades since 1980 (Rajan and Zingales 2003). For smaller countries, this has not been the case. Many of these stock markets were created and initially used for mass privatizations (Claessenset al. 2001). Subsequently, they levelled off and a more developed financial system similar to that of the larger economies of Europe emerged as the countries joined the EU.

capital becomes more readily available through foreign partners rather than through stock exchanges for EU-NMS, while EU-15 countries benefit from both routes of equity capital flows.

Appendix C

Correlation Matrix

	tlta	cltl	ltdta	clta	nfata	size	prof	emu	evemu	eu	int	grrgdp	dmgdp	smto	ffgdp	crisis
tlta	1.00															
cltl	-0.25	1.00														
ltdta	0.46	-0.71	1.00													
clta	0.67	0.49	-0.18	1.00												
nfata	0.06	-0.43	0.35	-0.25	1.00											
size	0.29	-0.40	0.33	-0.04	0.24	1.00										
prof	0.10	-0.10	0.07	0.03	0.11	0.27	1.00									
emu	0.16	-0.12	0.07	0.05	-0.13	0.19	0.06	1.00								
evemu	0.19	-0.17	0.07	0.04	-0.13	0.21	0.07	0.93	1.00							
eu	-0.07	-0.03	0.05	0.03	-0.13	0.03	-0.03	0.15	0.16	1.00						
int	-0.01	-0.09	-0.07	-0.07	0.10	0.02	0.04	0.00	0.07	-0.44	1.00					
grrgdp	-0.12	0.08	-0.01	-0.04	0.14	-0.06	0.05	-0.25	-0.30	-0.13	-0.04	1.00				
dmgdp	0.10	0.05	0.00	-0.06	0.02	-0.06	-0.06	-0.24	-0.27	0.10	-0.24	0.11	1.00			
smto	0.04	-0.09	0.01	-0.05	-0.18	0.05	-0.05	0.26	0.31	0.20	-0.03	-0.36	-0.10	1.00		
ffgdp	-0.03	-0.01	0.02	-0.03	0.02	0.02	0.00	0.01	0.00	-0.02	-0.04	0.15	0.38	-0.10	1.00	
crisis	0.01	-0.02	0.03	0.00	-0.04	0.04	0.01	0.12	0.11	0.04	0.07	-0.23	-0.06	0.20	-0.03	1.00

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References

Agca, S., De Nicolo, G., Detragiache, E., 2007. Financial Reforms, Financial Openness, and Corporate Borrowing: International Evidence. IMF Working Paper No. 07/186, 2007.

Allen, F., Bartiloro, L., Kowalewski, O., 2006. The Financial System of EU-25. K. Liebscher, J. Christl, P. Mooslechner eds., Financial Development, Integration and Stability in Central Eastern and South-Eastern Europe, Edward Elgar, Chelttenham.

Andrade, S.C., Chhaochharia, V., 2010. Information Immobility and Foreign Portfolio Investment. The Review of Financial Studies 23, 2429-2463

Antoniou, A., Guney, Y., Paudyal, K., 2008. The Determinants of Capital Structure: Capital Market-Oriented versus Bank-Oriented Institutions. Journal of Financial and Quantitative Analysis 431, 59-92.

Bae, K.H., Goyal, V.K., 2009. Creditor Rights, Enforcement, and Bank Loans. Journal of Finance 64, 823-860.

Barry, C.B., Mann, S.C., Mihov, V.T., Rodriguez, M., 2008. Corporate Debt Issuance and the Historical Level of Interest Rates. Financial Management 37, 413-430.

Bartram, S., Karolyi, G. A., 2006. The impact of the introduction of the Euro on foreign exchange rate risk exposures. Journal of Empirical Finance 13, 519-549.

Beck, T., Demirguc-Kunt, A., Maksimovic, V., 2008. Financing Patterns Around the World: Are Small Firms Different?. Journal of Financial Economics 89, 467-487.

Beck, T., Demirguc-Kunt, A., Laeven, L., Levine, R., 2008. Finance, Firm Size, and Growth. Journal of Money, Credit and Banking 40, 1379-1405.

Beck, T., Demirguc-Kunt, A., Levine, R., 2010. Financial Institutions and Markets across Countries and over Time: The Updated Financial Development and Structure Database. Worldbank Econ Review 241, 77-92.

Bekaert, G., Harvey, C.R., 2000. Foreign speculators and emerging equitymarkets. Journal of Finance 55, 565–613.

Bekaert, G., Harvey, C.R, Lundbladand, C., Siegel, S., 2013. The European Union, the Euro, and Equity Market Integration. Journal of Financial Economics, forthcoming

Bevan, A., Estrin, S., 2004. The Determinants of Foreign Direct Investments into European Transition Economies. Journal of Comparative Economics 32, 775-787.

Blalock, G., Gertler, P.J., Levine, D.I., 2008. Financial Constraints on Investment in an Emerging Market Crisis. Journal of Monetary Economics 55, 568-591.

Booth, L., Aivazian, V., Demirguc-Kunt, A., Maksimovic, V., 2001. Capital Structures in Developing Countries. Journal of Finance 56, 87-130.

Bradley, M., Jarrell, G., Kim, E. H., 1984. On the existence of an Optimal Capital Structure: Theory and evidence. Journal of Finance 39, 857-877.

Brav, O., 2009. Access to Capital, Capital Structure, and the Funding of the Firm. Journal of Finance 64, 263- 308.

Bris, A., Koskinen, Y., Nilsson, M., 2009. The Euro and Corporate Valuations. Review of Financial Studies 22, 3171-3209.

Claessens, S., Djankov, S., Klingebiel, D., 2001. Stock Markets in Transition Economies, in Financial Transition in Europe and Central Asia. Edited by L. Bokros, A. Fleming and C. Votava, IBRD/ WorldBank Publications, 2001.

Claessens, S., Lee, R., Zechner, J., 2003. The Future of Stock Exchanges in European Union New member states Countries. Published by the Corporation of London, 2003.

Claessens, S., Feijen, E., Laeven, L., 2008. Political connections and preferential access to finance: The role of campaign contributions. Journal of Financial Economics 88, 554–580

Demirguc-Kunt, A., Maksimovic, V., 1996. Stock Market Development and Financing Choices of Firms. World Bank Economic Review 10, 341-369.

Demirguc-Kunt, A., Maksimovic, V., 1999. Institutions, Financial Markets and Firm Debt Maturity. Journal of Financial Economics 54, 295-336.

De Jong, A., Kabir, R., Nguyen, T. T., 2008 .Capital structure around the world: The roles of firm- and country-specific determinants. Journal of Banking and Finance 32, 1954-69.

Desai, M.A., Foley, C.F., Hines, J.R., 2004. A Multinational Perspective on Capital Structure Choice and Internal Capital Markets. Journal of Finance 59, 2451-2487.

De Sousa, J. Lochard, J., 2011. Does the Single Currency Affect FDI?. The Scandinavian Journal of Economics 113, 553-578.

Doidge, C., Karolyi, G. A., Stulz, R. M., 2012. The U.S. left behind? Financial globalization and the rise of IPO activity around the world. Working Paper.

Erel, I., Julio, B., Kim, W., Weisbach, M. S., 2012. Macroeconomic Conditions and Capital Raising. Review of Financial Studies 25, 341-376.

Erel, R., Liao, C., Weisbach, M. S., 2012. Determinants of Cross-Border Mergers and Acquisitions. The Journal of Finance 67, 1045-1082.

Fama, E.F., French, K. R., 2002. Testing Trade-Off and Pecking Order Predictions About Dividends and Debt. Review of Financial Studies 15, 1-33.

Fan, J.P.H., Titman, S., Twite, G., 2012.An International Comparison of Capital Structure and Debt Maturity Choices. Journal of Financial and Quantitative Analysis 47, 23-56.

Faulkender, M., Petersen, M. A., 2006. Does the source of capital affect capital structure?. Review of Financial Studies 19, 45–79.

Fernandez De Guevara, J., Maudos, J., Perez, F., 2007. Integration and competition in the European financial markets. Journal of International Money and Finance 26, 26-45.

Foerster, S.R., Karolyi, G. A., 1999. The Effects of Market Segmentation and Investor Recognition on Asset Prices: Evidence from Foreign Stocks Listing in the United States. Journal of Finance 54, 981-1013.

Foerster, S.R., Karolyi, G. A., 2000. The Long-Run Performance of Global Equity Offerings. The Journal of Financial and Quantitative Analysis 35, 499-528.

Frank, M.Z., Goyal, V. K., 2003.“Testing the pecking order theory of capital structure. Journal of Financial Economics 67, 217–248

Frank, M.Z., Goyal, V. K., 2008. Trade-off and Pecking Order Theories of Debt. Handbook of Empirical Corporate Finance, Volume 2, Edited by B. EspenEckbo, pp. 135-202

Giannetti, M., 2003. Do Better Institutions Mitigate Agency Problems? Evidence from Corporate Finance Choices. Journal of Financial and Quantitative Analysis 38, 185-212.

Giannetti, M., Ongena, S., 2009. Financial Integration and Firm Performance: Evidence from Foreign Bank Entry in Emerging Markets. Review of Finance 13, 181–223.

Guariglia, A., Liu, X., Song, L., 2011. Internal Finance and Growth: Microeconometric Evidence on Chinese Firms. Journal of Development Economics 96, 79-94.

Goyal, V.K., Wang, W., 2013. Debt Maturity and Asymmetric Information: Evidence from Default Risk Changes. Journal of Financial and Quantitative Analysis, forthcoming.

Hardouvelis, G.A., Malliaropulos, D., Priestley, R., 2006. EMU and European Stock Market Integration. The Journal of Business 79, 365-392.

Hausman, J.A., 1978.Specification Tests in Econometrics. Econometrica 46, 1251-1271.

He, Z. and W. Xiong., 2012. Dynamic Debt Runs. The Review of Financial Studies 25, 1799-1843.

Henry, P.B., 2000.Stock market liberalization, economic reform, and emerging market equity prices. Journal of Finance 55, 529–564.

Hovakimian, A., Li, G., 2012.Is the Partial Adjustment Model a Useful Tool for Capital Structure Research. Review of Finance 16, 733–754.

Jensen, M.C., Meckling, W. H., 1976. Theory of the firm: Managerial Behavior, Agency Costs and Ownership Structure. Journal of Financial Economics 3, 305-360.

Kalemli-Ozcan, S., Papaioannou, E., Peydró, J. L., 2010. What lies beneath the Euro's effect on financial integration? Currency risk, legal harmonization, or trade?, Journal of International

Economics 81,75–88.

Kayhan, A., Titman, S., 2007. Firms Histories and Their Capital Structures. Journal of Financial Economics 83, 1-32.

Kim, E.H., Singal, V., 2000. Stock market opening: experience of emerging Economies. Journal of Business 73, 25–66.

Kim, S.J., Moshirian, F., Wu, E., 2005. Dynamic stock market integration driven by the European Monetary Union: An Empirical analysis. Journal of Banking and Finance 29, 2475-2502.

Kose, M. A., Prasad, E.S.,. Terrones, M.E., 2009. Does Openness to International Financial Flows Raise Productivity Growth?. Journal of International Money and Finance 28, 554-580.

La Porta, R., Lopez de Silanes, F., Shleifer, A., Vishny, R., 1997. Legal determinants of external finance. Journal of Finance 52, 1131-1150.

La Porta, R., Lopez de Silanes, F., Shleifer, A., Vishny, R., 1998.Law and finance. Journal of Political Economy 10, 1113-115.

La Porta, R., Lopez de Silanes, F., Shleifer, A., Vishny, R., 2000. Investor protection and corporate governance. Journal of Financial Economics 58, 3-27.

Lane, P.R., 2006. The Real Effects of European Monetary Union. Journal of Economic Perspectives 20, 47-66.

Lane, P. R., Milesi-Ferretti, G. M., 2007. The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970–2004. Journal of International Economics 73, 223–250.

Leary, M.T., 2009.Bank Loan Supply, Lender Choice, and Corporate Capital Structure. Journal of Finance 64, 1143-1185.

Levine, R., 2001. International financial liberalization and economic growth. Review of International Economics 9, 688-702.

Levine, R., 2002. Bank-based or market based systems, Which one is better?. Journal of Financial Intermediation11, 398-428.

Li, D., Nguyen, Q. N., Pham, P. K., Wei, S.X., 2011. Large Foreign Ownership and Firm-Level Stock Return Volatility in Emerging Markets. Journal of Financial and Quantitative Analysis 46, 1127-1155.

Lucey, B.M., Zhang, Q., 2011. Financial Integration and emerging markets capital structure. Journal of Banking and Finance 35, 1228-1238.

Mitton, T., 2006.Stock market liberalization and operating performance at the firm level. Journal of Financial Economics 81, 625–647.

Modigliani, F., Miller, M. H., 1958. The cost of capital, corporation finance and the theory of investment. American Economic Review 48, 261-297.

Myers, S.C., 1984. The Capital Structure Puzzle. Journal of Finance 39, 575-592.

Myers, S.C., Majluf, N. S., 1984. Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not. Journal of Financial Economics 13, 187-221.

Obstfeld, M., 1994. Risk-taking, global diversification, and growth. American Economic Review 8, 1310-1329.

Pajuste, A., 2002. Corporate Governance and Stock Market Performance in Central and Eastern Europe: A Study of Nine Countries, 1994-2001, Centre for the Study of Economic and Social Change in Europe, University College London Working Paper No. 22, 2002.

Petersen, M.A., 2009. Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches. Review of Financial Studies 22, 435-480.

Petersen, M. A., Rajan, R. G., 1997.Trade Credit: Theories and Evidence. Review of Financial Studies 10, 661-691.

Rajan, R.G., Zingales, L., 1995. What Do We Know About Capital Structure? Some Evidence from International Data. Journal of Finance 50, 1421-1460.

Rajan, R.G., Zingales, L., 1998. Financial Dependence and Growth. American Economic Review 88, 393-410.

Rajan, R.G., Zingales, L., 2003. Banks and Markets: The Changing Character of European Finance.*NBER* Working Paper No. W9595.

Schmukler, S. L., Vesperoni, E., 2006. Financial globalization and debt maturity inemerging economies. Journal of Development Economics 79, 183-207.

Spiegel M. M., 2009. Monetary and Financial Integration in the EMU: Push or Pull?. Review of International Economics 17, 751-776.

Titman, S., 2002. The Modigliani and Miller Theorem and the Integration of Financial Markets. Financial Management 31, 101-115.

Titman, S., Wessels, R., 1988. The Determinants of Capital Structure Choice. Journal of Finance 43, 1-20.

White, H., 1980. A Heteroskedasticity-Consistent Matrix Estimator and a Direct Test for Heteroskedasticity. Econometrica 48, 817-838.

WIR 2005. Transnational Corporations and the Internationalization of R&D, UNCTAD.

WIR 2006. FDI from Developing and Transition Economies: Implications for Development, UNCTAD.

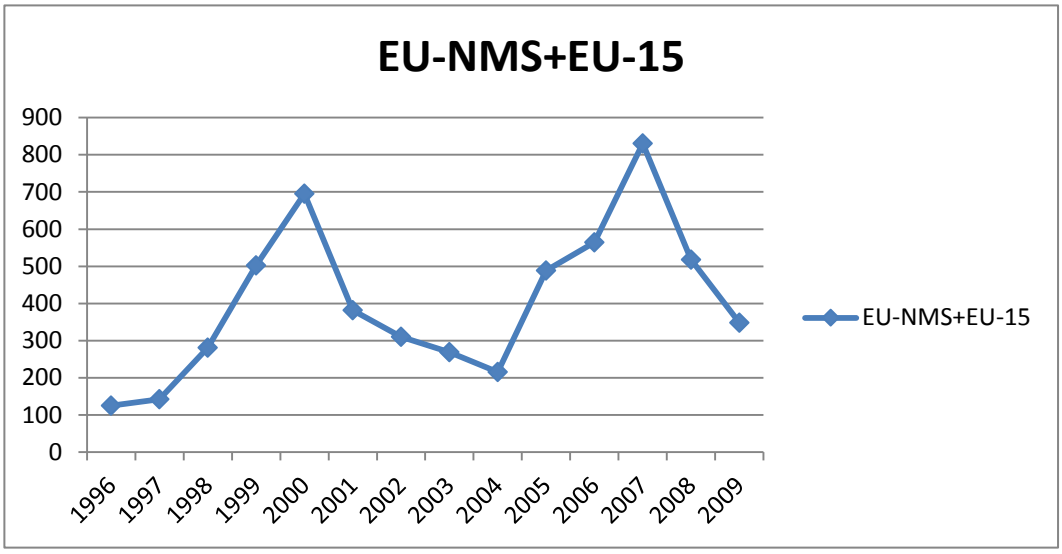

Figure 1
FDI Inflows
This figure illustrates on average the annual inward foreign direct investment flows in USD in billions to EU-NMSs and EU-15over the period 1996-2009. Source: UNCTAD

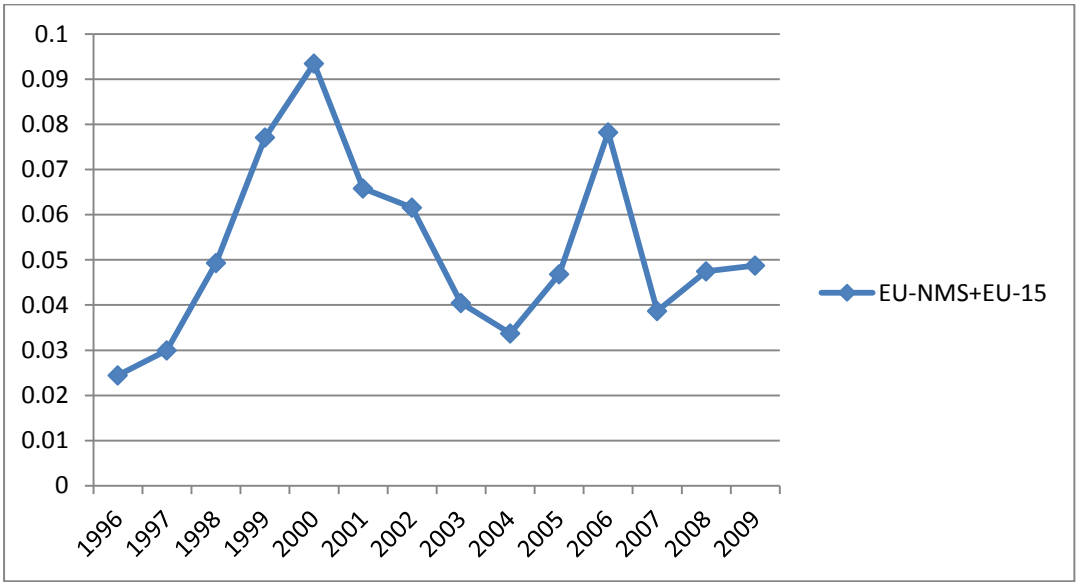

Figure 2
FDI Inflows as percentage of GDP
This figure illustrates on average the inward foreign direct investment flows as percentage of GDP to EU-NMSs and EU-15 over the period 1996-2009. Source: UNCTAD

Table 1

Leverage, Debt Maturities, and firm level characteristics of European firms

Panel A: Firms in EU-NMS

	Number of Observations	TLTA	CLTL	LTDTA	CLTA	NFATA	Size	Profitability
Cyprus	118	0.500	0.668	0.114	0.347	*0.440*	*181*	0.052
		0.221	*0.259*	*0.118*	*0.218*	*0.281*	*225*	0.084
Czech Republic	203	0.439	0.623	0.086	0.279	0.610	1285	*0.064*
		0.160	*0.259*	*0.092*	*0.167*	0.185	2459	*0.084*
Estonia	146	0.403	0.701	0.138	0.258	0.465	137	*0.110*
		0.206	*0.260*	*0.155*	*0.157*	0.257	297	*0.106*
Hungary	252	0.360	0.710	0.081	0.242	*0.481*	770	0.078
		0.149	*0.238*	*0.100*	*0.121*	*0.193*	*1865*	0.074
Latvia	201	0.302	0.645	0.088	0.179	0.473	99	*0.044*
		0.201	*0.255*	*0.139*	*0.141*	0.201	188	*0.110*
Lithuania	224	0.433	0.577	0.146	0.248	0.606	206	*0.057*
		0.198	*0.245*	*0.137*	*0.154*	0.245	276	*0.087*
Poland	1952	0.484	0.760	0.069	0.364	0.346	251	*0.068*
		0.196	*0.198*	*0.112*	*0.181*	0.203	983	*0.193*
Slovakia	63	0.508	0.712	0.094	0.367	0.419	479	*0.073*
		0.184	*0.201*	*0.095*	*0.181*	0.233	617	*0.120*
Slovenia	204	0.442	0.620	0.113	0.280	*0.505*	525	0.044
		0.189	*0.158*	*0.089*	*0.142*	*0.151*	*488*	*0.043*
EU-NMS	3363	0.453	0.714	0.085	0.32	0.416	353	0.066
		0.199	*0.224*	*0.117*	*0.18*	*0.227*	*1140*	*0.158*

Panel B:Firms in EU-15

	Number of Observations	TLTA	CLTL	LTDTA	CLTA	NFATA	Size	Profitability
Austria	1062	0.586	0.556	0.126	0.324	*0.320*	937	0.038
		0.2	*0.205*	*0.123*	*0.163*	*0.189*	*2137*	0.097
Belgium	1300	0.571	0.639	0.144	0.354	0.296	1488	*0.050*
		0.198	*0.214*	*0.137*	*0.166*	0.213	5073	*0.132*
Denmark	1578	0.515	0.655	0.144	0.329	0.323	721	*0.031*
		0.195	*0.219*	*0.134*	*0.163*	0.210	2951	*0.173*
Finland	1576	0.530	0.632	0.155	0.323	*0.288*	*1190*	0.064
		0.164	*0.206*	*0.128*	*0.138*	*0.203*	*3392*	0.125
France	7948	0.598	0.698	0.130	0.410	0.186	2790	*0.059*
		0.187	*0.205*	*0.132*	*0.175*	0.173	11651	*0.131*
Germany	8118	0.567	0.568	0.102	0.309	*0.231*	*2560*	0.013
		0.220	*0.244*	*0.126*	*0.173*	*0.191*	*14180*	0.247
Greece	1347	0.545	0.668	0.143	0.356	0.373	655	*0.073*
		0.166	*0.234*	*0.144*	*0.162*	0.210	1577	*0.088*
Ireland	828	0.460	0.658	0.154	0.267	0.333	760	*-0.001*
		0.250	*0.270*	*0.171*	*0.165*	0.275	2044	*0.235*
Italy	2810	0.603	0.648	0.129	0.389	*0.258*	3262	0.041
		0.189	*0.186*	*0.119*	*0.174*	*0.201*	*12403*	0.102
Luxembourg	303	0.520	0.552	0.183	0.266	*0.380*	4244	0.056
		0.212	*0.237*	*0.159*	*0.140*	*0.238*	*13063*	0.110
Netherlands	2077	0.581	0.677	0.132	0.383	*0.259*	2443	0.059
		0.192	*0.206*	*0.129*	*0.164*	*0.194*	*7284*	0.213
Portugal	626	0.656	0.612	0.196	0.398	*0.371*	1709	0.044
		0.173	*0.207*	*0.139*	*0.166*	*0.203*	*3979*	0.066
Spain	1620	0.579	0.603	0.152	0.341	*0.360*	*3741*	0.067
		0.183	*0.230*	*0.143*	*0.170*	*0.225*	*10975*	0.075
Sweden	3988	0.507	0.679	0.125	0.327	0.201	757	*-0.032*
		0.211	*0.697*	*0.146*	*0.176*	0.207	2823	*0.307*
UK	19335	0.478	0.729	0.101	0.330	*0.282*	*1209*	-0.022
		0.233	*0.249*	*0.136*	*0.195*	*0.259*	*8325*	*0.371*
EU-15	54516	0.535	0.671	0.119	0.344	0.262	1824	0.014
		0.218	*0.24*	*0.135*	*0.261*	*0.227*	*9579*	*0.272*

TLTA is the ratio of total liabilities to total assets; *CLTL* is the ratio of current liabilities to total liabilities; *LTDTA* is the ratio of long-term debt to total assets; *CLTA* is the ratio of current liabilities to total assets; *NFATA* is the ratio of net fixed assets to total assets; Profitability is the *ROA* and *Size* is the total assets in million Euros. The first row for each country denotes the mean values and the second row denotes the standard deviations for firm observations over the research period 1996-2009.

Table 2

Leverage and Debt Maturity Comparisons in EU-15 and EU-NMS Firms

Panel A: Firms in EU-NMS and EU15 Countries

	EU-NMS	EU15	Difference
TLTA	0.453	0.535	21.288***
CLTL	0.714	0.671	-9.970***
NFATA	0.416	0.26	-38.458***
Size	353	1824	8.898***
Profitability	0.066	0.014	-10.927***

Panel B: Firms in Pre- and Post-EMU periods

	EU-NMS			EU-15		
	Pre-EMU	Post-EMU	Difference	Pre-EMU	Post-EMU	Difference
TLTA	0.44	0.52	2.932***	0.507	0.572	8.639***
CLTL	0.66	0.625	-1.526*	0.615	0.638	-0.697***
NFATA	0.47	0.433	-1.414*	0.299	0.241	-18.928***
Size	292	648	6.217***	1664	2611	5.842***
Profitability	0.071	0.035	-3.153***	0.071	0.036	-14.04***

Panel C: Small Firms vs. Large Firms

	EU-NMS			EU15		
	Small	Large	Difference	Small	Large	Difference
TLTA	0.441	0.46	2.279**	0.44	0.627	74.157***
CLTL	0.77	0.563	-17.182***	0.791	0.542	-98.242***
NFATA	0.346	0.559	16.976***	0.175	0.326	58.433***
Size	10	1912	22.056***	12	6664	43.587***
Profitability	0.058	0.064	0.457	-0.11	0.072	46.505***

Panel D: Non-survivor Firms vs. Survivor Firms

	EU-NMS			EU15		
	Non-Survivor	Survivor	Difference	Non-Survivor	Survivor	Difference
TLTA	0.49	0.457	-1.845**	0.564	0.532	-7.885***
CLTL	0.662	0.713	2.512***	0.681	0.665	-3.604***
NFATA	0.52	0.409	-5.297***	0.273	0.247	-6.761***
Size	447	370	-0.708	284	2309	13.83***
Profitability	0.054	0.064	-1.334	-0.106	-0.029	3.837***

The mean values for each variable over the research period 1996-2009 are presented in the rows for each panel. The difference column in the means statistics is t-test of equality of means. *TLTA* is the ratio of total liabilities to total assets; *CLTL* is the ratio of current liabilities to total liabilities; *NFATA* is the ratio of net fixed assets to total assets; *Size* is the total assets in million Euros and *Profitability* is the return on assets ratio. Small firms are the firms that ranked at the bottom 25% and large firms are the firms that ranked at the top 25% in each panel. Non-survivor firms are inactive firms except for M&As. *, ** and *** denote statistical significance at the 10%, 5% and 1% level correspondingly.

Table 3
Financial and Economic Determinants of Capital Structures and Debt Maturities in Europe

Panel A: New member states

Countries	INT	GRRGDP	DMGDP	SMTO	FFGDP	EU Accession Date	EMU Accession Date
Cyprus	0.075	0.036	1.729	0.235	0.095	2004	2008
Czech Republic	0.080	0.032	0.189	0.575	0.058	2004	
Estonia	0.085	0.067	0.161	0.377	0.087	2004	2011
Hungary	0.135	0.036	0.078	0.778	0.119	2004	
Latvia	0.115	0.067	0.295	0.136	0.048	2004	
Lithuania	0.097	0.062	0.069	0.202	0.039	2004	
Poland	0.133	0.047	0.064	0.470	0.037	2004	
Slovakia	0.114	0.053	0.075	0.629	0.055	2004	2009
Slovenia	0.120	0.043	0.112	0.182	0.019	2004	2007

Panel B: EU-15

Countries	INT	GRRGDP	DMGDP	SMTO	FFGDP	EU Accession Date	EMU Accession Date
Austria	0.049	0.024	0.519	0.412	0.027	1995	1999
Belgium	0.075	0.022	0.695	0.461	0.135	1957	1999
Denmark	0.068	0.019	0.501	0.740	0.042	1973	
Finland	0.045	0.036	0.275	0.997	0.033	1995	1999
France	0.043	0.021	0.424	0.881	0.027	1957	1999
Germany	0.093	0.015	0.392	1.386	0.020	1957	1999
Greece	0.095	0.038	0.167	0.594	0.008	1981	2001
Ireland	0.052	0.065	2.099	0.595	0.070	1973	1999
Italy	0.071	0.013	0.094	1.253	0.011	1957	1999
Luxembourg	0.044	0.046	12.86	0.017	1.313	1957	1999
Netherlands	0.042	0.028	0.624	1.288	0.066	1957	1999
Portugal	0.062	0.022	0.265	0.679	0.027	1986	1999
Spain	0.061	0.035	0.161	1.741	0.033	1986	1999
Sweden	0.051	0.028	0.360	1.076	0.062	1995	
UK	0.052	0.028	1.487	1.131	0.042	1973	

Panel C: EU-NMS vs. EU15

	EU-NMS	EU15	Difference
INT	0.101	0.060	-10.764***
GRRGDP	0.049	0.029	-6.669***
DMGDP	0.307	0.575	3.093***
SMTO	0.404	0.885	8.296***
FFGDP	0.061	0.127	1.242*

Panel D: EU-NMS vs. EU15 in Pre- and Post-EMU Periods

	EU-NMS			EU15		
	Pre-EMU	Post-EMU	Difference	Pre-EMU	Post-EMU	Difference
INT	0.110	0.055	-2.022*	0.076	0.055	-2.835***
GRRGDP	0.039	0.044	1.000	0.037	0.028	-2.123**
DMGDP	1.055	1.044	-0.458	0.441	0.536	0.711
SMTO	0.442	0.053	-1.355	0.709	0.908	1.853**
FFGDP	0.051	0.076	0.444	0.097	0.163	1.209

The figures are annual averages for the period 1996-2009. *INT* is the lending interest rates, *GRRGDP* is the growth rate of real GDP, *DMGDP* is the ratio of deposit money bank assets to GDP, *SMTO* is stock market turnover calculated as the ratio of total value of shares traded during the period to the average market capitalization for the period. *FFGDP* is the ratio of inward FDI flows to GDP. The difference column in the means statistics is t-test of equality of means and is a matched paired t-test of equality of means for pre- and post-EMU comparisons. We exclude Luxembourg from Deposit money bank assets to GDP ratio in our calculations for means as it is an outlier.*, ** and *** denote statistical significance at the 10%, 5% and 1% level correspondingly.

Table 4
European Integration and Capital Structures

	Model 1	Model 2	Model 3	Model 4	Model 5
EU	**-0.028****	**-0.028****	**-0.027****	**-0.045*****	**-0.042*****
	0.011	*0.011*	*0.011*	*0.012*	*0.012*
EMU		**0.011*****		**0.007***	
		0.003		*0.004*	
EVEMU			**0.022*****		**0.016*****
			0.005		*0.005*
INT				**-0.327*****	**-0.293*****
				0.066	*0.066*
GRRGDP				**-0.371*****	**-0.365*****
				0.060	*0.060*
DMGDP				0.001	0.002
				0.002	*0.002*
SMTO				**0.007****	**0.007***
				0.003	*0.003*
FFGDP				-0.001	-0.001
				0.005	*0.005*
NFATA	**0.084*****	**0.084*****	**0.084*****	**0.100*****	**0.100*****
	0.014	*0.014*	*0.014*	*0.014*	*0.014*
SIZE	**0.016*****	**0.015*****	**0.015*****	**0.013*****	**0.013*****
	0.002	*0.002*	*0.002*	*0.002*	*0.002*
PROF	**-0.064*****	**-0.064*****	**-0.063*****	**-0.064*****	**-0.064*****
	0.009	*0.009*	*0.009*	*0.008*	*0.008*
CRISIS				-0.001	-0.001
				0.003	*0.003*
Constant	**0.459*****	**0.459*****	**0.455*****	**0.505*****	**0.496*****
	0.015	*0.015*	*0.015*	*0.018*	*0.018*
Number of Observations	49497	49497	49493	45185	45181
Adj. R-Squared	0.745	0.745	0.745	0.752	0.752

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. Dependent variable *TLTA* is the ratio of total liabilities to total assets.*EU* is the EU accession dummy; *EMU* is the EMU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *INT* is lending rates; *GRRGDP* is the growth rate of real GDP;*DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *FFGDP* is the ratio of FDI flows to GDP;*CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. For each variable the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at firm level as in Petersen (2009). *** denotes significant at 1%, ** at 5%.and * at 10%.

Table 5
European Integration and Debt Maturities

	Model 1	Model 2	Model 3	Model 4	Model 5
EU	0.012	0.012	0.012	**0.020***	0.017
	0.011	*0.011*	*0.011*	*0.012*	*0.012*
EMU		**0.014*****		**0.017*****	
		0.004		*0.004*	
EVEMU			0.004		0.007
			0.005		*0.006*
INT				**0.318*****	**0.279*****
				0.074	*0.074*
GRRGDP				**0.259*****	**0.269*****
				0.069	*0.069*
DMGDP				**-0.007****	**-0.007****
				0.003	*0.003*
SMTO				**-0.018*****	**-0.017*****
				0.004	*0.004*
FFGDP				**-0.0142****	**-0.0135***
				0.007	*0.007*
NFATA	**-0.112*****	**-0.111*****	**-0.112*****	**-0.136*****	**-0.136*****
	0.017	*0.017*	*0.017*	*0.017*	*0.017*
SIZE	**-0.043*****	**-0.044*****	**-0.043*****	**-0.039*****	**-0.039*****
	0.002	*0.002*	*0.002*	*0.002*	*0.002*
PROF	**0.017*****	**0.017*****	**0.018*****	**0.013***	**0.012***
	0.006	*0.006*	*0.006*	*0.007*	*0.007*
CRISIS				**0.017*****	**0.018*****
				0.004	*0.004*
Constant	**0.897*****	**0.897*****	**0.896*****	**0.864*****	**0.869*****
	0.016	*0.016*	*0.016*	*0.019*	*0.019*
Number of Observations	49497	49497	49493	45185	45181
Adj. R-Squared	0.724	0.724	0.724	0.733	0.733

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. Dependent variable *CLTL* is the ratio of current liabilities to total liabilities.*EU* is the EU accession dummy; *EMU* is the EMU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *INT* is lending rates; *GRRGDP* is the growth rate of real GDP; *DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *FFGDP* is the ratio of FDI flows to GDP; *CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. For each variable the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at firm level as in Petersen (2009). *** denotes significant at 1%, ** at 5%.and * at 10%.

Table 6
European Integration and Long & Short term debt ratios

Panel A: LTD / TA	Model 1	Model 2	Model 3	Model 4	Model 5
EU	-0.006	-0.006	-0.006	**-0.013***	**-0.012***
	0.006	*0.006*	*0.006*	*0.007*	*0.007*
EMU		**0.007*****		**0.007****	
		0.002		*0.003*	
EVEMU			**0.009****		**0.009****
			0.004		*0.004*
INT				**-0.100****	**-0.094****
				0.043	*0.043*
GRRGDP				-0.033	-0.027
				0.044	*0.044*
DMGDP				**0.003***	**0.004***
				0.002	*0.002*
SMTO				0.001	0.001
				0.002	*0.002*
FFGDP				0.006	0.006
				0.004	*0.004*
NFATA	**0.0754*****	**0.0756*****	**0.0756*****	**0.0907*****	**0.0907*****
	0.011	*0.011*	*0.011*	*0.011*	*0.011*
SIZE	**0.026*****	**0.026*****	**0.026*****	**0.025*****	**0.025*****
	0.001	*0.001*	*0.001*	*0.002*	*0.002*
PROF	**-0.020*****	**-0.019*****	**-0.019*****	**-0.018*****	**-0.018*****
	0.003	*0.003*	*0.003*	*0.004*	*0.004*
CRISIS				0.003	0.003
				0.002	*0.002*
Constant	**-0.023****	**-0.023****	**-0.025*****	-0.014	-0.016
	0.010	*0.010*	*0.010*	*0.012*	*0.012*
Number of obsv.	49497	49497	49493	45185	45181
Adj.R-Squared	0.695	0.695	0.695	0.700	0.700

Panel B: CL / TA	Model 1	Model 2	Model 3	Model 4	Model 5
EU	-0.014	-0.014	-0.014	**-0.021****	**-0.021****
	0.009	*0.009*	*0.009*	*0.010*	*0.010*
EMU		**0.014*****		**0.012*****	
		0.003		0.003	
EVEMU			**0.014*****		**0.011****
			0.004		*0.005*
INT				-0.050	-0.061
				0.055	*0.055*
GRRGDP				-0.074	-0.065
				0.052	*0.052*
DMGDP				-0.003	-0.003
				0.002	*0.002*
SMTO				-0.003	-0.003
				0.003	*0.003*
FFGDP				**-0.010****	**-0.009****
				0.004	*0.004*
NFATA	0.008	0.009	0.009	0.004	0.004
	0.010	*0.010*	*0.010*	*0.011*	*0.011*
SIZE	**-0.012*****	**-0.013*****	**-0.013*****	**-0.012*****	**-0.012*****
	0.002	*0.002*	*0.002*	*0.002*	*0.002*
PROF	**-0.034*****	**-0.033*****	**-0.033*****	**-0.037*****	**-0.037*****
	0.007	*0.007*	*0.007*	*0.006*	*0.006*
CRISIS				**0.010*****	**0.010*****
				0.003	***0.003***
Constant	**0.411*****	**0.410*****	**0.408*****	**0.425*****	**0.425*****
	0.012	*0.012*	*0.012*	*0.015*	*0.015*
Number of obsv.	49497	49497	49493	45185	45181
Adj.R-Squared	0.726	0.727	0.726	0.732	0.732

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. Dependent variables are respectively *LTDTA*, the ratio of long term debt to total assets and *CLTA*, the ratio of current liabilities to total assets.*EU* is the EU accession dummy; *EMU* is the EMU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *INT* is lending rates; *GRRGDP* is the growth rate of real GDP; *DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *FFGDP* is the ratio of FDI flows to GDP; *CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. Panel A presents the results for LTDTA and Panel B presents the results for CLTA. For each variable the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at firm level as in Petersen (2009). In panel A the results for *LTDTA* / TA are presented and in panel B the results for *CLTA*. *** denotes significant at 1%, ** at 5%.and * at 10%.

Table 7
European Integration and Impact of Global Equity Flows

	Model 1	Model 2	Model 3	Model 4
	TLTA	CLTL	LTDTA	CLTA
EU	**-0.034****	0.018	**-0.012***	-0.014
	0.011	*0.011*	*0.007*	*0.010*
EVEMU	**0.018*****	0.009	**0.011*****	**0.013*****
	0.006	*0.006*	*0.004*	*0.005*
GEQY	-0.001	-0.001	**-0.001****	-0.001
	0.001	*0.001*	*0.001*	*0.001*
INT	**-0.262*****	**0.279*****	**-0.106****	-0.030
	0.065	*0.074*	*0.043*	*0.054*
GRRGDP	**-0.548*****	**0.250*****	-0.058	**-0.216*****
	0.072	*0.081*	*0.052*	*0.062*
DMGDP	-0.001	**-0.01*****	0.000	**-0.005****
	0.003	*0.004*	*0.002*	*0.002*
SMTO	**0.008****	**-0.018*****	0.002	-0.004
	0.003	*0.004*	*0.002*	*0.003*
FFGDP	-0.004	**-0.019****	0.000	**-0.012*****
	0.005	*0.008*	*0.003*	*0.005*
NFATA	**0.103*****	**-0.134*****	**0.090*****	0.007
	0.014	*0.017*	*0.011*	*0.011*
SIZE	**0.013*****	**-0.038*****	**0.025*****	**-0.011*****
	0.002	*0.003*	*0.001*	*0.002*
PROF	**-0.063*****	0.011	**-0.017*****	**-0.037*****
	0.008	*0.007*	*0.004*	*0.006*
CRISIS	**0.010*****	**0.022*****	**0.004***	**0.019*****
	0.003	*0.004*	*0.002*	*0.003*
Constant	**0.489*****	**0.868*****	-0.012	**0.417*****
	0.018	*0.019*	*0.012*	*0.015*
Number of Observations	43311	43311	43311	43311
Adjusted R-Squared	0.756	0.737	0.705	0.738

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. *TLTA* is the ratio of total liabilities to total assets; *CLTL* is the ratio of current liabilities to total liabilities; *LTDTA* is the ratio of long-term debt to total assets; *CLTA* is the ratio of current liabilities to total assets; *EU* is the EU accession dummy; *EMU* is the EMU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *INT* is lending rates; *GRRGDP* is the growth rate of real GDP; *DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *FFGDP* is the ratio of FDI flows to GDP; *CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. *GEQY* is the ratio of the stock of portfolio equity assets and liabilities and the stock of direct investment assets and liabilities to GDP. For each variable the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at firm level as in Petersen (2009). *** denotes significant at 1%, ** at 5%.and * at 10%.

Table 8
European Integration and Impact of Foreign Assets and Liabilities

	Model 1	Model 2	Model 3	Model 4
	TLTA	CLTL	LTDTA	CLTA
EU	**-0.033*** **	0.018	**-0.012***	-0.014
	0.011	*0.012*	*0.007*	*0.010*
EVEMU	**0.017*** **	**0.011***	**0.011*** **	**0.013*** **
	0.006	*0.006*	*0.004*	*0.005*
IFIGDP	0.000	**-0.001***	**-0.001***	0.000
	0.000	*0.001*	*0.000*	*0.000*
INT	**-0.260*** **	**0.275*** **	**-0.104****	-0.029
	0.065	*0.074*	*0.043*	*0.054*
GRRGDP	**-0.548*** **	**0.236*** **	-0.064	**-0.220*** **
	0.072	*0.081*	*0.052*	*0.062*
DMGDP	0.001	**-0.011*** **	0.001	**-0.005****
	0.003	*0.003*	*0.002*	*0.002*
SMTO	**0.007****	**-0.017*** **	0.003	-0.004
	0.003	*0.004*	*0.002*	*0.003*
FFGDP	-0.001	**-0.023*** **	0.001	**-0.012****
	0.005	*0.008*	*0.003*	*0.005*
NFATA	**0.104*** **	**-0.135*** **	**0.090*** **	0.007
	0.014	*0.018*	*0.011*	*0.011*
SIZE	**0.013*** **	**-0.037*** **	**0.025*** **	**-0.011*** **
	0.002	*0.003*	*0.002*	*0.002*
PROF	**-0.063*** **	0.011	**-0.017*** **	**-0.037*** **
	0.008	*0.007*	*0.004*	*0.006*
CRISIS	**0.010*** **	**0.023*** **	**0.004***	**0.019*** **
	0.003	*0.004*	*0.002*	*0.003*
Constant	**0.488*** **	**0.870*** **	-0.012	**0.417*** **
	0.018	*0.019*	*0.012*	*0.015*
Number of Observations	43311	43311	43311	43311
Adjusted R-Squared	0.756	0.737	0.705	0.738

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. *TLTA* is the ratio of total liabilities to total assets; *CLTL* is the ratio of current liabilities to total liabilities; *LTDTA* is the ratio of long-term debt to total assets; *CLTA* is the ratio of current liabilities to total assets; *EU* is the EU accession dummy; *EMU* is the EMU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *INT* is lending rates; *GRRGDP* is the growth rate of real GDP; *DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *FFGDP* is the ratio of FDI flows to GDP; *CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. *IFIGDP* is the ratio of the external assets and liabilities to the GDP**.** For each variable the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at firm level as in Petersen (2009). *** denotes significant at 1%, ** at 5%.and * at 10%.

Table 9

Corporate Financing Decisions of EU-15 and EU-NMS firms during European Integration

Panel A	Model 1	Model 2	Model 3	Model 4
	TLTA	CLTL	LTDTA	CLTA
EU	**-0.035*** **	0.000	-0.007	**-0.027*** **
	0.012	*0.013*	*0.007*	*0.010*
EVEMU	**0.015** **	**0.016** **	**0.007***	**0.014*** **
	0.006	*0.006*	*0.004*	*0.005*
INT*EU15	**-0.317*** **	**0.582*** **	**-0.156** **	0.102
	0.100	*0.117*	*0.073*	*0.085*
GRRGDP*EU15	**-0.329*** **	**0.347*** **	-0.015	-0.002
	0.069	*0.078*	*0.052*	*0.060*
DMGDP*EU15	0.002	**-0.008** **	**0.004***	-0.003
	0.003	*0.003*	*0.002*	*0.002*
SMTO*EU15	**0.007***	**-0.012*** **	0.000	-0.001
	0.004	*0.004*	*0.002*	*0.003*
FFGDP*EU15	0.002	**-0.022*** **	**0.008***	**-0.011** **
	0.005	*0.008*	*0.005*	*0.005*
NFATA*EU15	**0.107*** **	**-0.133*** **	**0.093*** **	0.009
	0.015	*0.018*	*0.012*	*0.011*
SIZE*EU15	**0.014*** **	**-0.039*** **	**0.025*** **	**-0.011*** **
	0.002	*0.003*	*0.002*	*0.002*
PROF*EU15	**-0.066*** **	0.011	**-0.019*** **	**-0.039*** **
	0.008	*0.007*	*0.004*	*0.006*
INT*EUNMS	**-0.240*** **	0.033	-0.069	**-0.175** **
	0.093	*0.082*	*0.049*	*0.070*
GRRGDP*EUNMS	**-0.364*** **	0.070	-0.083	**-0.176***
	0.120	*0.144*	*0.083*	*0.100*
DMGDP*EUNMS	**0.033***	-0.017	0.014	0.015
	0.022	*0.034*	*0.022*	*0.023*
SMTO*EUNMS	**-0.0501** **	**-0.0414***	0.009	**-0.0531*** **
	0.026	*0.024*	*0.014*	*0.019*
FFGDP*EUNMS	**-0.0442***	0.032	-0.018	-0.022
	0.024	*0.033*	*0.022*	*0.024*
NFATA*EUNMS	0.013	**-0.185*** **	0.066	-0.065
	0.058	*0.062*	*0.049*	*0.045*
SIZE*EUNMS	-0.030	0.016	0.001	-0.013
	0.047	*0.019*	*0.013*	*0.033*
PROF*EUNMS	-0.005	**-0.0336*** **	**0.0162*** **	**-0.0202*** **
	0.009	*0.009*	*0.006*	*0.008*
CRISIS	0.001	**0.0147*** **	**0.00413***	**0.00942*** **
	0.003	*0.004*	*0.002*	*0.003*
Constant	**0.492*** **	**0.861*** **	-0.017	**0.418*** **
	0.018	*0.020*	*0.012*	*0.015*
Number of Observations	45181	45181	45181	45181
Adjusted R-Squared	0.708	0.686	0.647	0.684

Panel B				
INT	0.569	**0.000*** **	0.325	**0.011** **
GRRGDP	0.801	**0.091***	0.487	0.136
DMGDP	0.156	0.778	0.638	0.442
SMTO	**0.027** **	0.237	0.509	**0.006*** **
FFGDP	**0.0609***	0.116	0.230	0.650
NFATA	0.114	0.419	0.585	0.112
SIZE	**0.038** **	0.598	0.125	0.261
PROF	0.448	0.816	0.139	0.432

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. *TLTA* is the ratio of total liabilities to total assets; *CLTL* is the ratio of current liabilities to total liabilities; *LTDTA* is the ratio of long-term debt to total assets; *CLTA* is the ratio of current liabilities to total assets; *INT* is lending rates; *GRRGDP* is the growth rate of real GDP;*DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *EU* is the EU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *FFGDP* is the ratio of FDI flows to GDP;*CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. All firm specific and macro variables except for dummies are interacted with EU15 (EUNMS) dummy, which takes on value one (zero) if it is an EU-15 country and zero (one) otherwise. In panel B we present p-values for the F-test of equality of coefficients X(EU15)=X(EUNMS), where X represents the firm and macro level variables. For each variable, the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at firm level as in Petersen (2009). *** denotes significant at 1%, ** at 5%.and * at 10%.

Table 10

Capital Structures and Debt Maturities with Interest-bearing Leverage and Debt Maturity Ratios

Panel A	TDTA	SDTD	LTDTA	SDTA
EU	**-0.046*** **	**-0.048** **	-0.006	-0.006
	0.012	*0.020*	*0.006*	*0.008*
NFATA	**0.106*** **	**-0.117*** **	**0.075*** **	**0.040*** **
	0.013	*0.025*	*0.011*	*0.007*
SIZE	**0.0351*** **	**-0.0459*** **	**0.026*** **	**0.009*** **
	0.002	*0.004*	*0.001*	*0.001*
PROF	**-0.069*** **	**-0.030** **	**-0.020*** **	**-0.017*** **
	0.009	*0.014*	*0.003*	*0.003*
Constant	**0.063*** **	**0.793*** **	**-0.023** **	**0.034*** **
	0.015	*0.028*	*0.010*	*0.009*
Number of Observations	44582	42221	49497	50268
Adjusted R-Squared	0.704	0.575	0.695	0.565
Panel B	TDTA	SDTD	LTDTA	SDTA
EU	**-0.045*** **	**-0.048** **	-0.006	-0.006
	0.012	*0.020*	*0.006*	*0.008*
EVEMU	**0.017*** **	-0.005	**0.009** **	**0.008*** **
	0.004	*0.009*	*0.004*	*0.003*
NFATA	**0.107*** **	**-0.117*** **	**0.076*** **	**0.040*** **
	0.013	*0.025*	*0.011*	*0.007*
SIZE	**0.034*** **	**-0.046*** **	**0.026*** **	**0.008*** **
	0.002	*0.004*	*0.001*	*0.001*
PROF	**-0.068*** **	**-0.031** **	**-0.019*** **	**-0.016*** **
	0.008	*0.014*	*0.003*	*0.003*
Constant	**0.060*** **	**0.794*** **	**-0.025*** **	**0.032*** **
	0.015	*0.028*	*0.010*	*0.009*
Number of Observations	44578	42218	49493	50264
Adjusted R-Squared	0.704	0.575	0.695	0.565
Panel C	TDTA	SDTD	LTDTA	SDTA
EU	**-0.049*** **	-0.031	**-0.012** *	-0.009
	0.012	*0.021*	*0.007*	*0.008*
EVEMU	**0.021*** **	-0.002	**0.009** **	**0.009*** **
	0.005	*0.010*	*0.004*	*0.003*
INT	-0.025	**0.333** **	**-0.094** **	0.021
	0.067	*0.139*	*0.043*	*0.043*
GRRGDP	0.025	**0.267** **	-0.027	**0.116*** **
	0.059	*0.127*	*0.044*	*0.038*
DMGDP	**0.005** *	-0.002	**0.004** *	-0.001
	0.003	*0.004*	*0.002*	*0.001*
SMTO	-0.001	-0.002	0.001	**-0.004** **
	0.003	*0.007*	*0.002*	*0.002*
FFGDP	**0.013*** **	0.013	0.006	0.003

	0.004	*0.009*	*0.004*	*0.002*
NFATA	**0.122*** **	**-0.137*** **	**0.091*** **	**0.039*** **
	0.014	*0.027*	*0.011*	*0.007*
SIZE	**0.033*** **	**-0.043*** **	**0.025*** **	**0.009*** **
	0.002	*0.004*	*0.002*	*0.001*
PROF	**-0.063*** **	**-0.038** **	**-0.018*** **	**-0.017*** **
	0.009	*0.015*	*0.004*	*0.004*
CRISIS	**0.007** **	0.001	0.003	**0.007*** **
	0.003	*0.006*	*0.002*	*0.002*
Constant	**0.058*** **	**0.742*** **	-0.016	**0.030*** **
	0.017	*0.035*	*0.012*	*0.010*
Number of Observations	40740	38567	45181	45872
Adjusted R-Squared	0.711	0.581	0.700	0.577

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. *TDTA* is the ratio of total debt to total assets; *SDTD* is the ratio of short term debt to total debt; *LTDTA* is the ratio of long-term debt to total assets; *SDTA* is the ratio of short term debt to total assets; *EU* is the EU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *INT* is lending rates; *GRRGDP* is the growth rate of real GDP; *DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *FFGDP* is the ratio of FDI flows to GDP; *CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. In panels B1-C1 equations are estimated with EMU dummy and in panels B2-C2 equations are estimated with EVEMU. For each variable, the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at firm level as in Petersen (2009). *** denotes significant at 1%, ** at 5%.and * at 10%.

Table 11

Corporate Financing Decisions of Small Firms during European Integration

Panel A	Model 1	Model 2	Model 3	Model 4
	TLTA	CLTL	LTDTA	CLTA
EU	**-0.054***	-0.017	**0.027***	**-0.055****
	0.028	*0.026*	*0.015*	*0.025*
EVEMU	0.023	0.029	**-0.020***	**0.041***
	0.026	*0.030*	*0.012*	*0.022*
INT*EU15	**0.791****	-0.464	**0.439****	0.371
	0.349	*0.350*	*0.182*	*0.285*
GRRGDP*EU15	**-1.004*****	**0.707*****	-0.173	**-0.482****
	0.239	*0.210*	*0.117*	*0.199*
DMGDP*EU15	0.012	-0.010	-0.004	0.018
	0.017	*0.025*	*0.009*	*0.016*
SMTO*EU15	0.016	-0.004	0.006	0.008
	0.011	*0.012*	*0.006*	*0.010*
FFGDP*EU15	**-0.061****	**-0.058*****	**-0.017***	**-0.061****
	0.028	*0.021*	*0.009*	*0.026*
NFATA*EU15	**0.114*****	**-0.151*****	**0.089*****	0.027
	0.034	*0.037*	*0.018*	*0.026*
SIZE*EU15	-0.004	**-0.018*****	**0.007****	**-0.013*****
	0.006	*0.005*	*0.003*	*0.005*
PROF*EU15	**-0.037*****	0.002	-0.004	**-0.027*****
	0.011	*0.009*	*0.004*	*0.009*
INT*EUNMS	-0.154	-0.192	0.013	**-0.299***
	0.215	*0.185*	*0.078*	*0.159*
GRRGDP*EUNMS	**-0.646****	-0.167	-0.111	**-0.489****
	0.303	*0.357*	*0.217*	*0.233*
DMGDP*EUNMS	0.312	0.039	-0.019	0.272
	0.290	*0.390*	*0.195*	*0.246*
SMTO*EUNMS	-0.112	-0.058	0.004	-0.081
	0.098	*0.090*	*0.056*	*0.061*
FFGDP*EUNMS	**1.039****	0.182	0.128	0.677
	0.432	*0.559*	*0.302*	*0.444*
NFATA*EUNMS	0.025	**-0.168***	0.072	-0.046
	0.087	*0.097*	*0.055*	*0.074*
SIZE*EUNMS	0.027	0.002	0.012	0.028
	0.025	*0.018*	*0.008*	*0.020*
PROF*EUNMS	**-0.053*****	**-0.034****	**0.015****	**-0.059*****
	0.019	*0.016*	*0.007*	*0.017*
CRISIS	**-0.021****	**0.040*****	**-0.015*****	0.006
	0.010	*0.011*	*0.005*	*0.009*
Constant	**0.431*****	**0.893*****	-0.014	**0.373*****
	0.040	*0.044*	*0.022*	*0.036*

Number of Observations	9999	9999	9999	9999
Adjusted R-Squared	0.630	0.592	0.515	0.632
Panel B				
INT	**0.019****	0.486	**0.032****	**0.037****
GRRGDP	0.350	**0.033****	0.801	0.980
DMGDP	0.303	0.902	0.942	0.304
SMTO	0.192	0.552	0.971	0.147
FFGDP	**0.011****	0.668	0.631	**0.097***
NFATA	0.343	0.870	0.776	0.347
SIZE	**0.013****	0.314	0.288	**0.009*****
PROF	**0.022****	0.975	**0.093***	**0.011****

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. The firms in the sample are divided into quartiles according to total asset size and the bottom 25th percentile is defined as small firms. *TLTA* is the ratio of total liabilities to total assets; *CLTL* is the ratio of current liabilities to total liabilities; *LTDTA* is the ratio of long-term debt to total assets; *CLTA* is the ratio of current liabilities to total assets; *INT* is lending rates; *GRRGDP* is the growth rate of real GDP; *DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *EU* is the EU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *FFGDP* is the ratio of FDI flows to GDP; *CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. All firm specific and macro variables except for dummies are interacted with EU15 (EUNMS) dummy, which takes on value one (zero) if it is an EU-15 country and zero (one) otherwise. In panel B we present p-values for the F-test of equality of coefficients X(EU15)=X(EUNMS), where X represents the firm and macro level variables. For each variable, the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at firm level as in Petersen (2009). *** denotes significant at 1%, ** at 5%.and * at 10%.

Table 12

Corporate Financing Decisions of Non-Survivor Firms During European Integration

Panel A	Model 1	Model 2	Model 3	Model 4
	TLTA	CLTL	LTDTA	CLTA
EU	**-0.034***	0.090	-0.086	0.090
	0.019	*0.067*	*0.060*	*0.062*
EVEMU	**0.075*****	-0.008	**0.039****	**0.038***
	0.023	*0.022*	*0.015*	*0.023*
INT*EU15	0.682	0.190	0.154	0.805
	0.487	*0.468*	*0.296*	*0.556*
GRRGDP*EU15	**-1.693*****	0.100	-0.201	**-1.338****
	0.504	*0.410*	*0.313*	*0.541*
DMGDP*EU15	0.006	-0.030	0.018	-0.005
	0.025	*0.020*	*0.015*	*0.024*
SMTO*EU15	0.000	0.000	0.000	0.000
	0.000	*0.000*	*0.000*	*0.000*
FFGDP*EU15	0.014	-0.098	0.038	-0.016
	0.097	*0.077*	*0.058*	*0.089*
NFATA*EU15	0.068	-0.011	0.029	0.089
	0.069	*0.065*	*0.040*	*0.071*
SIZE*EU15	**0.027*****	-0.012	**0.010***	0.009
	0.009	*0.009*	*0.005*	*0.009*
PROF*EU15	-0.011	**0.019*****	-0.007	0.002
	0.008	*0.007*	*0.005*	*0.005*
INT*EUNMS	-1.043	0.407	-0.842	-0.979
	0.998	*0.999*	*0.642*	*1.138*
GRRGDP*EUNMS	**3.381*****	0.339	-0.600	**3.091****
	1.183	*1.554*	*0.851*	*1.469*
DMGDP*EUNMS	0.403	0.345	0.154	0.338
	0.284	*0.464*	*0.166*	*0.409*
SMTO*EUNMS	0.000	0.001	0.000	0.000
	0.001	*0.001*	*0.001*	*0.001*
FFGDP*EUNMS	-0.375	0.312	**-0.857***	-0.330
	0.473	*1.009*	*0.489*	*0.886*
NFATA*EUNMS	0.054	0.354	-0.239	0.033
	0.184	*0.455*	*0.288*	*0.336*
SIZE*EUNMS	0.013	-0.035	-0.027	0.038
	0.050	*0.078*	*0.064*	*0.059*
PROF*EUNMS	**-0.329****	0.395	-0.151	0.550
	0.158	*0.454*	*0.248*	*0.546*
CRISIS	**-0.103****	**0.088****	**-0.058****	-0.042
	0.049	*0.039*	*0.028*	*0.046*
Constant	**0.405*****	**0.678*****	**0.126***	**0.184****
	0.062	*0.089*	*0.073*	*0.089*

Number of Observations	2578	2578	2578	2578
Adjusted R-Squared	0.768	0.729	0.702	0.709
Panel B				
INT	0.174	0.863	0.213	0.220
GRRGDP	**0.000*****	0.879	0.676	**0.007*****
DMGDP	0.110	0.353	0.357	0.337
SMTO	0.770	0.264	0.692	0.463
FFGDP	0.383	0.644	**0.042****	0.689
NFATA	0.947	0.379	0.306	0.860
SIZE	0.761	0.745	0.519	0.601
PROF	**0.019****	0.340	0.501	0.246

The data is gathered from the Compustat Global Industrials and Commercials database and is composed of the balance sheet and income statements for the companies in each country from 1996-2009. Non-survivor companies are defined as companies who are inactive for one of the following reasons: bankruptcy, liquidation, reverse acquisition, leveraged buyout, or the company no longer files with the SEC. *TLTA* is the ratio of total liabilities to total assets; *CLTL* is the ratio of current liabilities to total liabilities; *LTDTA* is the ratio of long-term debt to total assets; *CLTA* is the ratio of current liabilities to total assets; *INT* is the lending rates; *GRRGDP* is the growth rate of real GDP; *DMGDP* is the deposit money bank assets to GDP ratio; *STMO* is the stock market turnover; *EU* is the EU accession dummy; *EVEMU* is the foreign exchange based EMU indicator; *FFGDP* is the ratio of FDI flows to GDP; *CRISIS* is the crisis dummy; *NFATA* is the net fixed assets to total assets ratio; *Size* is the log of total assets and *Profitability* is the ROA ratio. All firm specific and macro variables except for dummies are interacted with EU15 (EUNMS) dummy, which takes on value one (zero) if it is an EU-15 country and zero (one) otherwise. In panel B we present p-values for the F-test of equality of coefficients X(EU15)=X(EUNMS),.where X represents the firm and macro level variables. For each variable, the first row is the beta coefficients and the second row is heteroskedasticity-consistent standard errors clustered at the firm level as in Petersen (2009). *** denotes significant at 1%, ** at 5%.and * at 10%.