The Market for Corporate Control and Corporate Governance Regulation in Europe

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PROEFSCHRIFT

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To my sister Tatiana

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Tilburg, November 2006

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CHAPTER 1.

INTRODUCTION

There are two polar systems of corporate governance: the shareholder-based system and the blockholder-based system. The former prevails in the UK, US and the Commonwealth countries, and relies on legal rules largely resulting from case law and on the effective legal enforcement of shareholder rights. The blockholder-based system of Continental Europe relies on codified law and emphasizes rules protecting stakeholders such as creditors and employees. The two systems differ not only in terms of the rationale behind their legal rules, but also in terms of their ownership and control. Most Continental European companies are characterized by majority or near-majority stakes held by one or few investors. In contrast, the Anglo-American system is characterized by dispersed equity. A growing literature advocates that the corporate governance system influences economic behavior and the governance of firms, which have impact on the cost of capital, corporate performance, and the distribution of benefits among corporate stakeholders (e.g. La Porta et al., 1997, 2002; Mork et al., 2000; and Levine, 1998, 1999). This raises the question as to whether and to what extent one can transpose the insights and findings of the US and UK empirical corporate finance literature to the European one.

The two main constituents of any corporate governance system are corporate governance regulation and the market for corporate control. Their impact on economic growth, the development of markets, and the governance of firms is widely studied both theoretically and empirically. However, empirical research in this field remains mostly confined to the UK and US and there is little known about the effects of takeover market and corporate legislation in Continental Europe.

The aim of this thesis is twofold. First, we provide a comprehensive overview of the market for corporate control and corporate governance regulation in European countries and document their evolution during the past 15 years. The second purpose is to investigate the impact of corporate takeovers and regulatory environment in European countries on companies' profitability and the choice of financing sources. We document that there substantial differences between Anglo-American and Continental European markets for corporate control and legal systems and these differences have significant impact on economic growth, the development of markets, and the governance of firms. The overall analysis is presented in this thesis in six chapters.

Chapter two of the thesis is a literature overview titled 'The History of M&A activity Around The World: A Survey of Literature'. It focuses on the cyclical wave pattern the market for corporate control exhibits and addresses questions such as: Why do we observe a systematic rise and fall in M&A activity over time? Why do corporate managers herd in their takeover decisions? Is takeover

activity fuelled by capital market developments? What caused the formation of conglomerate firms in the wave of the 1960s and their de-conglomeration in the waves of the 1980s and 1990s? Why do we observe time- and country-clustering of hostile takeover activity? And finally, does a transfer of control generate shareholder gains?

Chapter three provides a comprehensive overview of the European market for corporate control during 1990-2001. It characterizes the main features of the domestic and cross-border corporate takeovers involving European companies in the period 1993-2001 and contrasts them to those of takeovers in the second takeover wave of 1984-1989. We provide detailed information on the size and dynamics of takeover activity in 28 Continental European countries and the UK and Ireland.

The material of the third chapter has also further developed into the fourth chapter 'The Performance of The European Market for Corporate Control: Evidence From The 5th Takeover Wave', in which we examine market reaction to takeover announcements facing European companies in 1990-2001 and investigate the reaction' determinants. We find that European M&As are expected to create takeover synergies since their announcements trigger substantial share price increases. However, most of the takeover gains are captured by the target firm shareholders. We establish that the characteristics of the target and bidding firms and of the bid itself have a significant impact on takeover returns. While some of our results have been documented for other markets of corporate control (e.g. US), a comparison of the UK and CE M&A markets reveals that the corporate environment is an important factor affecting the market reaction to takeovers: (i) In case a UK firm is taken over, the abnormal returns exceed those in bids involving a CE target. (ii) The presence of a large shareholder in the bidding firm has a significantly positive effect on the takeover returns in the UK and a negative one in Continental Europe. (iii) Weak investor protection and low disclosure environment in Continental Europe enable bidding firms to invent takeover strategies that allow them to act opportunistically towards target firm's incumbent shareholders; more specifically, partial acquisitions and acquisitions with undisclosed terms of transaction.

Chapter five investigates the sources of transaction financing in European corporate takeovers launched during the period 1993-2001 (the fifth takeover wave). While the means of payment in takeovers has been a focal point in the takeover literature, what has been ignored is the analysis of how the takeover bid is financed and what its impact is on the expected value creation of the takeover. Using a unique dataset, we show that the external sources of financing (debt and equity) are frequently employed in takeovers involving cash and mixed payments. Acquisitions with the same means of payment but different sources of transaction funding are quite different. For instance, the market reaction to the announcements of acquisitions fully paid with cash but financed by equity issues is similar to the market reaction to the announcements of acquisitions fully paid with equity. Moreover, a negative price revision follows the announcement of any corporate takeover involving equity financing (including cash-paid and mixed-paid takeovers). In contrast, this

price correction that takes place subsequent to the debt-financed bids is insignificant. The multinomial logit and nested logit analyses show that the decisions regarding the payment method and sources of takeover financing (conditional on the chosen means of payment) do not coincide. Instead, these decisions are made to solve different problems. We also document that the financing choices are very sensitive to the differences in the legal environment (regarding shareholder, creditor and minority shareholder protection as well as corporate transparency) across countries.

Chapter six focuses on the regulatory environment surrounding corporate takeovers. This chapter provides a detailed description of the takeover regulation provisions in European countries and their evolution over the last 15 years. I investigate whether the recent reforms of takeover regulation in Europe are leading to a harmonization of the national legislations. With the help of 150 corporate governance lawyers from 30 European countries, I collected the main changes in takeover regulation. I assess whether a process of convergence towards the Anglo-(American) corporate governance system has been started and find that this is the case. I make predictions as to the consequences of the reforms for ownership and control. However, I find that, while in some countries the adoption of a unified takeover code may result in dispersed ownership, in others it may further consolidate the blockholder-based system. The paper is published in Oxford Review of Economic Policy (2005).

The final, seventh, chapter 'A Corporate Governance Index: Convergence and Diversity of National Corporate Governance Regulations' has further developed the analysis of regulatory environment in Continental Europe and the UK. In this chapter we provide a detailed analysis of corporate governance regulatory systems and their evolution over the past 15 years. We construct a number of corporate governance indices, which capture the various potential agency conflicts between shareholder and managers, between majority and minority shareholders, between shareholders and bondholders etc. The 15-year time series of constructed indices and large country-coverage (32 European countries and the US) enables us to draw conclusions about the convergence of corporate governance regimes across the countries.

CHAPTER 2.

THE HISTORY OF M&A ACTIVITY AROUND THE WORLD: A SURVEY OF LITERATURE

1. Introduction

It is now a well-known fact that mergers and acquisitions (M&As) come in waves. Golbe and White (1993) were among the first to empirically confirm the cyclical pattern of M&A activity. Thus far, five obvious waves have been examined in the literature: those of the early 1900s, the 1920s, the 1960s, the 1980s, and the 1990s. Of these, the most recent wave was particularly remarkable in terms of size and geographical dispersion. For the first time, continental European firms were as eager to participate as their US and UK counterparts, and M&A activity in Europe hit levels similar to those experienced in the US. The figures by Thomson Financial Securities Data are no doubt commanding: the total number of American[1] and European[2] deals amounted respectively to 119,035 and 116,925 over the 1990s, almost four (US) and nine (Europe) times more than during the fourth takeover wave of 1983-1989. This fifth wave is similarly impressive in monetary terms, with total (global) transaction value adding up to around US$20 trillion[3], more than five times the combined total for 1983-89. Since mid-2003, M&A activity has been on the rise since its abrupt decline in 2001, which could well indicate that a new takeover wave is the making. This new hike in takeover activity raises many questions: Why do we observe a systematic rise and fall in M&A activity over time? Why do corporate managers herd in their takeover decisions? Is takeover activity fuelled by capital market developments? What caused the formation of conglomerate firms in the wave of the 1960s and their de-conglomeration in the waves of the 1980s and 1990s? Why do we observe time- and country-clustering of hostile takeover activity? And finally, does a transfer of control generate shareholder gains? We will later find that the answers to these questions are embedded both in economic and regulatory developments.

Some existing surveys on takeover activity gather all available evidence on one particular wave (e.g. Jarrell, Brickley and Netter, 1988; Bruner, 2003). In this chapter, we specifically concentrate on the determinants of M&A activity, and compile the findings for all five waves since the end of the 19th century for the US, the UK as well as Continental Europe. We find that takeover activity is usually disrupted by a steep decline in stock markets and a subsequent period of economic

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[1] These include all takeover bids in which either a bidder or a target, or both are from the US.
[2] These include all takeover bids in which either a bidder or a target, or both are European.
[3] The figure stands for the total value of all domestic and cross-border M&As worldwide.

recession, while we observe considerable heterogeneity in the triggers of takeover activity. Takeovers usually occur in periods of economic recovery. They coincide with rapid credit expansion, which in turn results from burgeoning external capital markets accompanied by stock market booms. The takeover market is also often fuelled by regulatory changes, such as anti-trust legislation in the early waves, or deregulation of markets in the 1980s. Finally, takeover waves are frequently driven by industrial and technological shocks. We also show that managers' personal objectives can further influence takeover activity, to the extent that managerial hubris and herding behaviour increases during takeover waves, often leading to poor acquisitions.

The chapter is organized as follows. In Section 2, we provide a historical overview of takeover waves. Section 3 focuses on the theoretical models that explain the drivers of M&A activity and the clustering thereof. Section 4 reviews the existing empirical evidence on the rise and fall of M&A activity; we distinguish between the rational reasons for takeovers (like technological shocks), and the behavioural reasons (like agency problems, managerial hubris, and market timing). Section 5 concludes.

2. The history of takeover waves

2.1 The early waves of the 1890s and the 1910s-1920s

In the US, the history of takeover waves goes back to the 1890s.[4] O'Brien (1988) argues that the first, so-called Great Merger Wave was triggered by an economic depression, new state legislations on incorporations, and the development of trading in industrial stocks on the NYSE. This first wave was largely characterized, both in the US and Europe, by the consolidation of industrial production. Stigler (1950) describes this consolidation as 'merging to form monopolies'. According to Lamoreaux (1985), these mergers were mainly motivated by the desire of the merging firms to reduce price competition rather than to exploit scale economies. Horizontal integration led to the creation of many giant companies which grabbed the bulk of market power in their respective industries. The Great Merger Wave came to an end around 1903-05, when the equity market crashed. The First World War later kept M&A activity at a modest level until the late 1910s.

The monopolization efforts that marked restructuring activity under the Great Merger Wave raised public concern. Around 1910, this translated into anti-trust legislation both in the US and Europe. Sudarsanam (2003) argues that the enforcement of these anti-trust laws was responsible for

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[4] While the early US merger waves are well documented, reliable evidence about M&As in Europe is only available from the early 1960s for the UK and from the beginning of the 1980s for the Continental Europe. Still, the lack of data and empirical studies about European takeovers prior to the 1960s does not necessarily mean that merger activity was not present in that period. Goergen and Renneboog (2004) suggest that first European merger wave started approximately in 1880 and ended in 1904, parallel with the first US wave although the European wave was smaller than that of the US. As in the US, European M&A activity in that period was fuelled by the radical changes in technology and industrialisation processes.

the onset of the second takeover wave, which started in the late 1910s, continued through the 1920s, and collapsed in 1929 with the stock market crash and the ensuing worldwide depression. As anti-trust policy was aimed at cracking monopolies, dominant firms were broken up and their parts divested. Subsequently, firms focused on expansion through vertical integration. Stigler (1950) assesses the second wave as a move towards an oligopolistic structure, as industries were no longer dominated by one giant firm but by two or more corporations. In contrast to the horizontal mergers of the first wave, which aimed at increasing market power, the horizontal mergers and the resulting holding companies/conglomerates of the 1920s focused on achieving economies of scale[5].

2.2 The wave of the 1950s-1970s.

The worldwide economic depression of the 1930s and the subsequent Second World War prevented the emergence of a new takeover wave for several decades. The third M&A wave took off only in the 1950s and lasted for nearly two decades. It peaked in 1968 and collapsed in 1973, when the oil crisis pushed the world economy into another recession. According to Sudarsanam (2003) the pattern of this third wave was different in the US and the UK: while US takeovers focused on diversification and the development of large conglomerates, transactions in the UK emphasized horizontal integration.[6]

In the US, the beginning of the third M&A wave coincided with a tightening of the antitrust regime in 1950[7]. Shleifer and Vishny (1991) claim that this regulatory reform largely contributed to US firms pursuing diversification objectives when undertaking M&As. The new antitrust regulation made horizontal expansion more problematic, leaving acquisition-minded firms with the only option of purchasing companies outside their own industries. However, Matsusaka (1996) contests this conjecture by demonstrating that countries without a tough antitrust policy, such as Canada, Germany, and France, also experienced diversification waves in the 1960s. A primary reason for conglomerate strategies is given by Sudarsanam (2003): merging for growth[8]. During the 1960s, companies were searching for growth opportunities in new product markets unrelated to their core business in order to enhance company value and reduce earnings volatility. Sudarsanam proposes that new managerial theories such as the multidivisional form (M-form) of organization developed

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[5] Detailed studies of the first and second merger waves can be found in e.g. Eis (1969), Markham (1955), Nelson (1959), Stigler (1950), Thorp (1941), and Weston (1961).

[6] Fairburn (1989) suggests that the industrial policy adopted in the UK during the 1960s was responsible for the high frequency of horizontal mergers in the 1960s. In 1964, the British government introduced a new policy promoting the creation of "national champions" which would be able to compete on world markets. The Industrial Reorganization Corporation (IRC) was founded to assist mergers of firms in the same line of business. The IRC could exempt merging firms from the antitrust scrutiny. In the following decade (1970s), the policy to promote national champions was abandoned and the focus was on conglomerate integration as in the US.

[7] In 1950, the Celler-Kefauver Act amended Section 7 of the 1914 Clayton Act to prevent anticompetitive mergers.

[8] See also Gort (1962), Rumelt (1974), Meeks (1977), Steiner (1975).

by Chandler (1962) provided much inspiration for managers to seek growth objectives through conglomerates mergers.

Several authors starting with Williamson (1970) provide alternative explanations for the diversification wave observed in the US. First, diversification strategies may help sidestep imperfections in the external capital markets. Bhide (1990) states that capital markets in the 1960s could not be relied upon to allocate resources efficiently. Hubbard and Palia (1999) add that 'relative to the current period, there was less access by the public to computers, databases, analyst reports and other sources of company-specific information; there were fewer large institutional money managers; and the market for risky debt was illiquid. As access to external funds was often severely limited, companies tried to overcome fund-raising problems by developing internal capital markets. Better monitoring, informational advantages, reduced costs of capital, and improved resource allocation were believed to be the benefits of such internal capital markets. Furthermore, as the conglomerate structure allowed the reduction of earnings variability (Lewellen, 1971) and the risk of bankruptcy (Higgins and Schall, 1975; Shleifer and Vishny, 1992), a higher level of leverage could be sustained.

Another explanation for diversification through takeovers is the 'managerial synergy' theory (Matsusaka, 1991). Managerial synergies are obtained if the expertise of the target management is complementary to that of the acquiring firms. A distinctive feature of M&A activity in the 1960s was that the number of acquisitions where the bidder retained the target management was high. Matsusaka (1993) interprets this as evidence supporting the managerial synergy theory, which assumes that the managerial labour market in the 1960s was riddled with inefficiencies, costly enough to force companies to find managerial talent via the expensive mechanism of the takeover market.

Shleifer and Vishny (1991) contribute to the debate on the drivers of the conglomerate takeover wave by asserting that the third merger wave was also largely driven by the personal objectives of managers. They consider diversification as the outgrowth of agency problems between managers and shareholders. Likewise, Amihud and Lev (1981) suggest that managers diversify in order to decrease their companies' earnings volatility, which enhances corporate survival and protects their own positions. In addition, if the managerial compensation scheme is based on growth benchmarks, managers are incentivized to pursue diversifying acquisitions (possibly at the expense of corporate value). Therefore, Jensen (1986) argues in favour of returning free cash flow to shareholders, rather than overinvesting in value-destroying projects that foster diversification. The common feature of the agency models is that managers forgo the value maximization objective and acquire (unrelated) businesses in order to pursue their personal interests.[9]

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[9] This is also in line with Donaldson and Lorsch (1993), Donaldson (1994), and Jensen (1986, 1993) who argue that, prior to the 1980s, managers had insufficient incentives to focus on shareholder concerns.

Some empirical evidence seems to contradict the agency view. Markets were sometimes found to react consistently positively to diversification announcements. This suggests that markets looked favourably upon some diversification strategies, and did not seem to oppose (or be aware of) acquisitions associated with potentially high agency costs.

In sum, the above studies show that there is no unique explanation for the third wave of mergers and acquisitions, or its peculiar diversification pattern observed in the US[10]. Unrelated diversifications in the 1960s are attributed to aggressive antitrust regulation, underdeveloped external capital markets, weak shareholders control mechanisms, and inefficiencies in the labour market, along with political, economic, social and technological developments.

2.3 The wave of the 1980s

The fourth takeover wave started in 1981, when the stock market had recovered from the preceding economic recession, and ended in 1989. The wave was set off by changes in antitrust policy, the deregulation of the financial services sector, the creation of new financial instruments and markets (e.g. the junk bond market), as well as technological progress in the electronics industry. The market for corporate control was characterized by an unprecedented number of divestitures, hostile takeovers, and going-private transactions (leveraged buyouts (LBOs) and management buyouts (MBOs)).

Bhagat et al. (1990) and Shleifer and Vishny (1991) explain how the fourth takeover wave emerged with the reversal of the previous wave's inefficient unrelated diversifications. A less stringent antitrust environment, more competitive capital markets, and improved shareholder control mechanisms stimulated companies to de-diversify and refocus on core business (Blair, 1993). Moreover, when companies failed to recognize the flawed nature of their diversification strategies, or were not fast enough to refocus their operations, hostile raiders were ready to do the restructuring job for them.

Supporters of the internal capital market explanation for the conglomerate wave of the 1960s argue that, as a consequence of economic, technological, and regulatory changes during the 1980s, the external capital market had become more efficient. Hence, the cost of external finance had fallen such that internal capital markets became an unnecessary and costly configuration (Bhide, 1990). The presence of an inefficient internal capital market was often considered to be responsible for the conglomerate discount (Lang and Stulz, 1994; Berger and Ofek, 1995).

In addition to the problems induced by internal capital markets, the earlier conglomerate wave had become associated with a number of further issues, such as rent-seeking behaviour by divisional managers (Scharfstein and Stein, 2000), bargaining problems within the firm (Rajan,

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[10] For additional explanations of the motives underlying the third takeover wave: see the early studies e.g. Lintner (1971), Lynch (1971), Markham (1973), Nelson (1966), Reid (1968), and Steiner (1975).

Servaes and Zingales, 2000), or bureaucratic rigidity (Shin and Stulz, 1998). These disadvantages of diversification may have outweighed the alleged advantage of internal cross-subsidisation and forced companies to re-organize in the 1980s.

Another reason why the conglomerate structure was increasingly perceived to be inefficient was its inflexibility to react to industry shocks (Mitchell and Mulherin, 1996).[11] These shocks were caused by deregulation, political events, social policy changes, and economic factors. For instance, the air transport and broadcasting sectors were deregulated in the early 1980s, when long-standing barriers for mergers and consolidation were removed. After the introduction of a new reimbursement policy in 1983 in the US, the medical services and pharmaceuticals sectors experienced intense takeover activity to take advantage of cost reductions. A wave of corporate restructuring in the oil sector was triggered by political events such as the OPEC embargo in 1973 and the Iranian oil export cut-off in 1979. Restructuring in the food-processing sector was triggered by the low rate of population growth in the 1980s, which pushed firms to sell excess capacity.

Holmström and Kaplan (2001) conclude that a combination of industrial shocks, the limiting of managerial discretion, and the trend of deconglomeration were responsible for the takeover wave of the 1980s. The surge in takeover activity was further catalysed by the intensifying disclosure of corporate information to the market, which also forced companies to focus on the maximization of shareholder value. According to Donaldson (1994), the prime driver of takeovers in the de-diversification wave was the emergence of empowered institutional investors and the shift in power from corporate stakeholders to shareholders. This was also reflected by the high incidence of hostile takeovers. Holmström and Kaplan (2001) regard hostile takeovers and going-private transactions of the 1980s as the main corporate governance mechanisms necessary to reduce agency-related corporate inefficiencies. However, the success of these governance devices and costly forms of corporate restructuring would not have been possible without the increased availability of debt financing, through banks and the liquid junk bond market. Not only did increased leverage make more M&A deals possible, but also inflicted more discipline on management and reduced the agency problems associated with high free cash flow.

2.4 The wave of the 1990s

The fifth takeover wave started in 1993. Like all previous waves, it surged along with an economic boom and halted as a consequence of the equity market collapse in 2000. The magnitude of the fifth wave (1993-2001) is unprecedented both in terms of takeover value and the number of M&A deals. According to the Thomson Financial Securities Data, during this wave, 119035 M&A deals were recorded in the US and 116925 deals in Europe (including the UK). By contrast, there

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[11] See Jensen (1986), Morck, Shleifer and Vishny (1988), Jensen (1993), Mitchell and Mulherin (1996), Andrade and Stafford (2004), and Harford (2004).

were only 34494 and 12729 such transactions in the US and Europe, respectively, during the fourth merger wave (1983-89). The fifth wave is impressive in monetary terms as well, since its total (global) value added up to US$20 trillion, more than five times the combined total of the fourth wave.

A first striking feature of the fifth takeover wave is its international nature. Remarkably, the European wave was about as large as its US counterpart, and an Asian takeover market also emerged. Second, a substantial proportion of M&As were cross-border transactions, reflecting the growing globalisation of product, services, and capital markets. Domestically-oriented companies resorted to takeovers abroad as a means to survive the tough international competition created by global markets. Expansion abroad also allowed companies to exploit differences in tax systems, and to capture rents resulting from market inefficiencies such as national controls over labour markets. Third, trends such as deregulation and privatisation triggered cross-border acquisitions in the financial, utilities, and telecom sectors. Fourth, the exorbitant costs of R&D research and the fact that its payoff only emerges over the long run gave further boost to international takeovers in high tech industries, biochemistry, and pharmaceutics.

The Thomson Financial Securities Database shows that during the fifth wave, both cross-border and domestic M&A activity tended to occur between firms in related industries. Although the number of divestitures in the 1990s remained high, their proportion in M&A deals gradually decreased. The dominance of industry-related (both horizontal and vertical) takeovers and the steady decline in the relative number of divestitures during the fifth wave indicate that the main takeover motive was not specialization or corporate restructuring but rather growth to participate in globalized markets. Andrade and Stafford (2001) confirm that the takeover activity during the fourth wave is predominantly motivated by industry restructuring in response to emerging excess capacity, whereas the 1990s merger activity appears to involve more frequently companies with high capacity utilization.

Expansion, often taking the form of mega-deals, requires substantial financing and forces cash-constrained firms to issue equity or debt. Shleifer and Vishny (2003) emphasize the relation between the bull market of the 1990s and the overwhelming use of equity as a method of payment in M&A deals. Overvalued bidders used equity to buy real assets of undervalued (or less overvalued) targets. This suggests that the so-called mispricing premium was an important source of value in M&As of this period. In addition, the market for corporate bonds grew rapidly in the 1990s. Low bank interest rates and a more receptive bank attitude toward risky borrowers also facilitated deal making during the merger wave. Jensen (2004) also associates M&A activity in the late 1990s with the financial markets boom. He describes how overvaluation pushed managers to make takeover bids even if these deals did not create synergistic or other benefits: when the market values the stock price above the future performance expected by management, it is encouraged to undertake

acquisitions. This merger-for-growth trap is nicely illustrated by DeJong et al. (2005) for the Dutch multinational Ahold.

The number of hostile bids[12] in the UK and US significantly fell in the 1990s compared to the takeover wave of the 1980s, according to the Thomson Financial Securities Database. This decline in hostile takeover activity can also be attributed to the bull market, as target shareholders are more prone to accept a takeover bid when their shares are overpriced. A second important reason for the reduction in hostile takeover activity was the regulatory changes that took place in the late 1980s. The increasing use of anti-takeover measures in some US states such as Delaware made hostile acquisitions virtually impossible. Holmström and Kaplan (2001) also suggest a third reason: that hostile takeovers are no longer needed as a corporate governance device, given that there are a sufficient number of alternative governance mechanisms (e.g. stock options, shareholder activism, non-executive director monitoring) that encourage management to focus on shareholder value, and to voluntarily restructure when necessary. It is notable that in contrast to the UK and US, the number of hostile bids in Continental Europe actually increased over the 1990s. Interestingly, hostile takeover activity emerged even in countries where it had been completely absent.

Overall, it is widely believed that the globalisation process, technological innovation, deregulation and privatisation, as well as the financial markets boom spurred the fifth M&A wave. The recent literature suggests that takeovers were mainly preoccupied with cost cutting, expanding into new markets, or exploiting a mispricing premium. However, an increasing number of empirical studies provide evidence that many M&A deals undertaken in the late 1990s actually destroyed value (e.g. Moeller et al., 2005). This confirms that many of those transactions suffered from the agency problem induced by the overvaluation of equity.

2.5 A new wave?

Since mid-2003, takeover activity (including a large number of cross-border deals) has again picked up in the US, Europe, and Asia continuing the international industry consolidation of the 1990s. The takeover wave coincides with the gradual recovery of economic and financial markets after the downturn that began in 2000. According to the Thomson Financial Database, the volume of M&As rose by 71% in 2004 compared to 2002. In 2004, the acquisitions by US companies amounted to US$ 1.1 trillion from US$ 517 billion in 2002. European M&A activity follows a similar trend. The value of takeover announcements by European bidders totalled to US$ 758 billion in 2004 overtaking the value of US$ 517 billion in 2002. Since the beginning of 2002 until the middle of 2005, cross-border acquisitions account for more than 43% of the total value of all M&As

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[12] One should be cautious about statements on the degree of hostility: Schwert (2000) shows that the definition and number of hostile takeovers vary across databases.

by European bidders and 13% of the total value of all M&As by American firms.[13] The annual volume of cross-border takeovers by Chinese companies has grown spectacularly over the last 3 years, from about US$ 3 billion in all of 2002 to almost US$ 19 billion in the first half of 2005.

The telecom sector experiences an intensive M&A activity. At least 10 takeovers between the largest European telecom operators[14] have been consummated in the first part of 2005, 8 of which were cross-border affaires. American telecom companies are consolidating[15] as well, although they remain focused on domestic market. Apart from the telecom sector, hectic takeover activity is seen in the oil and gas, retail, pharmaceutical, utilities, and sport clothes industries.[16]

In contrast to the 1990s and 1980s, the recent hostile takeover activity in the US and Europe is at its lowest level. Thomson Financial Database records 28 contested takeover attempts launched by US acquirers in 2002-2005. In contrast, there were 229 American hostile bids in the first three years of the previous wave (1993-1996), and 217 in the beginning of the fourth wave (1983-1986). Similarly, the European acquirers seem to prefer friendly negotiations to the aggressive bidding. Since the beginning of 2002, the total number of hostile bids in Europe amounts to 32 (17 of which are in the UK), notably less than 106 and 62 bids during the periods 1993-96 and 1983-86, respectively. Also, hostile takeovers emerge in Japan[17] and China.[18]

Although it is early to draw conclusions on the driving forces behind this new wave of takeovers, some trends are already emerging. First, growth in takeover activity is largely being fed by transactions that had been delayed in the preceding period due to the downturn of financial markets and increased uncertainty following the September 11th terrorist attacks. Second, companies that have been unable to digest the market crash of 2000 have, or may become potential targets. The supply of potential target firms has also been increased by some governments selling important share

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[13] The number of cross-border acquisitions account for almost 40% of the all bids made by European bidders and nearly 20% of the bids made by US firms.

[14] These include, a merger between KPN and Telfort (both the Netherlands); acquisition of Meteor by Eircom (both Ireland), of Wind (Italy) by an Egyptian consortium, of Song (Sweden) by TDC (Denmark), of Amena (Spain) by France Telecom (France), of Turkcell Iletisim Hizmetleri (Turkey) by TeliaSonera (Sweden), of several Czech and Romanian mobile operators by Vodafone (the UK), and of Cesky Telecom (Czech Republic) by Telefonica (Spain).

[15] Among the largest US bids are takeovers of MCI (the former WorldCom) by Verizon (a former subsidiary spun out of AT&T), and of AT&T by SBC Communications.

[16] In August 2005, Adidas announced the acquisition of Reebok. The market expects that, as a response to the Adidas-Reebok bid, the two firms' industry rival Nike would shortly announce the acquisition of Puma (The Economist, 6 Aug 2005).

[17] An unprecedented hostile takeover battle has been seen in Japan in 2005. Livedoor, a fast-growing Internet firm, has bought a controlling stake in Nippon Broadcasting System (NBS). To dilute the stake of the rival and oppose the bid, NBS issued poison pills. Livedoor launched a lawsuit against NBS. The battle was complicated by an occurrence of a competing bid by Softbank Investment, an affiliate of the Japanese internet empire Softbank, which was publicly believed to be a white knight, although the company's directors denied this (The Economist, 31 Mar 2005). For a discussion on the emerging Japanese hostile takeover market, its drivers, and consequences for regulatory reforms see Milhaupt (2005).

[18] On February 18 2005, China's top Internet company Shanda Interactive Entertainment announced that it had acquired a stake of 19.5% and is going for control in Sina.com, one of the biggest web portal in the country. In response, Sina issues a poison pill to dilute Shanda's acquired stake. Both the aggressive bidding strategy and the target firm opposition to the bid were unprecedented for the Chinese industry (The Economist, 24 Feb 2005).

stakes in major national companies. This is especially the case in Asia (more specifically in China). Third, the growth in M&As is spurred by the fact that cash-rich firms seek opportunities to expand into new markets. Finally, private equity investments have also soared, in the retail industry in particular.

2.6 Summary of historical overview

This historical overview has demonstrated that each M&A wave is characterised by a different set of underlying motives. A number of common factors can nonetheless be found. First, all waves occur in periods of economic recovery (following a market crash and economic depression caused by war, an energy crisis etc.). Second, the waves coincide with periods of rapid credit expansion and booming stock markets. It is notable that all five waves ended with the collapse of stock markets. Hence, it seems that a burgeoning external capital market is an indispensable condition for a takeover wave to emerge. Third, takeover waves are preceded by industrial and technological shocks often in form of technological and financial innovations, supply shocks (such as oil price shocks), deregulation, and increased foreign competion. Finally, takeovers often occur in periods when regulatory changes (e.g. related to anti-trust or takeover defence mechanisms) take place.

3. Theoretical explanations for M&A clustering

In the previous section, we described the trends in and main characteristics of M&A activity for a period extending over more than a century. We now turn to the theoretical models which attempt to capture the motives for takeovers.

Broadly speaking, the theories on takeover waves can be classified into three groups. First, neoclassical models suggest that takeover waves emerge due to industrial, economic, political, or regulatory shocks. A second group of models propose that takeover clustering is driven by self-interested managerial decisions, based on herding, hubris, and agency problems. Finally, a third group of more recent models attribute takeovers to the development of capital markets, and propose that waves occur as a result of (over)valuation-related timing by management.

3.1 Neoclassical models

The neoclassical explanation of M&A-clustering hinges on rational economic factors that motivate many firms to restructure simultaneously. This view dates back at least to Coase (1937), who argues that takeover activity is a response to technological change. Gort (1969) adds economic disturbances such as a disequilibrium in product markets, which stimulates whole industries to

restructure. Jensen (1993) states that technological and supply shocks result in excess productive capacity in many industries that ought to reduce this excess capacity by way of mergers. Building on the insights of Gort (1969), Jovanovic and Rousseau (2001, 2002) develop the Q-theory of takeovers. The theory proposes that economic and technological change causes a higher degree of dispersion of corporate growth opportunities (measured by Q-ratios). This triggers the reallocation of capital to more productive firms and more efficient management.

Sudarsanam (2003) develops a taxonomy which contains the above theories but also incorporates the Political, Economic, Social, and Technical dimensions (PEST) influencing M&As. As examples of such changes, he cites tax reforms, reinforcement of anti-trust rules, deregulation, and privatisation. This comprehensive overview explains why we observe different patterns of takeover activity such as the trend of monopolization in the early 1900s, the creation of holding companies in the 1920s, the diversification trend in the 1960s, deconglomeration in the 1980s, and the process of globalisation in the 1990s.

Rhodes-Kropf and Robinson (2004) extend the incomplete contracting models of Hart and Moore (1990) and Hart (1995). This literature predicts that a takeover occurs when there are significant complementarities between firms' assets, and when a takeover hold-up problem and underinvestment result from incomplete contracting.[19] Rhodes-Kropf and Robinson claim that shocks augmenting the assets' complementarities across firms increase takeover activity.

A small formal literature explains the emergence of takeover waves by a combination of industry-specific or regulatory shocks, and the availability of sufficiently low cost capital. For instance, Harford (1999) stresses the importance of a reduction in financial constraints: his model predicts that M&As occur when companies build up large cash reserves or when their access to external financing is eased. As this is most likely to happen in periods of capital market growth, takeover clustering occurs in such periods.

The models in this section explain takeover clustering by industry, by country, and through time, by way of considering the simultaneous responses of firms to specific shocks, namely the competition for the best combination of assets. Alternatively, takeover waves can result from the fact that firms respond sequentially to the actions of their competitors. Thus, a series of successful M&As wets other firms' appetite to do a takeover, whereas a series of unsuccessful takeovers leads to the decline in takeover activity (Persons and Warther, 1997).

3.2 Hubris, herding, and agency problem models

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[19] When two parties have complementary projects, they must reach agreement to get a sufficient return on their individual projects. Given that incomplete contracts cannot deal with possible opportunistic behaviour by either party, a merger may eliminate such behaviour and any holdup problems resulting from a costly bargaining process.

As the empirical literature concludes that a significant proportion of M&As destroys corporate value, some theoretical models attempt to explain this phenomenon by including irrational managerial decision-making or managerial self-dealing in the M&A process.

Jensen (1986, 2004) gives an agency explanation for the existence of value-destroying takeovers: the overcapacity generated by industrial shocks or by booming financial markets. Managerial hubris is the key element in Roll's (1986) explanation of value-destroying takeovers: overconfident managers overestimate the creation of synergetic value. This hubris hypothesis in combination with herding[20] is also able to explain the cyclical patterns in M&A activity. Herding predicts that firms tend to mimic the actions of a leader. In the case of a takeover wave, the first successful takeovers encourage other companies to undertake similar transactions. Since the main motive for the other companies is to mimic the actions of the leader rather than take action based on a clear economic rationale, most of their takeovers suffer from managerial hubris. Hence, the combination of herding and hubris predicts that inefficient takeovers follow efficient ones.

Auster and Sirower (2002) develop a behavioural explanation for takeover waves. They argue that these are composed of three distinct stages: development, diffusion, and dissipation. The interaction between macro factors and a competitive environment determines the way a takeover wave develops. First, changes in the macro and competitive environment augment the uncertainty and increase the likelihood that takeovers occur. Second, reports of positive results of initial takeovers promote M&A transactions. In the third stage of a takeover wave, limited information processing, hubris, and managerial self-interest fuel the diffusion of M&As. Once it becomes clear to the market that M&A activity yields negative economic outcomes, takeover activity declines rapidly.

In contrast, the model by Gorton, Kahl, and Rosen (2000) shows that value-destroying takeovers can also precede a wave of profitable ones. Key in this model is that managers prefer keeping their firms independent. Managers use an active takeover policy as a defensive mechanism in order not to be taken over themselves. The authors conclude that a defensive (and to some extent inefficient) takeover wave may occur when managers anticipate an effective takeover wave in the near future.

3.3 Market timing models

Two recent theoretical papers develop models in which takeover waves result from managerial timing.[21] In line with Myers and Majluf (1984), managers take advantage of a temporary

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[20] Examples of herding models in finance: Scharftein and Stein (1990), Graham (1999), Boot, Milbourn and Thakor (1999). Devenow and Welch (1996) provide an excellent survey of papers on rational herding in financial markets.

[21] For a well-structured survey of literature on market timing and other behavioral corporate finance phenomena see Baker, Ruback and Wurgler (2004).

overvaluation of equity during financial market booms, to use it as cheap currency for acquiring real assets.

Shleifer and Vishny (2003) argue that clustering in takeover activity occurs because financial bull markets tend to overvalue stocks in the short run, and the degree of overvaluation varies significantly across companies. Hence, the management of the bidding firm takes the opportunity to buy the real assets of a less overvalued target firm using their own overvalued equity. The bidder takes advantage of the mispricing premium over the longer term, when the overvaluation will be corrected. The model hinges on the assumption that target managers maximize their own short-term private benefits. This explains why they are willing to accept an all-equity bid even if it is at the detriment of (long-term oriented) target shareholders. Overall, the model predicts that takeover waves are pro-cyclical in relation to the stock market value, because managers of the overvalued companies take advantage of the window of opportunity offered by temporary market inefficiencies.

Although the model by Rhodes-Kropf and Vishwanatan (2004) leads to similar predictions, it departs from the previous model in that target managers maximize shareholder wealth and rationally accept overvalued equity in a takeover offer. The reason why target managers accept such an offer results from the fact that uncertainty about takeover gains is correlated with the overall uncertainty in the market. In other words, targets accept all-equity bids, because their managers also tend to overvalue potential takeover synergies as a consequence of overpricing in a soaring equity market. The number of misvalued bids is expected to increase with booming financial markets, when uncertainty about the true value of firms is especially pronounced, and better-informed bidders can exploit their informational advantage at the expense of less-informed targets.

3.4 Summary of theoretical explanations for takeover waves

Takeover activity occurs as a result of external economic, technological, financial, regulatory, and political shocks. When takeovers are a response to such shocks and managers take the shareholders' interests at heart, M&A activity is expected to lead to profit optimisation and shareholder value creation. In contrast, models which explicitly include herding, managerial hubris, and other agency costs allow for the possibility that value destroying takeovers follow M&As which create value.

4. Empirical evidence on the drivers of takeover activity

This section addresses the question of whether or not the theoretical predictions of Section 3 are empirically supported. For this purpose, we survey the existing empirical evidence on M&A profitability for each takeover wave and discuss which motives lead to value creation or destruction.

4.1 Profitability of takeovers

The empirical literature on M&A profitability is extensive. Each takeover wave has inspired academic researchers such that, since the beginning of the 20th century, hundreds of papers have been published on this topic. Several surveys help overview the literature: Jensen and Ruback (1983) on M&As prior to 1980; Jarrell et al. (1988) on the 1980s takeover wave; Bruner (2003) on the 1990s wave; and Sudarsanam (2003) covering studies over several decades in his M&A handbook. In this section, we complement the earlier surveys and focus on new insights.

4.1.1 Benchmarking takeover gains

To determine the success of a takeover, one can take several perspectives. First, we can evaluate M&As from the perspective of the target's shareholders, the bidders' shareholders, or calculate the combined shareholder effect. Second, a wider range of stakeholders is affected by the takeover, e.g. bondholders, managers, employees, and consumers. As the interests of these stakeholders diverge, a takeover may be beneficial for one type of stakeholder but detrimental for other types. Finance theory usually considers shareholder wealth as the primary objective, because shareholders are the residual investors of the company and a focus on shareholder value yields an efficient evaluation criterion.

Event studies analysing short-term shareholder wealth effects constitute the dominant approach in the field since the 1970s.[22] The approach hinges on the assumption that the M&A announcement brings new information to the market, such that investors' expectations about the firm's prospects are updated and reflected in the share price. An abnormal return is equal to the difference between the realized returns and an expected (benchmark) return, which would be generated in case the takeover bid would not have taken place. The most common benchmarks are calculated using asset pricing models such as the market model, or the Fama-French-Cahart four-factor model. A similar approach is applied to assess the long-term shareholder wealth effects of M&As, but this has several disadvantages. First, over longer periods it is more difficult to isolate the takeover effect, as many other strategic and operational decisions or changes in the financial policy with an impact on the share price may have meanwhile arisen. Second, the benchmark performance often suffers from measurement or statistical problems (Barber and Lyon, 1997).[23] Third, most methods rely on the assumption of financial market efficiency, which predicts that the effect of mergers should be fully incorporated in the announcement date returns and not in the long-term abnormal returns. This implies that a negative or positive long-term wealth effect occurs as the

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[22] The first paper to use the event study methodology (albeit in the different context of stock splits) was Fama, Fisher, Jensen and Roll (1969).

[23] See also Fama (1998), Barber et al. (1999), Brav (2000), Brav et al. (2000), and Loughran and Ritter (2000) for a discussion of the various methods. The commonly accepted methodology is the firm-matching approach of Barber and Lyon (1997).

market corrects its initially inefficient predictions. Therefore, if the long-term wealth effect is significant, one could conclude that the analysis of the short-term wealth effect is misleading, as the market is inefficient in the short-run.

Apart from abnormal returns measured over the short and long run, some studies calculate the operating performance of the merging firms. This usually consists of a comparison of accounting measures prior and subsequent to takeover. Such measures include: net income, sales, number of employees, return on assets or equity, EPS, leverage, firm liquidity, profit margins, and others. The Achilles heel of this approach is that operating performance is not only affected by the takeover but also by a host of other factors. To isolate the takeover effect, the literature suggests an adjustment for the industry trend. Alternatively, one could match the M&A sample by size and market-to-book ratio with non-merging companies, and examine whether merging companies outperform their non-merging peers prior and subsequent to the bid.

4.1.2 Short-term wealth effects

The empirical literature is unanimous in its conclusion that takeovers create value for the target and bidder shareholders combined, with the majority of the gains accruing to the target shareholders. The evidence on the wealth effects for the bidder shareholders is mixed; some reap small positive abnormal returns whereas others suffer (small) losses. Table 1 gives an overview of 64 studies that have reported the abnormal returns around takeover announcements. The findings in the table refer to successful domestic M&As between non-financial companies.[24] Panels A, B, and C summarize the evidence related to the third, fourth, and fifth waves, respectively, while panel D presents the results of studies comparing several takeover waves.

Target-firm stockholder return

Table 1 shows that the share prices of target firms significantly increase at and around the announcement of a bid. Eckbö (1983) and Eckbö and Langohr (1989) report the cumulative average abnormal returns (CAARs) of the announcement day and the subsequent day. They show that these CAARs amount to 6% for the US and 16% for France, respectively. Panels B and C of Table A-1 show that the size of the announcement effects is similar for the fourth and fifth takeover wave. Goergen and Renneboog (2004), for example, report that target shareholders in large European takeovers gain 9% on the announcement day during the fifth takeover wave. Andrade, Mitchell and Stafford (2001) test the differences between the target returns of the three most recent takeover waves, and confirm that these differences are not statistically significant.

Schwert (1996) shows that the share price reactions of target shareholders are not limited to the announcement day but commence already 42 working days prior the initial public announcement

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[24] We exclude the studies analysing unsuccessful, financial, and cross-border M&As to enhance comparability across studies.

of the bid. Six studies report that the price run-up is substantial and often even exceeds the announcement effect itself: the run-up amounts to 13.3% to 21.78% over a period of one month prior the bid. These returns imply that the bids are anticipated, and result from rumours, information leakages, or insider trading.

Table A-1. Short-term effects around M&A announcements.

This table presents the market reaction to M&A announcements. The results are for successful domestic takeovers between non-financial firms. The following notation is used.

Types of mergers and acquisitions: T - tender offer, M - merger, MA - M&As, HMA - horizontal M&A, VMA - vertical M&A, RMA - related M&A (non-conglomerate), UMA - unrelated M&A (conglomerate or diversification), A - acquisition, FA - friendly acquisition, HA - hostile acquisition, Stock - all-stock offer, Cash - all-cash offer, Mixed - combination of stock and cash offer, Public (Pub) - Target company is public, Private (Priv) - Target company is private.

Benchmark Return Models: MM - Market model; MAM - Market-adjusted model; CAPM - Capital Asset Pricing model; BMCP -Beta-matched control portfolio (CRSP); FFM - Fama-French Model; VPE -Valuation Prediction Error; PSM - Probability Scaling Method; TTA - Thin-trade adjusted; EV/PA - The ratio of the change in the bidder equity value to the acquisition price; SBM - size and book-to-market ratio matched portfolio, following the Lyon and Barber (1996) methodology. 'Close' refers to the date when the target is delisted from trading on public exchanges

Sample size: T/B/C stands for the number of observations for Target firms/Bidding firms/Combined firms respectively. If the three samples have the same number of observations, only one number is reported.

Significance level: * - significance is not reported; a/b/c - statistical significance at 1%/5%/10%, respectively.

Study, *sample country*	Sample period	Benchmark return model	Event window (days)	Sample size: T/B/C	Type of M&A	CAARs Target, %	CAARs Bidder, %	CAARs Combined, %
Panel A: Third Takeover Wave, 1950s-1973								
Dodd and Ruback (1977), *US*	1958-78	MM	(0, +20)	133/124	TO	+20.89[a]	+2.83[b]	
Kummer and Hoffmeister (1978), *US*	1956-74	CAPM	(0, +20)	50/17	TO	+16.85[a]	+5.20[c]	
Bradley (1980) and Bradley and Jarrell (1980), *US*	1962-77	BMCP	(-20, +20)	161/88	TO	+32.18[a]	+4.36[a]	
Dodd (1980), *US*	1970-77	MM in growth returns	(-20, 0) (-10, +10)	71/60 71/60	M	+21.78[a] +33.96[a]	+0.80 -7.22[b]	
Asquith (1983), *US*	1962-76	BMCP	(-2, 0) (-20, 0)	211/196 211/196	M	+6.20[a] +13.30[a]	+0.20 +0.20	
Eckbö (1983), *US*	1963-78	MM	(-1, +1) (-20, +10)	57/102 57/102	HM	+6.24[a] +14.08[a]	+0.07 +1.58	
Asquith, Bruner and Mullins (1983), *US*	1963-79	BMCP	(-20, 0)	54/214	M	+16.8[a]	+2.80[a]	
Malatesta (1983), *US*	1969-74	MM	(0, +20)	83/256	M	+16.8[a]	+0.90	
Dennis and McConnell (1986), *US*	1962-80	MAM	(-19, 0) (-6, +6)	76/90	M	+16.67[a] +13.74[b]	+1.07 +3.24[a]	
Lang, Stulz and Walkling (1989), *US*	1968-86	MM	(-5, +5)	87	TO	+40.30[a]	+0. 01	+11.31[a]
Eckbö, Giammarino and Heinkel (1990), *US*	1964-82	MM	(0, +20)	92 34 56	Stock Cash Mix		+3.86[a] +0.87 +2.10[a]	
Chatterjee (1992), *US*	1963-86	MM	(0, +20)	436	TO	+22.04[a]	+3.33[c]	
Hubbard and Palia (1999), *US*	1961-70	4 methods, Results for MM	(-5, +5)	392	RMA UMA		+1.61[a] +0.24	

Study, *sample country*	Sample period	Benchmark return model	Event window (days)	Sample size: T/B/C	Type of M&A	CAARs Target, %	CAARs Bidder, %	CAARs Combined, %
Franks, Broyles and Hecht (1977), *UK*	1955-72	MM, TTA	(0, +20)	70	M	+16.0[*]	+4.60[*]	+8.60[*]
Firth (1980), *UK*	1969-75	MM	(0, +20)	434	TO	+28.1[a]	-6.30[a]	
Franks and Harris (1989), *UK*	1955-85	MM, MAM, CAPM Results for MAM, TTA	(0, +20)	1693/1012 121/46	TO M	+24.0[b] +14.8[b]	+1.2[b] -3.6[b]	
Eckbö and Langohr (1989), *France*	1966-82	MM	(0, +5)	90/52	TO-Public	+16.48[a]	-0.29	
Study, *sample country*	Sample period	Benchmark return model	Event window (days)	Sample size: T/ B/ C	Type of M&A	CAARs Target, %	CAARs Bidder, %	CAARs Combined, %

Panel B: Fourth Takeover Wave, 1981-1989

Study, *sample country*	Sample period	Benchmark return model	Event window (days)	Sample size: T/B/C	Type of M&A	CAARs Target, %	CAARs Bidder, %	CAARs Combined, %
Travlos (1987), *US*	1972-81	MM	(-10, +10)	60 100	M-Stock M-Cash		-1.6 -0.13	
Morck, Shleifer and Vishny (1990), *US*	1975-87 1975-79 1980-87 1975-79 1980-87	EV/PA	(-2, +1)	326 34 57 120 115	All MA RMA RMA UMA UMA		-0.70 +1.54 +2.88 +0.23 -4.09[b]	
Franks, Harris and Titman (1991), *US*	1975-84	MM	(-5, +5)	399 156 128 114 93 306	All MA Cash Stock Mixed HA FA	+28.04[a] +33.78[a] +22.88[a] +25.81[a] +39.49[a] +24.57[a]	-1.02[c] +0.83 -3.15[a] -1.18 -1.35 -0.92[c]	+3.90[a] +6.41[a] +0.42 +4.38[a] +8.91[a] +2.41[a]
Servaes (1991), *US*	1972-87	MM	(0, close)	577/307/307 125/77/77	FA HA	+21.89[a] +31.77[a]	-0.16 -4.71	+3.29[a] +5.08[c]
Kaplan and Weisbach (1992), *US*	1971-82	MM	(-5, +5)	209/271/209	M&TO	+26.9[a]	-1.49[a]	+3.74[a]
Healy, Palepu and Ruback (1992), *US*	1979-84	MAM	(-5, close)	50	Largest A	+45.6[a]	-2.2	+9.1[a]
Byrd and Hickman (1992), *US*	1980-87	MM	(-1, 0)	128	TO		-1.23	
Smith and Kim (1994), *US*	1980-86	MM	(-5, +5) (-60, -6) (+6, +60)	177	TO	+30.19[b] +7.98[b] -2.95[b]	+0.50 +0.67 +2.76[b]	+8.88[b] +3.26[b] +1.90[c]
Schwert (1996), *US*	1975-91	MM	(-42, -1) (-42, -1) (0, close) (0, close)	959 564 959 564	M TO M TO	+11.90[b] +15.60[b] +4.90[b] +20.10[b]	+1.4[*] +1.70[*] -3.4[*] +2.5[*]	
Maquieira, Megginson and Nail (1998), *US*	1977-96	VPE	(-40, +40)	47 55	UM-Stock RM-Stock	+41.65[a] +38.08[a]	-4.79[c] +6.14[b]	+3.28 +8.58[a]
Chang (1998), *US*	1981-92	MM	(-1, 0)	101 154 131 150	Pub-Cash Pub-Stock Priv-Cash Priv-Stock		-0.02 -2.46[a] +0.09 +2.64[a]	
Walker (2000), *US*	1980-96	MAM	(-2, +2)	230 48	M TO		-1.3[b] +0.51	
Graham, Lemmon and Wolf (2002), *US*	1980-95	MM	(-1, +1)	356	All MA	+22.51[a]	-0.78[a]	+3.4[a]
Franks and Mayer (1996), *UK*	1985-86	MAM	(0, +20)	34 32	FA HA	+18.44[a] +29.76[a]		
Higson and Elliott (1998), *UK*	1975-90	Size decile benchmark	(0, close) (0, +20)	830	All deals	+37.5[a] +31.5[a]	+0.43 +0.20	
Danbolt (2004), *UK*	1986-91	Size-decile, MAM, MM, CAPM	(0, +20) (-2, +1) (+1, +5)	514	Domestic deals	+18.76[a] +20.64[a] -1.85[a]		

Study, *sample country*	Sample period	Benchmark return model	Event window (days)	Sample size: T/B/C	Type of M&A	CAARs Target, %	CAARs Bidder, %	CAARs Combined, %
Doukas, Holmen and Travlos (2002), *Sweden*	1980-95	MM	(-5, +5)	46 46	RMA UMA		+2.74[a] -2.37[c]	
Kang, Shivdasani and Yamada (2000), *Japan*	1977-93	MM	(-5, +5) (-1, 0) (-1, 0) (-1, 0) (-1, 0)	154 104 50 95 59	All MA RMA UMA Stock Mixed		+2.22[a] +1.4[b] +0.8 +1.0[b] +1.4[c]	
Study, *sample country*	Period	Benchmark model	Window (days)	Sample size: T/B/C	Type of M&A	CAARs Target %	CAARs Bidder %	CAARs Combined %

Panel C: Fifth Takeover Wave, 1993-2001

Study, *sample country*	Sample period	Benchmark model	Window (days)	Sample size: T/B/C	Type of M&A	CAARs Target %	CAARs Bidder %	CAARs Combined %
Kohers and Kohers (2000), *US: HT companies*	1987-96	MM	(0, +1)	961 673	Cash Stock		+1.37[a] +1.09[a]	
Mulherin and Boone (2000), *US*	1990-99	MAM	(-1, +1)	376/281/281	MA-Public	+21.2[a]	-0.37	+3.56[a]
Datta, Iskandar-Datta and Raman (2001), *US*	1993-98	MM	(-1, 0)	1577 142 337 1382	M TO Cash No Cash		+0.003 +0.23 +0.52[a] -0.10	
Moeller, Schlingemann and Stulz (2004), *US*	1980-01	MM	(-1, +1)	4862 2958 4203 2642 5583	Cash Stock Mixed Public Private		+1.38[a] +0.15[a] +1.45[a] -1.02[a] +1.49[a]	
Fuller, Netter and Stegemoller (2002), *US*	1990-00	MAM	(-2, +2)	456 2060	Public Private		-1.00[b] +2.08[a]	
Zhao and Lehn (2003), *US*	1990-98	MM	(-5, +40)	61 98	CEO turn CEO stay		-7.03[a] +0.28	
Bouwman, Fuller and Nain (2003), *US*	1979-98	MAM	(-1, +1)	222 6 40 930 510 265	TO-Cash TO-Stock TO-Mixed M-Cash M-Stock M-Mixed		+0.36 -0.62 -1.23[a] +0.88[a] -0.79[a] +2.33[a]	
Ang and Cheng (2003), *US*	1984-01	SBM	(-1, close)	848	All deals	+26.11[a]	-0.48[c]	
Bradley and Sundaram (2004), *US*	1990-00	MAM	(-2, +2)	493 1149 4583 1854 12476	Pub-Cash Pub-Stock Priv-Cash Priv-Stock All deals		+0.83[a] -1.29[a] +0.71[a] +1.39[a] +1.45[a]	
Raj and Forsyth (2003), *UK*	1990-98	MAM	(-20, +5)	22 90	Hubris Other	+29.22[b] +27.82[b]	-4.13[b] +0.27	
Sudarsanam and Mahate (2003), *UK*	1983-95	4 methods, Results are for MAM	(-1, +1) (+2, +40)	519	All deals		-1.39[a] +0.14	
Faccio and Stolin (2003) and Faccio, McConnell and Stolin (2004), *Europe*	1996-01	MAM	(-2, +2)	735 436 189 110 3694 2876 201 617	Public-All Pub-Cash Pub-Stock Pub-Mix Private-All Priv-Cash Priv-Stock Priv-Mixed		-0.38 +0.30 -1.81[b] -0.66 +1.48[a] +1.17[a] +3.90[a] +2.14[a]	
Goergen and Renneboog (2004), *Europe*	1993-01	6 methods, Results are for MM (TTA)	(-2, +2)	40/41 53/55 28/32 88/86 30/33 18/23	M FA HA Cash Stock Mixed	+12.62[a] +11.33[a] +17.95[a] +13.56[a] +11.38[a] +13.24[a]	+4.35[a] +1.94[a] -3.43[a] +0.90[c] +2.57[a] +0.22	

Study, *sample country*	Sample period	Benchmark return model	Event window (days)	Sample size: T/B/C	Type of M&A	CAARs Target, %	CAARs Bidder, %	CAARs Combined, %
Campa and Hernando (2004), *EU*	1998-00	CAPM	(-1, +1)	182	Domestic deals	+3.86[b]	+0.61	+1.33[b]
Martynova and Renneboog (2006), *Europe*	1993-01	6 methods, Results are for MM (TTA)	(-5, +5)	259/1659 380/329 123/120 405/754 185/285 92/412 525/1334 234/774	M FA HA Cash Stock Mixed RMA UMA	+6.25[a] +20.19[a] +22.36[a] +20.17[a] +11.10[a] +17.48[a] +15.16[a] +17.36[a]	+1.07[a] -0.29 -0.18 +1.03[a] +0.66 +1.03[c] +0.98[a] +0.45	
Holmen and Knopf (2004), *Sweden*	1985-95	MM	(-5, +5)	121	TO	+16.99[a]	+0.32	+4.12[a]
Schaik and Steenbeek (2004), *Japan*	1993-03	MM	(-1, +1)	136	All deals		+0.57	
Bae, Kang and Kim (2002), *Korea*	1981-97	MM	(-5, +5)	107 66 41	M all RM UM		+2.666[b] +3.904[a] +0.672	

Panel D: Takeover Waves Comparison

Study, *sample country*	Sample period	Benchmark return model	Event window (days)	Sample size: T/B/C	Type of M&A	CAARs Target, %	CAARs Bidder, %	CAARs Combined, %
Bradley, Desai and Kim (1988), *US*	1963-68 1968-80 1981-84 1963-84	MM	(-5, +5)	51 133 52 236	TO	+18.92[a] +35.29[a] +35.34[a] +31.77[a]	+4.09[a] +1.30 -2.93[a] +0.97[b]	+7.78[a] +7.08[a] +8.00[a] +7.43[a]
Jarrell and Poulsen (1989), *US*	1963-69 1970-79 1980-86 1963-86	MAM	(-10, +20) (-10, +20) (-10, +20) (-20, +10)	74 127 203 526/461	TO	+28.99[a]	+4.95[a] +2.21[a] -0.04 +1.29[b]	
Loderer and Martin (1990), *US*	1966-68 1968-80 1981-84 1966-84 1966-84	MM	(-5, 0)	970 3401 801 1135 274	All deals All deals All deals M TO		+1.72[b] +0.57[b] -0.07 +0.99[b] +0.52[b]	
Andrade, Mitchell and Stafford (2001), *US*	1973-79 1980-89 1990-98 1973-98 1973-98 1973-98	MM	(-1, +1)	598 1226 1864 3688 2194 1494	All deals All deals All deals All deals Stock No Stock	+16.0[b] +16.0[b] +15.9[b] +16.0[b] +13.0[b] +20.1[a]	-0.3 -0.4 -1.0 -0.7 -1.5[a] +0.4	+1.5 +2.6[b] +1.4[b] +1.8[b] +0.6 +3.6[b]
Fan and Goyal (2002), *US*	1962-70 1971-80 1981-90 1991-96	MM	(-10, +10)	377 569 702 514	VMA			+2.8[a] +2.2[b] +4.5[a] +3.8[a]
Akbulut and Matsusaka (2003), *US*	1950-62 1963-68 1969-73 1974-79 1980-83 1984-89 1990-93 1994-99 2000-02	MAM	(-2, +1)	23 164 57 167 69 114 71 325 103	UMA		-0.46 +0.95[b] +0.07 -0.97[a] -1.79[b] -0.54 -2.74[c] -0.48 -0.18	+0.52 +1.65[a] +0.23 +2.33[a] +0.30 +1.67[a] +0.44 +0.77[b] +0.07
Moeller and Schlingemann and Stulz (2005), *US*	1980-90 1991-01 1998-01	MM	(-1, +1)	448 1519 729	All deals		+0.64[*] +1.20[*] +0.69[*]	
Moeller and Schlingemann (2005), *US*	1985-90 1990-95	MAM	(-1, +1)	1214 2832	Domestic deals		+0.44[a] +1.49[c]	

Study, *sample country*	Sample period	Benchmark return model	Event window (days)	Sample size: T/B/C	Type of M&A	CAARs Target, %	CAARs Bidder, %	CAARs Combined, %
Bhagat et al. (2004), *US*	1962-68	MM The results differ when new PSM is applied	(-5, +5)	71	TO	+17.96[a]	+3.29[a]	+7.45[a]
	1968-80			176		+27.97[a]	+0.05	+6.40[a]
	1981-84			45		+31.90[a]	-1.42[c]	+8.12[a]
	1985-88			214		+25.61[a]	-0.49	+5.19[a]
	1989-92			84		+29.08[a]	-1.78[a]	+3.59[a]
	1993-96			139		+31.92[a]	+0.98	+5.05[a]
	1997-00			210		+33.18[a]	+0.97[c]	+4.61[a]
	2000-01			79		+44.78[a]	-0.81	+3.57[a]

Table A-1 also reports that abnormal returns of target firms measured over a holding period of two weeks surrounding the announcement date range from 14 to 44%. The two-week abnormal returns are significantly different across the decades. Bradley, Desai and Kim (1988) and Bhagat et al. (2004) show that these returns amount to 18-19% over the 1960s, 32-35% over the 1980s, and 32-45% over the period 1990-2001. Changes in insider trading and takeover regulation introduced in the US in the late 1960s and 1980s may account for this difference.

Thirteen studies included in Table A-1 analyse the abnormal returns from the first public announcement through the subsequent month or until the day on which the takeover is completed (all the shares are acquired), whichever is the latest. Table A-1 indicates that the magnitude of the post-announcement abnormal gains is similar across all takeover waves. US target firms realize statistically significant abnormal gains of 16 to 22% in friendly M&As over the first month subsequent to the first public announcement. On average, UK target firms outperform their US counterparts over the same period, as they realize post-announcement returns of 18 to 32%. Expectedly, target shareholders in successful but initially hostile M&As were offered higher premiums. When a hostile bid is made, the target share price immediately incorporates the expectation that opposition to the bid will lead to upward revisions of the offer price. Servaes (1991) demonstrates for the US that hostile bids trigger a CAAR of almost 32%, whereas the wealth effects amount to only 22% for friendly bids. Likewise, Franks and Mayer (1996) find post-announcement CAARs of almost 30% for hostile UK bids versus 18% for friendly ones.

When Schwert (1996), Franks and Harris (1989), partition the sample of takeovers into tender offers and mergers, they find that target shareholders earn substantially higher premiums in tender offers. Accordingly, since the means of payment in mergers is usually equity while cash bids prevail in tender offers, they also find that all-cash bids are more profitable for target shareholders than are all-equity ones. However, even within each takeover subsample (mergers, friendly acquisitions, tender offers), Franks, Harris and Titman (1991), Andrade, Mitchell and Stafford (2001), and Goergen and Renneboog (2004) show evidence that all-equity bids trigger lower target returns than all-cash bids.

Rossi and Volpin (2004) show that legal environment and takeover regulation are important determinants of the takeover gains (measured as a bid price over target market value 4 weeks before

the announcement). They report that takeover premiums are higher in countries with higher shareholder protection and in countries where the mandatory bid requirement is enforced by law.

Finally, the empirical literature offers no conclusive evidence on whether or not abnormal returns to target shareholders differ between takeovers of related firms and those of unrelated, diversifying firms (Maquieira, Megginson and Nail, 1998). In contrast, Martynova and Renneboog (2006) document that the shareholders of target firms yield substantially higher abnormal returns in conglomerate mergers than in industry-related mergers (32% versus 24% over six-month window centred on the bid announcement day).

Bidding-firm stockholder returns

There is a considerable contrast between the large share price returns of target firms and the frequently negligible returns of bidding firms. Indeed, immediately around the announcement bidder shareholders realize abnormal returns insignificantly different from zero. For takeovers during the 1960s and 1970s, Asquith (1983) and Eckbö (1983) report positive abnormal returns of 0.2% and 0.1%, respectively (Panel A of Table A-1); for the late 1970s and the 1980s, Morck, Shleifer and Vishny (1990), Byrd and Hickman (1992), and Chang (1998) report negative abnormal returns ranging from –1.2% to –0.7% (Panel B); and for takeovers occurring in the 1990s wave (panel C), 17 studies are split almost evenly between positive and negative returns. The fact that all these gains and losses are statistically insignificant and do not differ across takeover waves is confirmed by the comparative study of Andrade, Mitchell and Stafford (2001).

The share price run-up prior to a takeover announcement over a one-month period is positive, but mostly insignificant for bidder shareholders. For the third wave, Dodd (1980) and Dennis and McConnell (1986) report that the abnormal bidder gains are close to zero (Panel A of Table A-1). Smith and Kim (1994) and Schwert (1996) arrive at analogous (insignificant) results (0.7% and 1.7%, respectively) for tender offers during the fourth takeover wave (Panel B).

When one considers the wealth effects over somewhat longer time windows of one or two months surrounding the announcement effect, the bidders' CAARs are significantly positive (3.2 to 5.0%) for the third M&A wave, significantly negative (-1.0% to -1.4%) for the fourth takeover wave, and indistinguishable from zero for the fifth wave (panels A-C). The studies comparing the bidders' wealth effects across the various waves (Panel D) confirm the above patterns.

Table A-1 also reveals that the bidders' CAARs measured over a wide time window surrounding the takeover announcements largely depend on the type of acquisition, the means of payment, and the acquisition strategy. The CAARs of friendly takeovers are generally significantly higher than those of mergers, which are in turn significantly larger than those of hostile bids. Franks, Harris and Titman (1991), Servaes (1991) and Goergen and Renneboog (2004) show that hostile bids decrease the value of the bidding firm by 3 to 5%. A growing number of studies report that

gains to the bidders depend on the status (private or publicly listed) of the target firm, with a bid on a private target resulting in substantially higher CAARs to the bidders.

The means of payment also determines the bidders' CAARs. US studies unanimously agree that the announcements of all equity-financed acquisitions are associated with significantly negative abnormal returns on the bidder stocks, and that these takeovers substantially underperform the all-cash bids.

As is the case for target CAARs, there is inconclusive evidence on the impact of the acquisition strategy on bidder CAARs.[25] Several studies, mostly covering the fourth takeover wave, show that bidders acquiring firms within the same industry experience significantly higher CAARs than the bidders diversifying into unrelated industries. For the European M&A wave of the 1990s, Martynova and Renneboog (2006) report significantly positive CAARs of 0.98% for the bidders that announce industry-related acquisitions and insignificant CAARs of 0.45% for the bidders that announce diversifying acquisition; the difference is statistically significant.

Total gains from takeovers

As the targets' shareholders earn large positive abnormal returns and the bidders' shareholders do not lose on average (Table A-1), takeovers are expected to increase the combined market value of the merging firms' assets. Bradley, Desai and Kim (1988) report that investors who owned an equal share in both the bidder and the target one week prior to the event date and sold their entire holdings one week after the event day would have earned an abnormal return of 7-8% over the period 1963-84. Bhagat et al. (2004) cover the subsequent period (1985-00) and find that the total takeover gains over this period decreased compared to the previous decades. Furthermore, Bhagat et al. (2004) and Harford (2003) also demonstrate that the total announcement wealth effects of M&As occurring in periods outside the takeover waves are always significantly lower than the gains earned during takeover waves. Both studies also reveal that the highest combined M&A gains are realized at the beginning of takeover waves. This is confirmed by Moeller et al. (2005) for the fifth takeover wave: the takeovers with the largest losses occurred during the second half of the wave (namely, from 1998 to 2001).[26]

4.1.3 Long-term wealth effects

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[25] An extensive study of diversifying acquisitions by Akbulut and Matsusaka (2003) shows that unrelated acquisitions in the 1960s generated significantly positive abnormal returns to bidder shareholders, but were found to be value-destroying in later decades.

[26] However, the profitability of unrelated acquisitions reflects a different picture. Akbulut and Matsusaka (2003) present evidence that the waves of unrelated diversifying takeovers are associated with insignificant abnormal returns for combined firms in the first half of takeover waves and with significant abnormal gains in the second half.

When the event window is extended over several years after the announcement of an acquisition, the magnitude of the estimated M&A effect on the share prices depends on the estimation method. Table A-2 shows that the studies employing the market model (MM) tend to show systematically lower stock prices over the three years following the M&A announcement (Panels A-C of Table A-2). The studies applying other estimation techniques, such as the capital asset pricing model (CAPM), the market-adjusted model (MAM), or a beta-decile matching portfolio yield inconsistent results about the post-merger stock price returns. Barber and Lyon (1997) demonstrate that a portfolio matched by size and by market-to-book ratio is a better benchmark portfolio. With this methodology, the more recent studies reveal insignificant long-term abnormal returns in tender offers and negative ones in mergers (panel D of Table A-2).

Table A-2. Long-term wealth effects subsequent to M&A announcements.

This table presents the share price performance of acquiring companies over the long run. The reported results are for successful domestic takeovers between non-financial firms. The following notation is used.

Types of mergers and acquisitions: T - tender offer, M - merger, MA - M&As, HMA - horizontal M&A, VMA - vertical M&A, RMA - related M&A (non-conglomerate), UMA - unrelated M&A (conglomerate or diversification), A - acquisition, FA - friendly acquisition, HA - hostile acquisition, Stock - all-stock offer, Cash - all-cash offer, Mixed - combination of stock and cash offer, Public (Pub) - Target company is public, Private (Priv) - Target company is private. High, Medium and Low refer to subsamples of companies with corresponding high, medium and low Price to Earnings ratio.

Benchmark Return Models: MM - Market model; MAM - Market-adjusted model; CAPM - Capital Asset Pricing model; FFM - Fama-French Model; TTA - Thin-trade adjusted; RATS – Returns Across Time and Securities (Ibbotson (1975)).

Returns Measures: CAARs – Cumulative Average Abnormal returns; BHARs – Buy-and-Hold Abnormal Returns; CTARs - Calendar Time Abnormal Returns.

Significance level: * - significance is not reported; a/b/c - statistical significance at 1%/5%/10%, respectively.

Study	Sample period	Benchmark	Event window (month)	Sample size	Type of M&A	CAARs, ARs or BHARs, %
Panel A: Second and Third Takeover Waves, 1920s-1973						
Haugen and Udell (1972), *US*	1961-67	Return to financial instrument with similar claims on corporate profit	CAARs (0, +48)	21 27 16	RMA UMA Stock	+3.0 +6.6[b] +6.6[c]
Halpern (1973), *US*	1950-65	2-factor model: market and industry, moving average, MM	CAARs (0, +7)	149	Public	+12.76a
Mandelker (1974), *US*	1941-62	MAM	CAARs (+1, +12)	241	M	+0.6[a]
Ellert (1976), *US*	1950-72	MM	CAARs (+1, +48)	135	All deals considered for anti-trust violation	-1.6
Dodd and Ruback (1977), *US*	1958-76	MM	CAARs (0, +60)	124	TO	-5.9
Langetieg (1978), *US*	1929-69	4 methods	CAARs (+1, +12) (+1, +24)	149	M	-6.59 -12.86
Asquith (1983), *US*	1962-76	Beta-decile portfolio	CAARs (0, +12)	196	M	-7.2[a]
Malatesta (1983), *US*	1969-74	MM	CAARs (0, +36)	256	M	-7.6[a]

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Study	Sample period	Benchmark	Event window (month)	Sample size	Type of M&A	CAARs, ARs or BHARs, %
Bradley and Jarrell (1988), *US*	1976-81	Beta-decile portfolio	CAARs (0, +36)	78	M&TO	-16.0
Magenheim and Mueller (1988), *US*	1976-81	MM	CAARs (0, +36)	26 51	TO M	+6.32[*] -24.37[*]
Franks, Harris and Mayer (1988), *US&UK*	1955-84	MM, MAM, CAPM	CAARs (0, +24)	127 392 221 207	US-Cash US-Stock UK-Cash UK-Stock	-3.6 -1.8[b] +1.75[b] -9.4
Franks, Broyles and Hecht (1977), *UK*	1955-72	MM (TTA)	CAARs (-40, +40)	94	M	-0.04
Firth (1980), *UK*	1969-75	MM	CAARs (+1, +12) (+13, +36)	434	TO	+0.5 -0.4
Franks and Harris (1989), *UK*	1960-85	MM MAM CAPM	CAARs (0, +24)	1048	M&TO	-12.6[a] +4.8[b] +4.5[b]
Kumps and Wtterwulghe (1980), *Belgium*	1962-74	Industry matched	ARs (0, +12) (0, +24)	25	M	+0.068 +0.117
Eckbö (1986), *Canada*	1964-83	MM with lead and lag terms (TTA)	CAARs (+1, +12)	1138 215 552	All M RM UM	+1.00[b] +0.60 +0.74[b]
Bühner 1991, *Germany*	1973-85	MM	CAARs (+1, +12) (+1, +24)	110	All deals	-6.93 -5.98
Peer (1980), *The Netherlands*	1962-73	Industry, Sharp measure, and Treynor measure	ARs (0, +12) (0, +36) (0, +12) (0, +36)	20 20 9 9	HM HM UM UM	+0.75 +2.26 -0.61 -1.84

Panel B: Fourth Takeover Wave, 1981-1989

Study	Sample period	Benchmark	Event window (month)	Sample size	Type of M&A	CAARs, ARs or BHARs, %
Franks, Harris and Titman (1991), *US*	1975-84	5 models, results for 8-factor model	Average monthly AR during (0, +36)	399 156 128 114 93 306	All deals Cash Stock Mixed HA FA	+0.05 +0.26 -0.17 +0.44 +1.24[a] +0.78[c]
Agrawal, Jaffe and Mandelker (1992), *US*	1955-87	Size and beta-adjusted	CAARs (0, +60)	227 937	TO M	+2.2 -10.26[a]
Loderer and Martin (1992), *US*	1965-86	*Size and beta-adjusted*	CAARs (+1, +60)	155 304	TO M	+1.0 -0.75
Anderson and Mandelker (1993), *US*	1966-87	Size and B/M Size	CAARs (+1, +60)	670	M	-9.31[a] -9.56[a]
Loughran and Vijh (1997), *US*	1970-89	Size and B/M	BHARs (0, +60)	8 92 100 292 142 434	TO-Stock TO-Cash TO-all M- Stock M-Cash M-all	-61.2 +66.4[b] +56.2[b] -5.9 +33.9[b] +7.1
Rau and Vermaelen (1998), *US*	1980-91	Size and B/M adjusted	CAARs (0, +36)	255 316 643 2823	TO-Public TO-all M-Public M-all	+8.56 +8.85 -2.58[a] -4.04[a]

Study	Sample period	Benchmark	Event window (month)	Sample size	Type of M&A	CAARs, ARs or BHARs, %
Bouwman, Fuller and Nain (2003), *US*	1979-98	Size and B/M	BHARs (0, +24)	222 6 40 930 510 265	TO-Cash TO-Stock TO-Mixed M-Cash M-Stock M-Mixed	+6.38[c] -26.17 +12.27 -1.76 -7.03[c] -1.87
Limmack (1991), *UK*	1977-86	MM, 3 methods	CAARs (0, +24)	448	M&TO	-4.67[b]
Limmack (1993), *UK*	1977-86	MM	CAARs (0, +24)	203 224 98	HA FA CB	-19.86[a] -8.94b -8.06
Kennedy and Limmack (1996), *UK*	1980-89	Size	CAARs (0, +23)	247	M&TO	-5.08[*]
Gregory (1997), *UK*	1984-92	MM, Size, CAPM, FFM	CAARs (+1, +24)	452	M&TO	-11.82[a]
Chatterjee (2000), *UK*	1977-90	MAM	CAARs (0, +24)	25 153	TO-Large TO-All	-0.4 -4.1
Cosh and Guest 2001, *UK*	1985-96	Size and B/M	BHARs (+1, +48)	58 123	HA FA	-4.0 -22.1[a]

Panel C: Fifth Takeover Wave, 1993-2001

Study	Sample period	Benchmark	Event window (month)	Sample size	Type of M&A	CAARs, ARs or BHARs, %
Datta, Iskandar-Datta and Raman (2001), *US*	1993-98	MM	BHARs (0, +36)	437 48 125 360	M TO Cash No Cash	-10.67[a] +6.20 -18.82[c] -6.0[c]
Kohers and Kohers (2001), *US: HT companies*	1984-95	Size and B/M RATS	BHARs CAARs (0, +36)	304	M	+32.09[a] -18.68[a]
Moeller, Schlingemann and Stulz (2004), *US*	1980-01	4-factors based on FFM and Carhart (1997)	Average monthly AR during (0, +36)	12023 1199 396 1047 1553 2060 1970	All deals Pub-Stock Pub-Cash Pub-Mix Priv-Stock Priv-Cash Priv-Mix	+0.018 +0.189 +0.396[b] -0.092 +0.287 +0.206 -0.065
Ang and Cheng (2003), *US*	1984-01	Size, B/M and pre-merger momentum	BHARs (0, +36)	241 350	Pub-Cash Pub-Stock	-2.06 -12.45[a]
Bradley and Sundaram (2004), *US*	1990-00	MAM	CAARs (+1, +24)	12476 1149 493 1854 4583	All deals Pub-Stock Pub-Cash Priv-Stock Priv-Cash	-10.09[a] -6.35[a] -0.00 -14.00[a] -6.76[a]
Conn et al. (2004), *UK*	1984-00	Size and B/M	BHARs (+1, +36) CTARs (+1, +36)	576 2628 576 2628 75 501 1400 1172	Pub-All Priv-All Pub-All Priv-All Pub-Cash Pub-Ncash Priv-Cash Priv-Ncash	-19.78[a] -4.78 -0.40[b] -0.08 +0.06 -0.47[b] -0.14 -0.07
Gao and Sudarsanam (2003), *UK: HT companies*	1990-99	Industry Size and B/M Industry, Size and B/M	CAARs (0, +12)	173	All deals	-34.36[a] +7.09 +1.84[c]

Study	Sample period	Benchmark	Event window (month)	Sample size	Type of M&A	CAARs, ARs or BHARs, %
Sudarsanam and Mahate (2003),[x] UK	1983-95	Size, MAM, B/M, Mean-adjusted	BHARs (+2, +36)	17 30 50 36 32 35 519	Cash-High Cash-Med Cash-Low Stock-High Stock-Med Stock-Low All deals	+10.19 +4.15 +4.47 -30.80[a] -18.40[a] -17.85[a] -14.76[a]
Croci (2004), *France, Germany, Italy, Switzerland, UK*	1990-01	Size and M/B	BHARs, (0, +12) (0, +24) (0, +36)	83 50 23	MAs by corporate raiders	-9.47 -24.36[b] -6.94

Panel D: Takeover Waves Comparison

Study	Sample period	Benchmark	Event window (month)	Sample size	Type of M&A	CAARs, ARs or BHARs, %
Mitchell and Stafford (2000), *US*	1961-93	Size and M/B and other benchmarks	BHARs (0, +36)	2068 1029 1039	All deals Stock No Stock	-0.01 -0.084[a] +0.064[b]
Agrawal and Jaffe (2001), *US*	1965-96 1926-96 1926-96 1926-96	Size and M/B	CAARs (-24, -3)	1319 2010 1526 432	All deals All deals M TO	+0.99 +1.52[a] +2.16[a] -0.82
Higson and Elliot (1998), *UK*	1975-80 1981-84 1985-90 1975-90	Size-decile benchmark	BHARs (+1, +24)	305 156 315 776	All deals	-9.95[b] +26.6[a] -6.18 -1.14

The insignificance of the long-term abnormal returns disappears when all M&A transactions are partitioned into subsamples by means of payment, bid status (hostile versus friendly), and type of target firm. Thus, M&As fully financed with equity yield significantly negative long-term returns, whereas all-cash bids are followed by positive returns (Mitchell and Stafford, 2000; Sudarsanam and Mahate, 2003; Loughran and Vijh, 1997). Franks, Harris and Titman (1991) show that hostile bids in the UK significantly outperform friendly ones over a three-year window after the bid announcement, while both types typically yield significantly positive returns. In contrast, over a period of four years after the event, Cosh and Guest (2001) find long-term abnormal returns to be negative, but these returns are only significant for hostile acquisitions.

There is some (albeit weak) evidence that the long-term stock price performance is higher when the target is listed on a stock exchange than when the target is private. Bradley and Sundaram (2004) show that the two-year post-announcement returns in takeovers of a public target are insignificant from zero, whereas these returns are significantly negative when the target is private. While all previously discussed studies examine takeover bids made by public companies, Croci (2004) focuses on acquisitions made by corporate raiders. These acquisitions experience systematic losses in the three years after the bid.

Two studies examine the long-term gains of related and unrelated acquisitions. According to Haugen and Udell (1972), both types of takeovers lead to significantly positive abnormal returns over the four-year period subsequent to the bid, but the acquisition of a related business eventuates

in higher returns. Conversely, Eckbö (1986) finds that one-year CAARs triggered by diversifying takeovers outperform the ones triggered by industry-related bids. The difference between findings of Haugen and Udell (1972) and Eckbö (1986) suggests that acquisitions between companies operating in the same or related industries pay off over the long run (for example, as a result of a successful R&D program), whereas most of the gains from diversifying takeovers only occur shortly after a bid's completion.

The evidence of this subsection on long-term abnormal returns demonstrates that takeovers lead to a decline in share prices several years following the transaction, whereas Sections 4.1.2 and 4.1.3 have given evidence of significantly positive total gains around the announcement of M&As. The literature suggests two reasons for this. First, the difference between short-term and long-term returns results from the fact that long-term performance studies may be subject to methodological problems (Jensen and Ruback, 1983). The problems arise from the impossibility to isolate the pure takeover effect from the effect of other events occurring in the years subsequent to the acquisition. If the negative trend results from research design problems, then the conclusion about value destruction in M&As may be misleading. A second explanation is that the studies of both long-term and short-term effects assume capital market efficiency. Consequently, financial markets frictions may account for the difference in results. Market participants may tend to overestimate the potential merger gains when the bid is announced, and revise their expectations downwards when more information about the takeover process is released over time. This second explanation leads to the conclusion that takeover activity destroys value on average, or can at least not fulfil the expectations.

4.1.4 Operating performance

Accounting studies examine the combined gains of takeovers (Table A-3). Fourteen out of 25 studies report a post-merger decline in the profitability of merging firms (e.g. Ravenscraft and Scherer, 1987), 6 papers show insignificant changes in firm profitability (e.g. Linn and Switzer, 2001), and 5 papers provide evidence of a significantly positive increase in operating returns (e.g. Carline, Linn and Yadav, 2002).

Table A-3. Post-Merger Operating Performance

This table presents the post-merger operating performance of acquiring (or the combined) companies. The reported results are for successful domestic takeovers between non-financial firms.

Types of mergers and acquisitions: T - tender offer; M – merger; MA - M&As; HM - horizontal merger; VM - vertical merger; CM – conglomerate merger; RMA (RTO) - related M&A (Tender Offer); UMA (UTO) - unrelated M&A (Tender Offer); 2- and 3- digit – degree of relatedness is based on 2- or 3- digit SIC codes; A – acquisition; FA - friendly acquisition; HA - hostile acquisition; Stock - all-stock offer; Cash - all-cash offer; PE – acquisition related to product expansion; NPE – acquisition for reasons other than product expansion.

Results: "↑" - performance measure increases compared to its benchmark; "=" - performance measure is not significantly different from its benchmark; "↓" - performance measure declines compared to its benchmark.

*Event Window*s: 0 – the year or day of announcement; (0, +nY) – the period of n years from the announcement; Close – the day of acquisition completion; (Close, +nD) – the period of n days from the completion; (1950, 1972) – the time period from 1950 to 1972. *Significance level*: * - significance is not reported; a/b/c - statistical significance at 1%/5%/10%, respectively

Study	Sample period	Sample size	Event window	Type of M&As	Operating Performance Measure	Performance measure adjusted for effect of	Results (↑, =, ↓)
Mueller (1980), *US*	1962-72	247 132 124 40 33	(0, +3Y) (0, +5Y) (0, +5Y) (0, +5Y) (0, +5Y)	All MA	ROE, ROA, ROS Sales Growth Rate Total assets Growth Rate Leverage Growth Rate Employment Growth Rate	Industry	↓[b], ↓, ↓ ↓[b] ↓[b] ↑ ↓
Mueller (1985), *US*	1950-72	123	Average annually (1950, 1972)	HM VM	Market share	Size and industry	↓[a] ↓[a]
Ravenscraft and Scherer (1987), *US*	1975-77	62	(0, +3Y)	TO	Operating Income/Assets Cash Flow/Assets	Industry	↓[c] ↓
Seth (1990), US	1962-79	102 52 50 102 52 50	(Close, 100D)	TO-all RTO UTO TO-all RTO UTO	Expected cash flow Expected cash flow Expected cash flow Required rate of return Required rate of return Required rate of return	Pre-merger performance	↑[a] ↑[a] ↑[a] ↓ ↓[b] ↓[b]
Healy, Palepu and Ruback (1992), *US*	1979-84	50	(0, +5Y)	Largest	Asset productivity Operating CF returns CF margin on sales Asset turnover R&D rate	Industry	↑[a] ↑[a] = ↑[a] =
Clark and Ofek (1994), *US*	1981-88	25 19	(0, +2Y) (0, +3Y)	MA in which Targets are Distressed	EBITD/Revenues	Industry	↓[a] ↓
Dickerson, Gibson and Tsakalotos (1997), *US*	1948-77	2914	(0, +5Y)	All MA	Rate of Returns on Assets (different measures)	Size, company and time-specific effects	↓[a]
Linn and Switzer (2001), *US*	1967-87	413 152 NA	(0, +5Y)	TO & M Stock RMA	Cash Flow/Market Value	Industry	↑ ↓
Ghosh (2001), *US*	1981-95	315	(0, +3Y)	All MA All MA All MA All MA Cash Stock RMA FA	Cash Flow Returns/Assets Sales Growth (SG) Cash Flow Margins (CFM) Employees to Sales (E/S) CFM, SG, E/S CFM, SG, E/S CFM, SG, E/S CFM, SG, E/S	Industry, Size and M/B	↑[a] = = ↓ ↑[c], ↑[b], ↑ ↓, ↓, ↓[a] ↓, ↓, ↑[b] ↑, =, ↑
Meeks (1977), *UK*	1964-72	161 73	(0, +3Y), (0, +5Y) (0, +3Y), (0, +5Y) (0, +3Y), (0, +5Y) (0, +3Y), (0, +5Y)	All deals RMA (3-digit) UMA (3-digit) UMA (2-digit)	EBIT/Net Assets	Industry and accounting bias	↓, ↓[b] ↓[a], ↓[b] ↓[a], ↓[a] ↑, ↓
Cosh, Hughes and Singh (1980), *UK*	1967-69	109 116 225 109, 116 109, 116	(0, +3Y), (0, +5Y)	HM UM All deals HM, UM HM, UM	Net Income/Net Assets Net Income/Net Assets Net Income/Net Assets Growth of Net Assets Leverage Ratio	Size and Industry	↓, ↓ ↑, ↑ ↑, ↓ ↑[b], ↑[b] ↑[b], ↑[b]
Powel and Stark (2001), *UK*	1985-93		(0, +3Y)	All MA	CF/TMV CF/BV CF/Sales	Industry, Size and M/B	↑[a] ↑ ↑[c]
Carline, Linn and Yadav (2002), *UK*	1985-94	81	(0, +5Y)	All MA Stock HA	Operating Performance (EBITDA/MV)	Industry	↑[a] ↓[b] ↑[a]

Study	Sample period	Sample size	Event window	Type of M&As	Operating Performance Measure	Performance measure adjusted for effect of	Results (↑, =, ↓)
Gugler, Mueller, Yurtoglu and Zulehner (2003), *Worldwide*	1981-98	1250 889 181 87 15	(0, +5Y)	All deals US UK Cont. Europe Japan All deals US UK Cont. Europe Japan	Profit/Assets Profit/Assets Profit/Assets Profit/Assets Profit/Assets Sales/Assets Sales/Assets Sales/Assets Sales/Assets Sales/Assets	Industry	↑[b] ↑[c] ↑ ↑ ↓ ↓[a] ↓[a] ↓[b] ↓ ↓
Kumps and Wtterwulghe (1980), *Belgium*	1962-74	21	(0, +5Y)	M	Net Income/Equity Net Income/Total Assets Total Assets Growth Rate Leverage Growth Rate	Size and industry	↑ ↑ ↑ ↓
Cable, Palfrey, and Runge (1980), *Germany (FRG)*	1964-74	134	(0, +5Y)	M	ROA, ROE, ROS Assets Growth Rate Sales Growth Rate	Size and industry	↑ = =
Buehner (1991), *Germany*	1973-85	31 43 19 17 31 43 19 17	(0, +3Y)	HM-PE HM-NPE VM CM HM-PE HM-NPE VM CM	ROA ROA ROA ROA ROE ROE ROE ROE	Pre-merger preformance	↑ ↓[b] ↓ ↓[c] ↓ ↓[c] ↑ ↓
Janny and Weber (1980), *France*	1962-72	40 40 40 27 43	(0, +4Y)	All MA	Profits/Equity Profits/Assets Profits/Sales Total assets Growth Rate Sales Growth Rate	Size and industry, Sales/assets ratio	↓ ↓ ↓ ↑ ↓
Peer (1980), *The Netherlands*	1962-73	35 31	NA	HM and CM	ROS ROE, ROC Total Assets Growth Rate Leverage Growth Rate	Size and industry	↓ ↓, ↓ ↓ ↓
Ryden and Edberg (1980), *Sweden*	1962-76	25 22 22 22 22	(0, +3Y)	All MA	ROE, ROA, ROS Sales Growth Rate Total Assets Growth Rate Leverage Growth Rate Employment Growth Rate	Size and industry	↓[b], ↓, ↓ ↑ ↑ ↑[c] ↑
Ikeda and Doi (1983), *Japan*	1964-75	44	(0, +3Y)	All MA	ROE ROA Expenses/Sales (ES) Sales/Total assets (SA) Sales/Employee (SE) Sales Growth (SG)	Performance of main rivals in the industry	↓[*] = = = = =
Odagiri and Hase (1989), *Japan*	1980-87	33	(0, +3Y)	All MA All MA HMA	Gross profit/Assets (GP/A) Sales growth GP/A, SG	Size and industry	↑ ↑ ↓[a], ↓

The picture is also less clear when post-merger corporate growth is investigated. Cosh, Hughes and Singh (1980) report a systematic improvement in the post-merger assets growth rate of UK companies that participated in M&As over the period 1967-69. For the period covering the third takeover wave, Mueller (1980) presents evidence of a significant decline in the growth rate of US companies. This conclusion is not upheld for the fourth takeover wave, as Ghosh (2001) finds no

statistically significant changes in the growth rate of US companies. Similar analyses of Japanese and European M&As reveal no significant changes in post-merger growth rates.

Generally, studies showing a decline in post-merger profitability employ earnings-based measures, while studies showing merger gains are based on cash flow performance measures. Ravenscraft and Scherer (1987, 1989) employ both measures and demonstrate that the difference in benchmarks is responsible for these conflicting conclusions.

Mueller (1985) and Gugler et al. (2003) examine whether takeovers are associated with an increase in the monopoly power of the acquiring firm. Mueller (1985) states that the market share of the combined firm substantially decreases after the merger compared to a non-merging control group. This decrease is substantial for both vertical and horizontal mergers. In contrast, Gugler et al. (2003) interpret their findings of increasing profits and decreasing sales as evidence of market power expansion subsequent to the takeover. They show that this result is primarily driven by related horizontal takeovers.

Nine studies presented in Table A-3 focus on the degree to which the relatedness of the merging firms' businesses is associated with higher post-merger profitability. There seems to be no significant difference in the post-merger profitability of related and unrelated acquisitions, of takeovers with a focus strategy and diversifying mergers, of horizontal and vertical takeovers, of takeovers that aim at product expansion and those that do not.

Most studies show that the operating performance of the all-equity acquisitions is significantly lower than of the bids made with cash (see e.g. Ghosh (2001) for the US and Carline, Linn and Yadav (2002) for the UK).

It is worth emphasizing that post-merger operating performance studies suffer from measurement errors and statistical problems similar to those encountered by studies of long-term wealth effects. This makes it difficult to compare the conclusions not only across countries but also across merger waves. Therefore, these results should be interpreted with caution. Moreover, in addition to the various statistical problems, operating performance studies suffer from accounting distortions such as changes in accounting standards over time and across countries, and from noise in the accounting data.

4.1.5 Summary of the evidence on takeover profitability

Although the empirical evidence on the profitability of takeovers is extensive, the conclusions do not entirely converge as to whether takeovers create or destroy company value. The analysis of shareholder gains at the announcement of M&As reveals that a positive effect is anticipated by the stock market. At their announcement, takeovers trigger substantial value increases, but most of these gains are captured by the targets' shareholders at the negotiating table. The magnitude of these gains and their distribution between target and bidder shareholders vary across the decades and depend on the characteristics of each deal. If the increases in the market

values of the combined firms result from anticipated synergistic gains, then the announcement effect should be reflected in a subsequent improvement in operating performance. However, the accounting studies presented in Table A-3 do not support this argument. Even more controversy is added by the analysis of the long-term share price performance. A substantial decline in the acquiring firms' share prices is observed over the first five years subsequent to the event. This implies that the anticipated gains from takeovers are on average non-existent or overstated.

4.2 Rational explanations: industry and technology shocks

As discussed in Section 3.1, M&A clustering may be driven by economic motives as a response to *shocks in the business environment*. Golbe and White (1993) show that a series of sine curves provide significant explanatory power for the time series of merger activity data. They show that the parameters characterizing the sine curves are statistically significant and reasonable in magnitude. Furthermore, the fitted sine curves predict the actual timing of peaks and troughs in merger activity well. Several studies relate the cyclical pattern of takeover activity to business cycles of macroeconomic factors. Nelson (1966), Gort (1969), Steiner (1975), and Golbe and White (1987) unanimously conclude that *changes in economic growth* and *capital market conditions* are positively related to the intensity of takeover activity. Still, Schary (1991) remarks that takeover activity is far more volatile than macroeconomic time series. Melicher, Ledolter and D'Antonio (1983) emphasize that changes in stock prices and bond yields predict future changes in merger activity best. Conflicting conclusions are drawn by Shugart and Tollison (1984) and Chowdhury (1993): they allege that takeover activity is a random phenomenon which is not explained by macroeconomic factors.

The studies examining takeover activity at the industry level have been most successful in explaining merger fluctuations. Nelson (1959), Gort (1969), and McGowan (1971) document that there is significant inter-industry variation in the rate of takeover activity during the 1950s and 1960s. Similarly, Mitchell and Mulherin (1996) and Andrade et al. (2001) report clustering of takeover activity by industry during the fourth and fifth takeover waves. Mitchell and Mulherin (1996) show that specific *shocks such as deregulation, oil price shocks, foreign competition, and financial innovations* explain a significant fraction of takeover activity in the 1980s. They interpret these results as evidence that the 1980s takeover wave is associated with 'an adaptation of the industry structure to a changing economy'. The 1980s therefore seem to be less about breaking up inefficient conglomerates than about restructuring certain industries. Furthermore, the authors note that if takeovers are driven by industry shocks, the post-merger performance should not necessarily be higher than the performance of a pre-shock benchmark or of an industry control group. That is consistent with the lack of empirical evidence of a post-merger increase in corporate profitability.

Andrade and Stafford (2004) complement Mitchell and Mulherin's (1996) findings with evidence of a strong positive relationship between industry shocks and within-industry takeovers in the 1990s. Whereas the merger wave of the 1990s occurred when industry capacity utilization was high, takeover activity in the 1970s and 1980s was a response to excess capacity brought about by a variety of economic shocks. Andrade and Stafford conclude that takeover activity is stimulated by both firm-specific and industry-wide causes. Industry-wide shocks were dominant drivers of M&As in the 1970s and 80s, as they produced excess capacity and thereby forced industries to reallocate assets by way of mergers. In contrast, M&A activity during the 1990s was driven by factors motivating firms to expand and grow. The authors also demonstrate that takeovers in the 1990s were less about industry restructuring than about industry expansion, as industries with strong growth prospects, high profitability and production near full capacity experienced the most intense takeover activity.

Maksimovic and Phillips (2001) employ plant-level data to investigate the intra-industry firm-level determinants of M&A. They find that less productive firms tend to sell their divisions at times of industry expansion, while efficient firms are more likely to be buyers. This redeployment of assets from less productive to more productive firms takes place in industries that experience an increase in demand. The authors show that the likelihood of an acquisition also depends on the company's access to external finance, as financially unconstrained companies are more likely to participate in M&As.

Harford (2004) estimates logit models to predict the start of an industry takeover wave. He shows that industry-specific economic shock measures predict waves – in line with the neo-classical explanation of takeover activity - but only when capital liquidity is high.

Technological change is often associated with takeovers. Jovanovic and Rousseau (2002a) show that the first two takeover waves, in the 1900s and 1920s, brought about an external reallocation of resources in response to the simultaneous arrival of two general-purpose technologies – electricity and internal combustion. Similarly, the waves of the 1980s and 1990s were a response to the arrival of the microcomputer and information technology. In a related paper, Jovanovic and Rousseau (2002b) find that technological shocks increase the dispersion in companies' growth prospects (as measured by Tobin's Q) and trigger the reallocation of assets from low-Q to high-Q firms.[27]

In contrast, Rhodes-Kropf and Robinson (2004) substantiate that high-Q acquirers typically do not purchase low-Q targets. Merging companies have similar growth opportunities. This result fits the theoretical literature which predicts that firms with complementary assets merge in order to reduce hold-up problems and under-investment resulting from incomplete contracting. Although

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[27] Still, while the Q-theory of takeovers can explain most waves, it cannot explain the 1960s conglomerate wave.

they do not test it, Rhodes-Kropf and Robinson (2004) suggest that external shocks affect the assets complementarities across firms and hence lead to an increase in takeover activity.

4.3 Non-rational explanations of takeover waves: hubris, herding and agency costs

While the market expects takeovers to be profitable on average, the evidence of value-destroying takeovers is persistent across takeover waves.

Several studies demonstrate that acquiring firms with *excess cash flow* tend to destroy value by overbidding. For instance, Harford (1999) shows that the abnormal share price reaction to takeover announcements by cash-rich bidders is negative and decreases with the amount of free cash flow held by the bidder. In addition, cash-rich firms pursuing value-decreasing acquisitions have a higher probability of being taken over themselves in subsequent years. Lang et al. (1991) also support this finding.

Another interesting question is whether *managerial personal objectives* drive value-destroying acquisitions. Lambert and Larcker (1987) find that the bidders' stock price response to acquisition announcements is significantly higher when a larger proportion of managerial income depends on the firms' share price performance rather than on accounting benchmarks. When the bidders' management owns a substantial share stake in the bidding firm, the market reacts more positively to a bid, as management is putting its own wealth at stake (Lewellen, Loderer and Rosenfeld, 1985). More recently, Datta et al. (2001) show that acquiring firms where the management holds equity-based compensation contracts experience significant positive stock price responses to acquisition announcements. These three studies conclude that when managers do not own equity, agency problems may be higher and acquisitions are more likely to destroy corporate value.[28]

The incidence of unprofitable acquisitions is also consistent with Roll's (1986) *managerial hubris* hypothesis. Rau and Vermaelen (1998) claim that an acquisition made by a firm with a low market-to-book ratio (a so-called 'glamour' firm) is affected by managerial hubris, as management is likely to overestimate their abilities to manage an acquisition. In particular, they observe that in the short-run, 'glamour' bidders experience higher abnormal returns than do bidders with high market-to-book ratios (the so-called 'value' bidders), while in the long-run this relation is reversed. Berkovitch and Narayanan (1993) design a formal test to distinguish between agency and hubris motives for takeovers. Analysing the correlations between target, bidder and total gains, they find strong evidence of hubris in US takeovers with positive abnormal returns, whereas there is evidence

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[28] Morck, Shleifer and Vishny (1990) believe that the management's utility function (rather than the shareholder objective) is responsible for unrelated diversifying acquisitions and the acquisition of growth firms. Consistent with this view, they find that stock market punishes acquirers that purchase a company operating in an unrelated industry or a company with high book-to-market ratio. Berger and Ofek (1995), Maquiera et al. (1998), Doukas et al. (2001) support these findings.

of the agency motive in the subsample with negative abnormal returns. Goergen and Renneboog (2004) also show that one third of the large European takeovers in the 1990s suffer from managerial hubris. Malmendier and Tate (2003) report yet another evidence of managerial hubris. They find that optimistic managers[29] participate more frequently in diversifying and less profitable takeovers.[30]

Harford (2003, 2004) reports that takeovers occurring at the later stage of the takeover wave trigger lower abnormal returns than those at the beginning of the wave. They interpret this finding as the result of *herding, accompanied with hubris or agency problems*. A similar decline in takeover profitability over the 1990s wave is documented in Moeller et al. (2005), but they do not support the hubris hypothesis. They claim that the evidence supports Jensen (2004): *high valuations* increase managerial discretion, making it possible for executives to make poor acquisitions when they have run out of good ones.

Further empirical evidence by Gugler et al. (2003) shows that neither industry shocks nor the Q-theory of takeovers can explain the cyclical pattern of takeovers. They show that the number of takeovers motivated by *hubris/agency problems* and by *overvaluation of shares* increases significantly during stock market booms.

4.4 Evidence of market-timing explanation for takeover waves

The market-timing motive received growing attention in the late 1990s, as the number of all-equity financed acquisitions increased dramatically in the US. Andrade et al. (2001) show that all-equity acquisitions represented 32.9% of all US M&As in the 1980s versus 57.8% in the 1990s. Similarly, Martynova and Renneboog (2006) document that equity became a popular source of financing in European M&As; the proportion of all-cash acquisitions fell by half in the 1990s compared to the 1980s. As equity payments (or combinations of equity and cash) dominate when stock market valuation peaked, it appears that companies use the temporal overvaluation of their shares to acquire firms (often with valuable fixed assets) and extract the mispricing premium.

The empirical literature considers a variety of measures to capture *overvaluation*. The book-to-market ratio is among the most frequently used, although some studies also use analysts' earnings forecasts and accounting measures to construct a proxy for mispricing. Martin (1996) shows that firms paying for acquisitions with equity have lower book-to-market ratios than those using cash. However, the book-to-market ratio is also considered as a proxy for the firm's growth prospects, where firms with good investment opportunities have lower ratios. Therefore, Martin's result is

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[29] According to Malmendier and Tate (2003, 2004) managers are classified optimistic if they voluntarily retain in-the-money stock options in their own firms.

[30] For further discussions on the role of hubris in corporate takeovers, see Hietala, Kaplan, and Robinson (2003) and Baker, Ruback and Wurgler (2004).

consistent not only with mispricing but also with the neoclassical interpretation that takeover activity prospers when growth opportunities are high or when firm-specific discount rates are low.

Faccio and Masulis (2005) use a bidder's buy-and-hold cumulative stock return over the year preceding the M&A announcement month (run-up premium) as a proxy for misvaluation. Similar to the Martin's findings, they show that this overvaluation measure is the highest for all-equity deals and lowest for all-cash deals. As is the case with the book-to-market value, the run-up premium is an imperfect measure of misevaluation because it also captures the firm's ability to generate high returns on its future investments. Therefore, Dong et al. (2003) use a more pure measure of mispricing: the 'residual income'-to-market ratio. This measure is free from the impact of a firm's growth opportunities because residual income includes future growth prospects of the firm (analysts' forecasts of future earnings) in addition to the firm's book value. The findings of Dong et al. (2003) support the hypothesis that the stock market drives acquisitions. In particular, bidders are on average more overvalued that their targets, the probability of an equity offer increases with the degree of the bidder's overvaluation, and the probability of a hostile bid decreases with overvaluation of the target firm.

Ang and Cheng (2003) complement the empirical evidence of the misvaluation motive for takeovers by pointing out that the above findings are robust when an industry-relative book-to-price ratio is used as a proxy for market misvaluation. Their findings are consistent with Shleifer and Vishny (2003): the management of the bidding firm takes the profitable opportunity to buy the real assets of a less overvalued target firm using their own overvalued equity, whereas the target managers accept the all-equity bid (unprofitable for long-term oriented target shareholders) because they maximize their own short-term benefits. They support this statement with evidence that all-stock acquisitions are associated with insignificant three-year post-bid abnormal returns to the incumbent shareholders of the bidding firm and with significant losses to the target shareholders who have retained the shares of the merged firm.

Rhodes-Kropf, Robinson, and Vishwanathan (2004) suggest yet another measure to capture misvaluation. They decompose the market-to-book ratio into three components: firm-specific error, time-series sector error, and long-run market value to book value. In their opinion, only the first component is expected to capture misvaluation. They interpret the observed positive relation between the firm-specific error and the likelihood that a firm will make an acquisition (especially an all-equity one), as evidence that deviations from the fundamental value drive takeovers. Also, the evidence indicates that industry-wide takeover activity increases with the time-series sector error, the second component in their market-to-book ratio decomposition. That is, more acquisitions occur when the industry is over-heated. Bidders with the highest firm-specific error are responsible for the bulk of these acquisitions. Finally, the authors show that acquirers are valued significantly higher than targets by the market, with cash acquirers being less overvalued than stock acquirers. This evidence supports the view that the mispricing premium is an important motive for choosing equity

as a means of payment. This chapter also demonstrates that overvaluation drives the decision of the target managers to accept all-cash offers. When examining the long-run market-to-book ratio, Rhodes-Kropf, Robinson and Vishwanathan find that low value-to-book bidders buy high value-to-book firms. While this evidence is consistent with the market mispricing explanations of takeover activity, the authors recognize that alternative explanations exist based on asymmetric information theories.

Harford (2004) designs a test to distinguish empirically between the neoclassical and market misvaluation explanations of M&As. He controls for a variety of factors associated specifically with misvaluation (industry shocks, financial liquidity) to predict the start of a takeover wave. While the industry and liquidity determinants appear to have significant predictive power, misvaluation variables only slightly improve the model. Harford argues that these results are consistent with neoclassical models explaining takeovers as a response to changes in economic environment, while sufficient capital liquidity is necessary to make takeovers feasible. He concludes that the capital liquidity effect, rather than misevaluation, drives M&As and makes them cluster in times of financial market booms.

4.5 Explaining diversifying takeovers

The academic literature presents ample evidence that diversification destroys corporate value.[31] The following evidence support this view. First, the market favours a business focus over diversification. There is consistent evidence (except for the M&As of the 1960s) that a takeover between companies operating in the same or related industry causes significantly larger announcement effects than a conglomerate takeover. Morck, Shleifer and Vishny (1990), Maquieira, Megginson and Nail (1998), Martynova and Renneboog (2006), among many others report that the acquisition of a related business triggers higher returns to the shareholders of the bidding firm. Second, diversified companies are often traded at a discount of up to 15% relative to stand-alone firms (Lang and Stulz, 1994; Berger and Ofek, 1995).[32] Third, a reversal of a diversification strategy pays off. Dittmar and Shivdasani (2003) observe that firms experience a reduction in the diversification discount after a divestiture. Veld and Veld-Merkoulova (2004) show that the announcement of a spin-off yields significant positive returns. John and Ofek (1995) documents that conglomerates selling divisions improve the operating performance during the three years subsequent to the event.[33] Fourth, there is also a systematic trend of firms undoing diversifications.

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[31] It is important to note here that a number of studies have recently questioned the evidence on value destruction in conglomerate mergers. These studies argue that poor performance is due to factors other than diversification. For the overview of these studies see Martin and Sayrak (2003).

[32] More recent evidence includes Servaes and Lins (1999), Denis and Thothadri (1999), Lamont and Polk (2002), Dittmar and Shivdasani (2003).

[33] For more evidence see Gertner, Powers, and Scharfstein (2002), Burch and Nanda (2002), Lamont and Polk (2002).

Kaplan and Weisbach (1992), Comment and Jarrell (1995), Scharfstein (1998) show that majority of firms that acquired unrelated businesses have been broken up either in bust-up takeovers or through reorganization.[34]

Standard explanations for forming a conglomerate include agency problems and financial synergies, e.g., internal capital markets. There is ample evidence showing that value-destruction associated with diversification is caused by agency problems or inefficient allocation of internally generated funds. For instance, Palia (1999) shows that diversified firms are traded at a significant discount if the managerial compensation package contains no or only a low proportion of stock and options and if the firm's board size is relatively small. In those cases, managers are more likely to be involved in inefficient diversification strategies. Similarly, Anderson et al. (1998) document that managerial compensation packages in diversified firms have lower pay-for-performance sensitivity than of those in non-diversified firms. Capital expenditures by a division of a diversified firm not largely depend on the division's cash flow but also on the cash flow of the firm's other segments (Shin and Stulz (1998)). This internal cross-subsidisation may lead to rent-seeking behaviour by divisional managers, coordination and bargaining problems within the firm and hence result in inefficient investments. These findings are confirmed by Scharfstein (1998), Rajan et al. (2000), and Dittmar and Shivdasani (2003).

It is important to note that the above evidence and the discussion refer to M&As conducted after the 1970s. For the M&As occurred prior to this period, the empirical literature reports that the market favoured diversifications into unrelated businesses. An extensive study of diversifying acquisitions by Akbulut and Matsusaka (2003) shows that unrelated acquisitions in the 1960s generated significantly positive abnormal returns to bidder shareholders[35], but were found to be value-destroying in later decades. Similarly, Morck, Shleifer and Vishny (1990) observe that stock returns to diversifying acquisitions were statistically insignificant from zero in the 1970s but became negative in the 1980s.

There is also a significant body of evidence (e.g. Lichtenberg, 1992, Liebeskind and Opler, 1993; and Montgomery, 1994) indicating that the proportion of diversifying takeovers in the total M&A activity has decreased following the conglomerate wave of the 1960s. The improved efficiency of the external capital markets in the 1980s is considered the foremost cause for this decline. Baker, Ruback and Wurgler (2004) explain this trend towards corporate focus and specialization from a behavioural corporate finance point of view. They argue that the conglomerate wave of the 1960s was in part driven as a managerial response to 'a temporary investor appetite for conglomerates'. Baker et al. (2004) state that the investors' demand for the shares of conglomerates

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[34] However, Kaplan and Weisbach (1992) do not find supporting evidence that diversifying acquisitions are less successful than related ones.

[35] Similar findings are reported in Matsusaka (1993), Klein (2001), Ravenscraft and Scherer (1987, 1989), Hubbard and Palia (1997).

was high during the 1960s and the market greeted diversifying acquisitions with positive announcement returns. The reduction in the size of such announcement effects[36] since 1968 suggests 'a switch in investors appetite' away from diversifications. As a response to this shift, managers divested unrelated segments and focused on the expansion of the firm's core business.

4.6 Explaining hostility in takeovers

Until recently, the market for corporate control existed mostly in the USA (Morck et al., 1988; Bhide, 1990; Martin and McConnell, 1991) and in the UK (Franks et al., 2001). However, as of the mid-1990s, an unprecedented number of hostile takeovers take place in Continental Europe (Martynova and Renneboog, 2006). More recently, hostile takeover activity emerged in Japan and China.

Jensen (1988) defines the market for corporate control as one where management teams compete with one another for the right to manage assets owned by shareholders. The team that offers the highest value to the shareholders takes over the right to manage the assets until it is replaced by another management team that discovers a higher value of the assets.[37]

Hostile takeovers are expected to occur when the target firm performs poorly and its internal corporate governance mechanisms fail to discipline managers. Evidence from Hasbrouck (1985), Palepu (1986), Morck et al. (1989), and Mitchell and Lehn (1990) supports this view. Hence, hostile takeovers are seen as an alternative corporate governance mechanism that corrects for opportunistic managerial behaviour (Jensen, 1988; Weisbach, 1993).

The view that hostile takeovers function as a corporate governance mechanism is often used to explain the trend of deconglomeration during the 1980s. Bhagat et al. (1990) and Shleifer and Vishny (1991) argue that hostile takeovers emerge in the 1980s as a response to the wave of the 1960s that produced a high number of inefficient conglomerates. The decline in the proportion of hostile takeovers in the 1990s may also result from the fact that a sufficient number of alternative governance mechanisms are now available (e.g. stock options, shareholder activism, non-executive director monitoring) that encourage management to focus on shareholder value and to restructure when necessary (Holmström and Kaplan, 2001).

In contrast, a growing number of empirical studies report that the disciplining function of hostile takeovers is not the primary motive for the target firm's managers to oppose takeover attempts. Hostility may also result from a bargaining strategy to extract a higher premium for the

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[36] For evidence see Akbulut and Matsusaka (2003), Klein (2001), Morck, Shleifer and Vishny (1990), Lang and Stulz (1994), Berger and Ofek (1995).

[37] This argument is valid in a frictionless world, but transaction costs, asymmetries of information, and agency conflicts can prevent efficient transfers of control.

target shareholders (Schwert, 2000) or from the target directors' viewpoint that the proposed takeover is incompatible with the target's long-term strategy (Lipton, 1979).

Some papers document that the accounting performance of the targets of hostile bids is not different from that of friendly acquisitions (Ravenscraft and Scherer, 1987; Martin and McConnell, 1991; Schwert, 2000; Franks and Mayer, 1996). Furthermore, Servaes (1994) and Goldstein (2000) report no evidence of pre-bid free cash flow problems for firms acquired in hostile takeovers. These findings are inconsistent with the prediction that hostile bids target poorly performing companies. Franks and Mayer (1996) and Franks et al. (2001) find no significant relation between high board turnover in hostile bids and underperformance in the year prior to UK bids. Instead, their evidence suggests that the opposition to the bid by incumbent directors reflects the disagreement over the price the bidder is willing to pay.

Another possible reason for bid opposition is the target management disagreement with the bidder's intentions to restructure the company (Lipton, 1979; Jensen, 1993). Holland (1996) shows that institutional raiders hunted for short-term excess gains by taking over firms against the will of the board of directors. Lipton (2001) characterizes this kind of takeover activity as 'two-tier, front-end-loaded, boot-strap, bust-up, junk-bond, hostile tender offers.' As such offers are likely to damage the interests of the long-term oriented shareholders of the target firm[38], a hostile attitude may be a rational managerial response.

The frequent incidence of bust-up hostile tender offers in the 1980s raised public concern in the US. This translated into the Massachusetts (1987) and Delaware (1988) anti-takeover laws that give unlimited power to the target managers to apply anti-takeover defence measures whenever they believe this is in the interests of their shareholders (Ricardo-Campbell, 1997). Since then, the use of statutory and charter amendments as a takeover defences by US corporations is widespread (Comment and Schwert, 1995). The regulatory change is believed to account for the substantial decline in the US hostile takeover activity in the 1990s.

As mentioned earlier, hostile takeovers were almost non-existent in Continental Europe during the 1980s, but occurred in unprecedented numbers during the 1990s. The absence of hostile threats in the 1980s is largely attributed to the concentrated ownership structure prevailed in Continental European firms. In contrast to the predominantly widely-held UK and US companies, most of Continental European companies are characterized by majority or near-majority stakes held by one or few investors.[39] Such voting rights concentration and the absence of a breakthrough rule makes these companies virtually invulnerable to hostile takeovers. In addition, closely-held

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[38] According to Lipton (1979), hostile takeovers of the 1980s had also indirect effect via demoralizing corporate managers and directors. That is, managers respond to the takeover market pressures by switching to short-term strategies to sustain growth, thereby forgoing beneficial long-term projects and investments.

[39] For recent evidence on ownership structure in Continental Europe and the UK, see Barca and Becht (2001), Faccio and Lang (2002) and the ECGI project "Corporate Governance & Disclosure in the Accession Process"(2001).

companies have less need of monitoring by the market for corporate control, because they can rely on large shareholder or creditor monitoring.

Political changes, regulatory reforms, and changes in business environment in the 1990s were the likely causes for the shift towards more hostility in European M&As. In particular, the increase in bid hostility in Continental Europe may be driven by: a gradual changes towards more ownership dispersion, a reduced complexity in ownership and control structures, weakened institutional barriers to takeovers (like the emergence of new equity markets, high IPO activity, privatisation and deregulation, binding disclosure requirements, and tax reforms), and a gradual shift of corporate priority from a stakeholder consensus model to a model based on shareholder value (Hansmann and Kraakman, 2003).

4.7 Summary of empirical evidence on the determinants of takeover waves

The empirical evidence listed above indicates that no single theory is able to explain takeover activity and M&A waves. The most consistent finding is that takeovers occurring early in the wave are triggered by industry shocks. These takeovers generate substantial (short-term) wealth to target shareholders and the combined companies are expected to create synergetic gains. The majority of value-destroying acquisitions occur in the second half of the takeover wave. Unprofitable takeovers are a result of both managerial hubris and agency problems. There is growing evidence that overvaluation of the acquiring firms is an important determinant of an increase in takeovers, especially those paid with equity or a combination of equity and cash. Finally, it is important to note that takeover profitability and the takeover patterns significantly vary across the M&A waves and across countries.

5. Conclusion and implications for future research

This chapter has surveyed the literature on the determinants of M&A activity, and compiled the findings for all five complete waves since the end of the 19th century for the US, the UK, and Continental Europe. We find that each M&A wave is characterised by a different set of underlying motives. A number of common factors can nonetheless be found. Takeovers usually occur in periods of economic recovery (following a market crash and economic depression caused by war, an energy crisis etc.). They coincide with rapid credit expansion, which in turn results from burgeoning external capital markets accompanied by stock market booms. The takeover market is also often fuelled by regulatory changes, such as anti-trust legislation or deregulation. Takeover waves are frequently driven by industrial and technological shocks. We also show that managers' personal objectives can further influence takeover activity: managerial hubris and herding behaviour increase

during takeover waves, often leading to poor acquisitions. Finally, takeover activity is usually disrupted by a steep decline in stock markets and a subsequent period of economic recession.

The bulk of M&As are expected to improve efficiency and trigger substantial share price increases at the announcement, most of which are captured by the target-firm shareholders. The difference in the pattern of M&As and their profitability across the decades may be attributed to the heterogeneity in the triggers of takeover waves. Technological, industrial, political, and social shocks, all have different consequences for corporate profitability and hence for the magnitude of synergistic gains in takeover transactions. This implies that, when answering the question whether or not takeovers will create or destroy value, it is important to understand why and when merger waves occur. It is not only important to determine whether a takeover takes place in a period with or without intensive M&A activity, but also to find out in which stage of an M&A wave a takeover occurs. Empirical evidence shows that takeovers occurring at a later stage of the takeover wave trigger lower gains to shareholders than those at the beginning of the wave (Moeller et al., 2005). This indicates that waves tend to pass their optimal stopping point and that unprofitable takeovers occurring later in the wave result from limited information processing, hubris, and managerial self-interest.

An important area which has received less academic attention is the decision process companies face to determine how to reorganize (by means of takeovers, spin-offs, recapitalizations, workouts, institutional buyouts or other transfers of control etc.). A joint analysis of these stories constitutes a prominent area for future research.

Another challenge in the field of M&As is the cyclical rise and fall of hostile takeover activity. While contested bids of the 1980s received a substantial attention from academic researchers, those of the 1990s have been largely ignored. The following issues remain to be addressed: What triggers time and country clustering of hostile takeover activity? Why were unfriendly acquisitions almost non-existent in Continental Europe during the 1980s, and occurred in unprecedented numbers during the 1990s? Do the pattern of contested bids and their profitability vary across the decades and countries? Do hostile tender offers bring about more managerial discipline?

In addition to the problems mentioned above, there are a number of other issues that have not been investigated fully in the literature. The aspects of cross-border mergers and acquisitions warrant comprehensive theoretical and empirical analysis. Differences in corporate law, corporate governance regulation, stock exchange regulation, accounting quality may have a significant impact on cross-border acquisitions while research remains limited on this topic. Finally, the decision to takeover another company or to resist a bid may also depend on non-economic factors, like the remuneration structure of the managers, their education and the networks they belong to. M&A research on such issues is still in its infancy.

CHAPTER 3.

MERGERS AND ACQUISITIONS IN EUROPE: OVERVIEW

1. Introduction.

It is now a well-known fact that mergers and acquisitions (M&As) come in waves. Golbe and White (1993) were among the first to document empirically the cyclical pattern of M&A activity. Thus far, five waves have been examined in the literature: those of the early 1900s, the 1920s, the 1960s, the 1980s, and the 1990s. Of these, the most recent wave was particularly remarkable in terms of size and geographical dispersion. For the first time, Continental European firms were as eager to participate as their US and UK counterparts, and M&A activity in Europe hit levels similar to those experienced in the US. It is widely believed that the introduction of the Euro, the globalisation process, technological innovation, deregulation and privatisation, as well as the financial markets boom spurred European companies to take part in M&As during the 1990s.

This chapter provides a comprehensive overview of the European takeover market. We characterize the main features of the domestic and cross-border corporate takeovers involving European companies in the period 1993-2001 and contrast them to those of takeovers in the second takeover wave of 1984-1989. We provide detailed information on the size and dynamics of takeover activity in 28 Continental European countries and the UK and Ireland.

The rest of this chapter is outlined as follows. In Section 2, we describe the evolution of the European market for corporate control in 1984-2001. Section 3 documents the intensity of domestic and cross-border intra-European mergers and acquisitions. Sections 4 and 5 analyse industry composition and payment structure of the European takeover waves. Section 6 investigates the evolution of hostile takeover activity in Continental Europe and the UK. Section 7 concludes.

2. The evolution of takeover activity in Europe

The most recent - the fifth - wave of mergers and acquisitions was particularly remarkable compared to its predecessors. For the first time, Continental European firms were as eager to participate in takeovers as their US and UK counterparts, and M&A activity in Europe hit levels similar to those experienced in the US. While the main engine of takeover activity in Europe during the 1990s was still the UK, M&As in Continental Europe have risen substantially both in number of deals and total transaction value compared to the previous decades. According to the Thomson Financial Securities Data, 87,804 M&A deals were recorded for Europe (including the UK) during

1993-2001. In contrast, there were only 9,958 such transactions during the fourth European merger wave (1983-89). The fifth wave in Europe is impressive in monetary terms as well, since its total value adds up to US$ 5.6 trillion (see Figure B-1), more than eight times the combined total of the fourth wave.
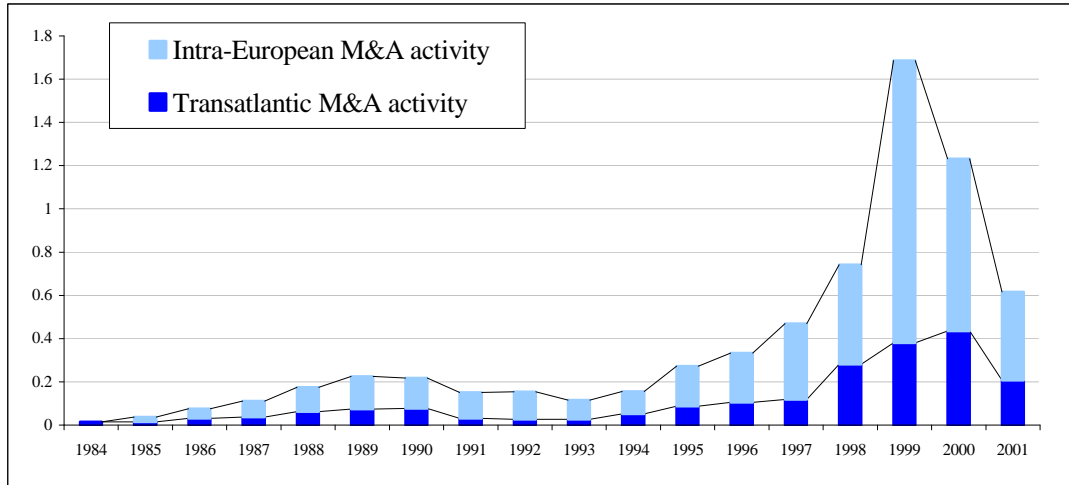
Figure B-1. European takeover activity, total value of deals (in US$ trillion)

As depicted in Figures B-1 and B-2, there was a pattern of strong growth in the European M&A market over the last twenty years. From being almost negligible in the beginning of the 1980s, the takeover market reached a level of 4,000 annual transactions by the end of the fourth takeover wave. Furthermore, it started with 7,000 M&As at the beginning of the fifth wave in 1993, and more than doubled by 2000.
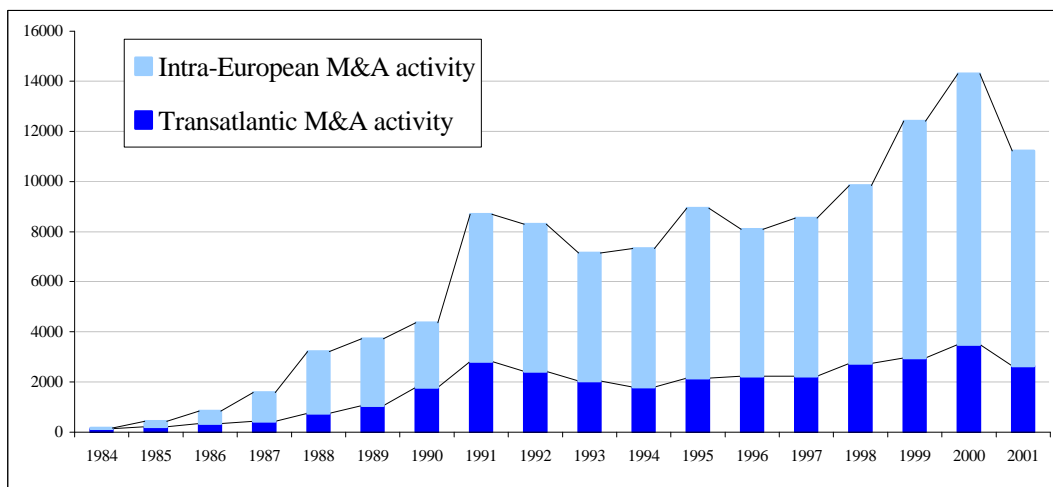
Figure B-2. European takeover activity: the total number of deals

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The growing M&A activity in the late 1980s was mainly due to a significant increase in the number of transatlantic deals (whereby US firms were most active as acquirers). The opposite is true for the market for corporate control in the 1990s: the surge can be largely explained by the increase in intra-European transactions while the number of transatlantic M&As remained relatively stable (on average 2,500 per annum). Much of the change in focus towards intra-European deals can be attributed to the challenges brought about by the development of the single European market and the introduction of the Euro in the 1990s. Fragmented and mostly domestically-oriented European companies resorted to takeover deals as a means to survive the tougher regional competition created by the new market. The introduction of the Euro has put additional pressure on firms, as it eliminated all currency risks within the Euro-zone and reduced the home bias of investors. Cross-border acquisitions are expected to yield cost advantages and are to enable firms to expand their business more rapidly abroad. Moreover, takeover activity was fuelled by the creation of a liquid European capital market which provides companies with new sources of financing (such as Euro-denominated bonds). As a result of such economic and structural changes on the Continent, the market for corporate control in Europe peaked at US$ 1.2 trillion in 1999, a marked contrast with the peak of the fourth merger wave which amounted to merely US$ 0.15 trillion.

3. Cross-border versus domestic acquisitions.

Of the intra-European M&As of the period 1993-2001, one third were cross-border deals Figure B-3 illustrates that the value of the international transactions account for nearly half of the total investment in M&As by the end of 1999, up from 22% in 1995. The figures also reflect the impact of some unprecedented mega-deals such as the acquisition of Mannesmann by Vodafone in 1999 (for US$ 202 billion).
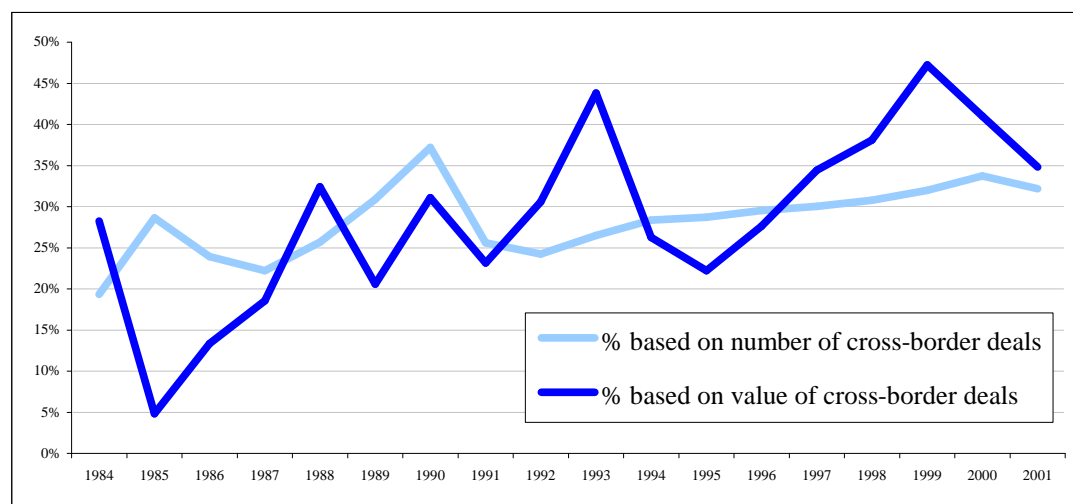
Figure B-3. Cross-border acquisitions as a percentage of all intra-European deals
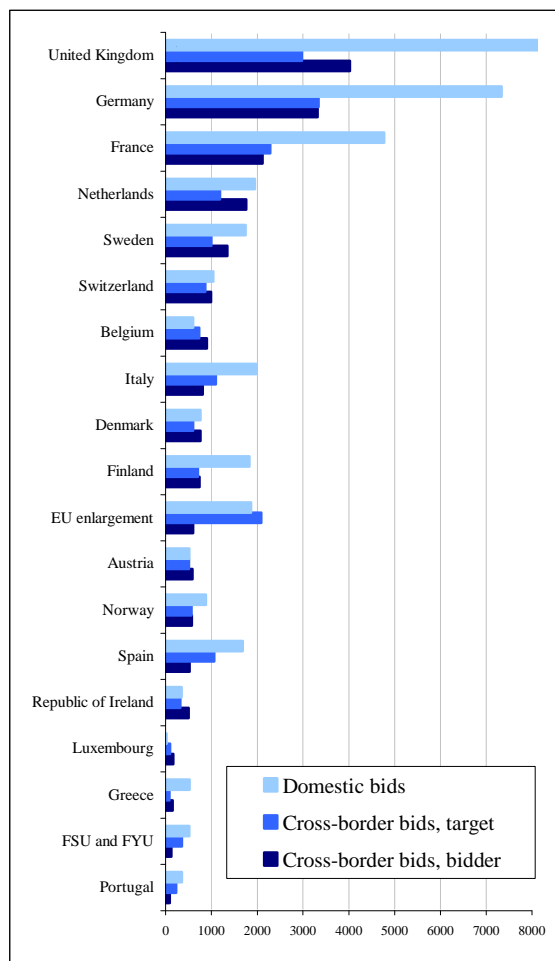
Figure B-4. Total value of M&As during 1993-2001 by country of bidding and target firms (US$ million).
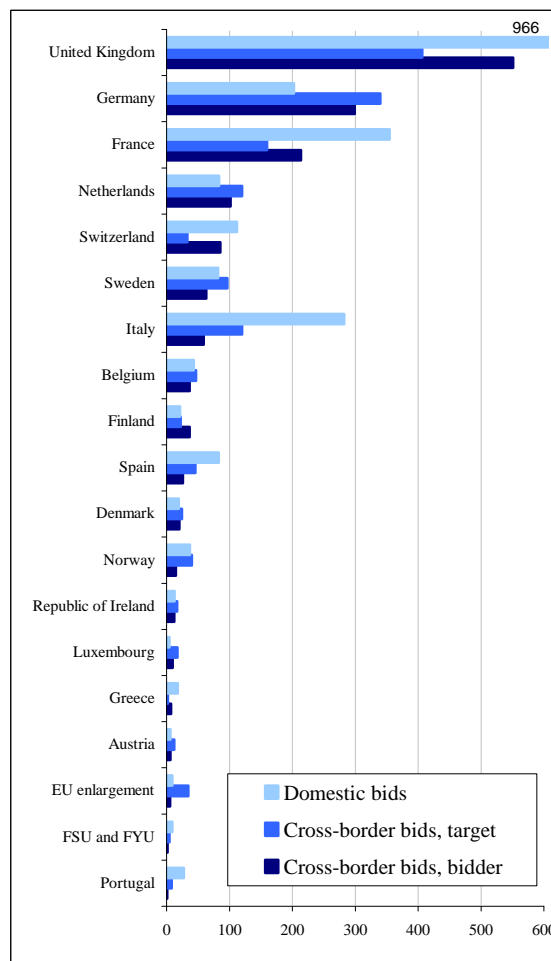
Figure B-5. Total number of M&As during 1993-2001 by country of bidding and target firms.

Figure B-4 shows that the most active participants in the intra-European cross-border market as acquirers were British, German, and French firms, which paid together more than US$ 1 trillion to take over foreign firms. These deals represented 70% of the total amount spent on intra-European cross-border M&As over the period 1993-2001. Firms from the UK, Germany and France were also most frequently the targets of cross-border acquisitions; they were sold for a total of US$ 0.9 trillion during the 5th takeover wave, amounting to about 60% of the overall value of cross-border M&As. The UK and France were the biggest net acquirers in cross-border takeovers, whereas Germany was a net receiver in the intra-European cross-border market. Figure B-5 sketches a similar picture based on the number of cross-border acquisitions. The number of cross-border deals surpassed the number of domestic ones in the Benelux countries, Austria, and Ireland. Another interesting observation relates to the Eastern European countries that joined the European Union in 2004. In these countries, many firms were acquired by West-European bidders, predominantly from neighbouring countries

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(Scandinavia, Austria, and Germany). Likewise, Italian, Spanish, and Portuguese firms were more frequently involved in M&As as targets (of German, British and French bidders) than as bidders.

4. Industry clusters, and focus versus a diversification strategies.

The differences in cross-border M&A patterns across the European countries partly result from restructuring needs in the major national industries. Processes like deregulation and privatization have led to cross-border consolidations in, amongst others, the financial sector and the utilities, by allowing former state-owned companies to acquire firms abroad and to have foreign investors participate in their equity capital. Also, the increasing R&D expenditures gave another boost to international M&As in the high-technology industries including biochemistry and pharmaceuticals (see Figure B-6). Figure B-7 illustrates the amounts invested through cross-border acquisitions by industry. Although small in terms of the number of deals, the takeovers in the telecommunication sector represented a total value of US$ 470 billion over the period 1993-2001. This accounts for a one third of the total value of cross-border acquisitions. Another 30% of such foreign investments went to the banking, natural resources, and utilities sectors (for a not insignificant extent through the reorganization of former state-owned firms). Figure B-8 shows similar patterns for the domestic M&A markets.
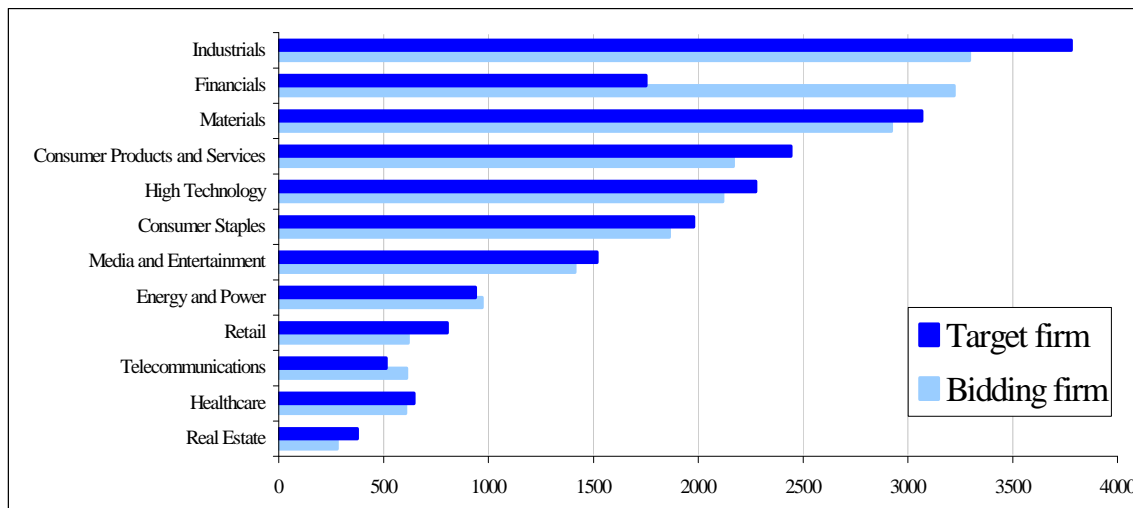
Figure B-6. Total number of cross-border M&As during 1993-2001 by primary industry
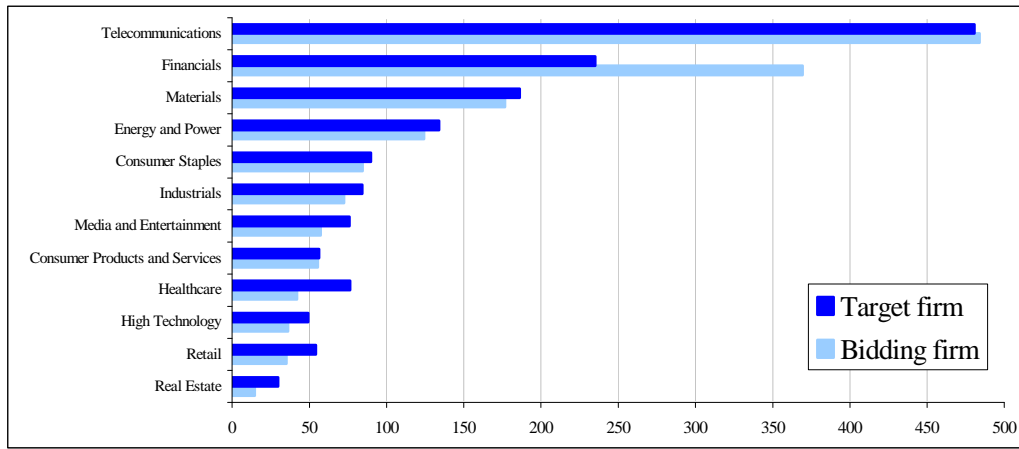
Figure B-7. Total value of cross-border M&As during 1993-2001 by primary industry
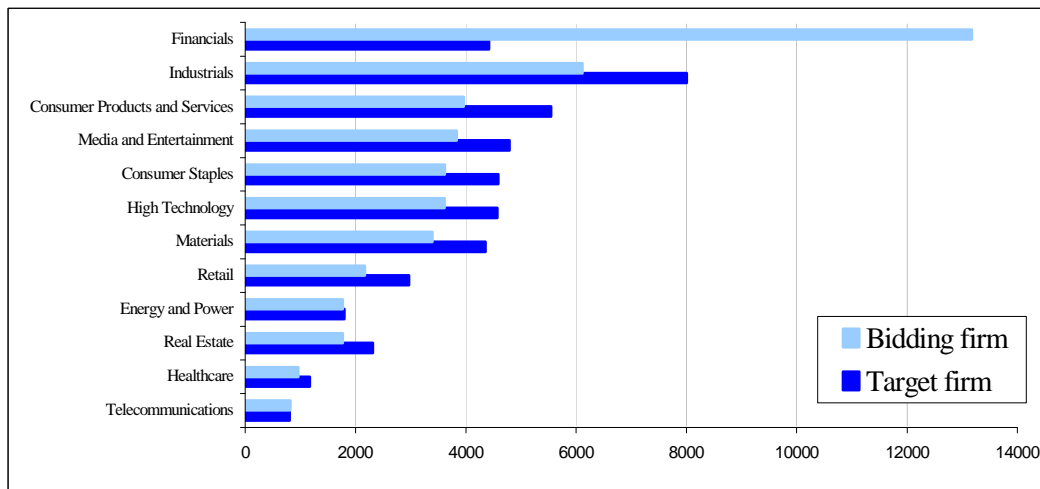
Figure B-8. Total number of domestic M&As during 1993-2001 by primary industry
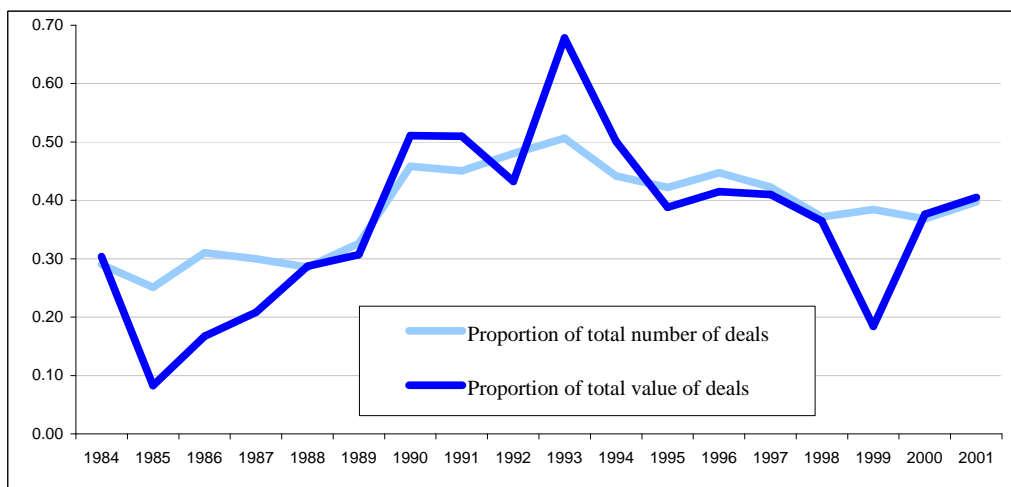
Figure B-9. Proportion of divestitures in total M&A activity

Table B-1 discloses that many cross-border M&As made in the 1990s were between firms from the same or related industries. This confirms that international business expansion was one of the goals inciting firms to participate in European cross-border M&As in the 1990s. The smaller percentage of deals within the telecommunication sector can be explained by the fact that the telecoms mainly engaged in vertical integration with high-tech firms. Such takeovers accounted for about 30% of the deals involving telecom acquirers. The fact that most of the domestic and cross-border deals (both horizontal and vertical ones) involved firms in related industries, consolidates the trend to focus on core business which started in the 1980s. Figure B-9 depicts that the percentage of total M&A related to divestitures increased (both in terms of number of deals and of takeover value) until 1993 but this effect clearly decreased over the 5th takeover wave. Thus, the steady decline in the relative number of divestitures is in line with the fact that the main incentive for European firms in the 1990s boiled down to business expansion in order to address the challenges of the new European market.

Table B-1. Intra-industry takeovers as a percentage of total number of cross-border and domestic European M&As

This table shows the percentage of intra-industry M&As based on the total number of all European takeover announcements within each industry during 1993-2001. An acquisition is classified as an intra-industry takeover if both bidding and target firms operate in the same industry (bidder's and target's 2-digit SIC codes are the same). The sample is partitioned into domestic and cross-border acquisitions.

	Cross-border bids, %	Domestic bids, %
Media and Entertainment	79.4	78.9
Consumer Staples	76.6	76.5
High Technology	72.4	71.9
Real Estate	72.4	75.0
Industrials	70.6	68.2
Materials	69.3	63.2
Healthcare	67.7	70.2
Retail	66.3	71.4
Energy and Power	65.0	65.0
Consumer Products and Services	62.0	62.5
Telecommunications	48.0	41.3
Financials	45.9	27.7

5. Means of payment.

Corporate growth via takeovers, often taking the form of mega-deals, requires considerable financial resources which forces cash-constrained firms to finance the acquisitions with equity or a combination of equity and debt. The boom of the stock market in the second half of the 1990s increased the attractiveness of equity as a means of payment for acquisitions. At the same time, the

European market for corporate bonds grew rapidly and provided another accessible source of funds. In addition, a European junk-bond market emerged. Low interest rates and a bank attitude more receptive to risky loans also facilitated M&A activity. Consequently, we observe a switch from cash toward equity and debt in the financial composition of the takeover bids.

Figure B-10 exhibits that the proportion of the total value of acquisitions paid in cash averaged about 67% in the 1980s, but declined to 40% over the 1990s. A similar pattern is perceived in the proportion of the number of pure cash deals, which fell by half in the last decade compared to the 1980s (see Figure B-11). Whereas the proportion of common equity used in acquisitions augmented to a high 39% of the total value of all acquisitions (in 1998), the relative number of all-equity bids in the 1990s was still rather small. As depicted in Figure B-11, the combination of equity, debt, and cash became the most popular method of payments for European M&As during 1991-2001, accounting for about 75% of all deals.
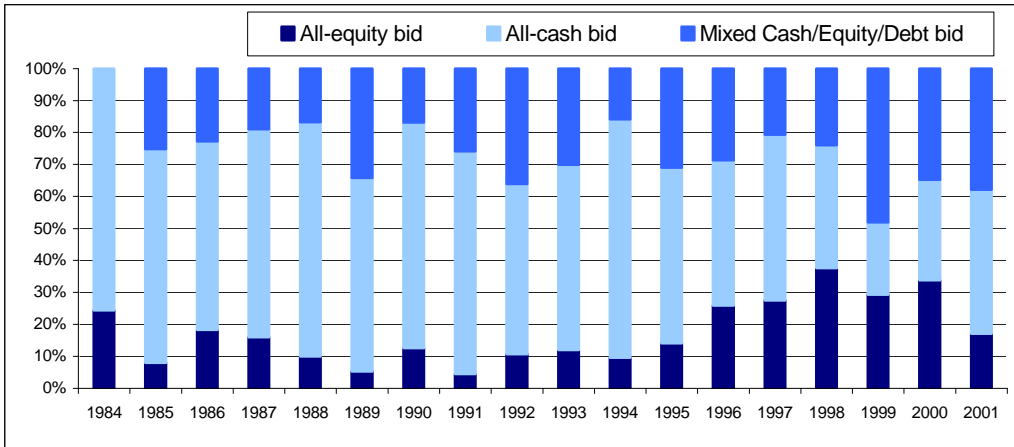
Figure B-10. Percentage of all-cash, all-equity, and mixed bids (based on total value of European M&A activity
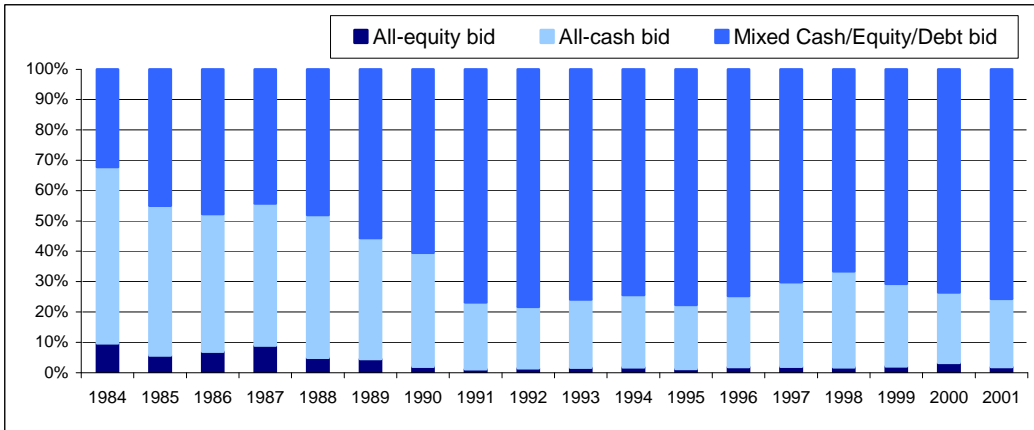
Figure B-11. Percentage of all-cash, all-equity, and mixed bids (based on total number of European M&As)

It is commonly believed that the bull market of the 1990s caused a switch from cash to equity financing in M&A deals: the overvaluation of equity provides bidders with a cheap currency to pay for their acquisitions. Figure B-12 provides some supporting evidence: whereas the relative number of all-cash transactions is inversely related to the changes in the market index, the trend in all-equity bids is positively correlated to the market. Moreover, there is a clear relation between the choice of the payment method and the size of a takeover (see Figure B-13). Firms with insufficient cash resources to finance large acquisitions have increasingly resorted to a combination of equity and debt, but the very large transactions are fully financed with equity. Figure B-13 also confirms that the average value of the M&As, especially of the all-equity bids, augments in line with the market index over the 1990s.
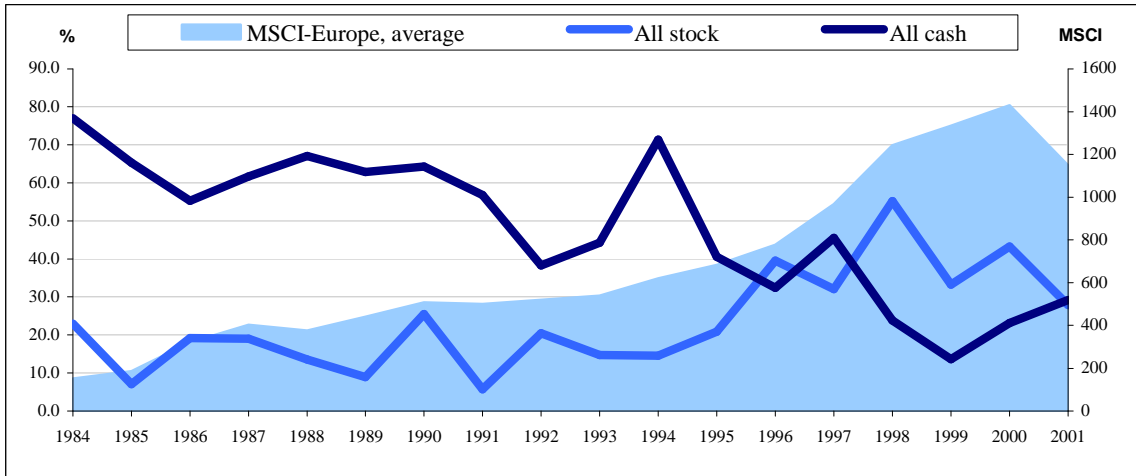
Figure B-12. Percentage of all-cash and all-equity bids (based on total value of M&As)
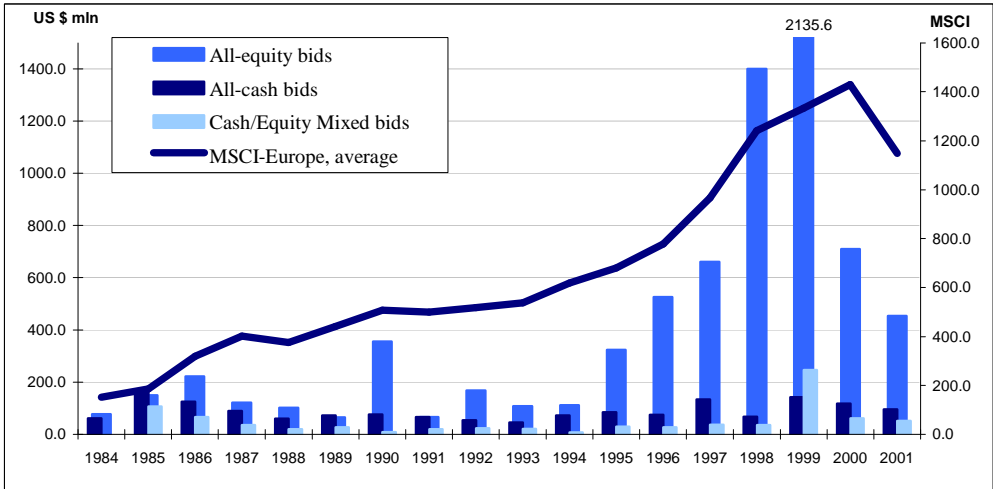
Figure B-13. Average value of all-cash, all-equity, and mixed bids initiated by listed bidders

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6. Hostile takeovers.

Paying too high a price for a target firm is more likely to occur when takeover activity is peaking because the bids become more aggressive and trigger more frequently opposition by the target firm. Figures B-13 and 14 show that in 1999, at the peak of the fifth European wave, the average value of deals and the number of hostile bids are both standing out. In that year, an unprecedented number of hostile deals with a total worth of US$ 501 billion (about half the total value of all M&As in 1999) occurred.
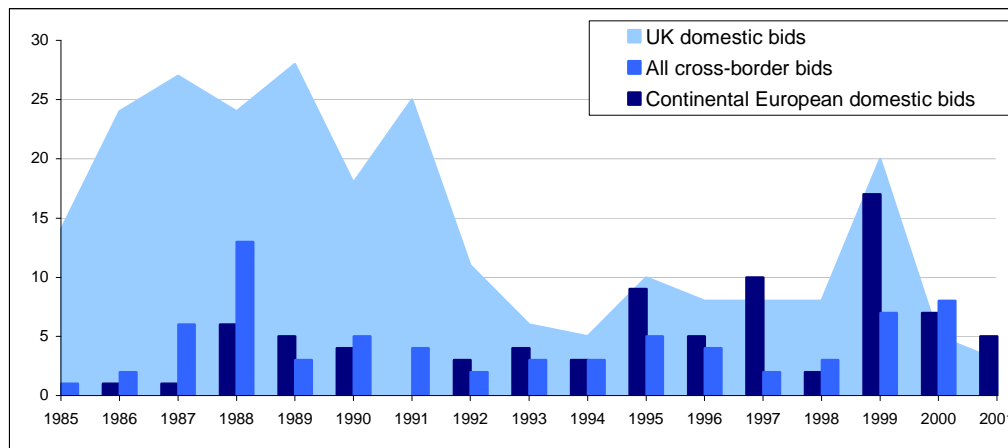
Figure B-14. The number of European hostile takeovers

Theoretically, fewer hostile takeovers are expected when the stock market is climbing, as target shareholders prefer to sell their shares when they are likely to be overpriced. Figure B-14 depicts that this is indeed the case for the UK domestic takeovers. In this country, the number of hostile bids in the past decade significantly fell compared to the 1980s. In contrast, the domestic bids in Continental Europe and the cross-border bids increased in both number and value compared to the previous wave. Moreover, hostile takeover activity in Europe during the 1990s emerged even in countries in which there was none before. Many hostile bids, which would have been opposed by the political and financial establishment in the 1980s, were welcomed in the 1990s. This last observation is predominantly valid for domestic takeovers, as in the case of cross-border bids, governments still tend to protect national champions and erect barriers for foreign raiders.[40]

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[40] It is believed that the French and Italian governments are rather successful in protecting their national champions. In these countries, hostile cross-border acquisitions hardly ever succeeded in the 1990s. The French and Italian governments encouraged (often inefficient) mergers between national firms to create large national corporations and hence made these firms immune against acquisitions by foreign firms. Examples are the acquisition of Telecom Italia by Olivetti (although it was a hostile bid, its success was largely due to do support by Italian government. that blocked the bid for Telecom Italia by Deutsche Telecom) or the merger between the French supermarket chains Carrefour and Promodes preventing their acquisition by the American chain Wal-Mart.

7. Conclusion

This chapter provides a comprehensive overview of the European takeover market. We examine the main features of the domestic and cross-border corporate takeovers facing European companies in 1990-2001 and contrast them to those of the takeovers of the fourth takeover wave (1984-1989). Our analysis reveals that (i) a substantial proportion of intra-European M&As in the 1990s were cross-border transactions; (ii) both cross-border and domestic M&A activity tended to occur between firms in related industries; (iii) the financial structure of takeover bids in the 1990s switched from a dominance of cash to a combination of equity, debt and cash, and – specifically for the largest transactions - to all-equity; (iv) the number of hostile bids in Continental Europe increased over the 1990s, whereas the number of hostile transactions in the UK domestic market has decreased compared to the 1980s wave. These characteristics of the M&A sample suggest that takeovers in the 1990s mainly occurred for reasons of cost cutting, expanding into new markets, or exploiting the mispricing premium.

CHAPTER 4.

THE PERFORMANCE OF THE EUROPEAN MARKET FOR CORPORATE CONTROL: EVIDENCE FROM THE 5TH TAKEOVER WAVE

1. Introduction

The fifth global wave of mergers and acquisitions (M&As) which took place in the 1990s stands out as the largest and most diverse of the last century. For the first time, Continental European (CE) firms were as eager to participate in the market for corporate control as their US and UK counterparts, such that European takeover activity hit levels similar to those experienced in the US. Since the middle of 2003, takeover activity has picked up in Europe, continuing the industry consolidation trend of the 1990s. Despite these developments, empirical research on M&A activity remain mostly confined to the UK and US and there is little known about how well the Continental European market for corporate control performs relative to other regions.

The purpose of this chapter is twofold. First, we carry out an in-depth analysis of the performance of corporate takeovers conducted by European firms during the fifth takeover (1993-2001). Our sample comprises 2,419 mergers and acquisitions that involve companies from 28 European countries, including those from Central and Eastern Europe. The performance of European M&As is measured by the changes in the value of bidding and target firms in the period around the transaction announcement. As potential determinants of the takeover gains we consider the characteristics of the bidding and target firms and of the bid itself. This study contributes to the restricted literature on European M&As in several ways. First, in contrast to Goergen and Renneboog (2004) who examine only the largest European M&As, this chapter studies both large and small takeover transactions. Moeller et al. (2003) document that the focus on large takeovers may give an incomplete picture of the impact of acquisitions on shareholder wealth, as large acquisitions tend to be less profitable than the small ones. Second, we examine takeover performance over the different phases of the firth takeover wave. Indeed, a limitation of the existing European M&A studies (see e.g. Campa and Hernando, 2004) is their focus on takeovers conducted in the peak of the fifth takeover wave. For the US, Moeller et al. (2005) show that acquisitions in 1998-2001 generate large losses to bidding firms' shareholders, while earlier transactions in that decade result in positive gains.

The second purpose of this chapter is to investigate whether a wide range of institutional structures and legal rules have an impact on how takeovers are perceived at their announcement. Continental European transactions are conducted in a corporate environment very different from that of the UK. In comparison to their British peers, companies from the Continent have a more concentrated ownership structure (Faccio and Lang 2002) and operate in an environment with weaker investor protection, less developed capital markets (LaPorta et al. 1998), and less strict insider trading regulation (Bhattacharya and Daouk, 2004).[41] A growing literature advocates that the corporate environment influences the cost of capital, corporate performance, and the distribution of benefits among corporate stakeholders (e.g. La Porta et al., 1997, 2002; Mork et al., 2000; and Levine, 1998, 1999).[42] We argue that regulation is also likely to have an impact on the patterns of M&A activity. Hence, the main research question we ask in this chapter is whether and to what extent the specifics of CE corporate governance and regulatory systems (relative to those of the UK) influence the anticipated performance of takeovers.

In a nutshell, our main findings are the following. We find that European M&As are expected to create takeover synergies since their announcements trigger substantial share price increases. However, most of the takeover gains are captured by the target firm shareholders: the

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[41] It is important to note that mentioned above characteristics of the corporate environment in CE countries are valid for the period of the 1990s and may be no longer true for the later (earlier) periods.

[42] The empirical literature documents that weak corporate governance combined with weak enforcement of the law distorts the efficient allocation of resources, undermines the ability of companies to compete internationally, and hinders investment and economic development.

cumulative abnormal returns (CARs) at the announcement captured by the targets amount to 9% on average, considerably larger than the (still statistically significant) 0.5% accruing to the bidding firms. We establish that the characteristics of the target and bidding firms and of the bid itself have a significant impact on takeover returns. First, hostile takeovers and tender offers trigger substantially larger price reactions to the target shareholders than do friendly M&As. Second, investors discount the bidder and target's share prices at the announcement of all-equity offers relative to cash bids. Third, target shareholders gain higher premiums in cross-border takeovers. Fourth, the acquisition of a private firm generates significantly positive abnormal returns for the bidder's shareholders. We also demonstrate that takeovers occurring when takeover activity is slowing down trigger lower gains to both bidder and target shareholders than do deals at the beginning of the wave.

While some of these results have been documented for other markets of corporate control (e.g. US), a comparison of the UK and CE M&A markets reveals that the corporate environment is an important factor affecting the market reaction to takeovers: (i) In case a UK firm is taken over, the abnormal returns exceed those in bids involving a CE target. This difference in premiums seems to be caused by a more strict takeover legislation in the UK than in the CE countries. The UK regulation protects the target shareholders better against expropriation by the bidder and gives them more power to extract higher premiums in takeover negotiations. (ii) The presence of a large shareholder in the bidding firm has a significantly positive effect on the takeover returns in the UK and a negative one in Continental Europe. This suggests that the market views the role of major shareholders differently in the two corporate governance regimes. (iii) Weak investor protection and low disclosure environment in Continental Europe enable bidding firms to invent takeover strategies that allow them to act opportunistically towards target firm's incumbent shareholders; more specifically, partial acquisitions and acquisitions with undisclosed terms of transaction. Whereas these types of transactions are virtually non-existent in the UK, they prevail in a large number in CE countries. We find that such transactions lead to substantial losses to the shareholders of both bidding and target firms.

The rest of the chapter is outlined as follows. In Section 2, we review the determinants of the share price reactions to takeover announcements and hypothesize potential differences between UK and CE M&As. Section 3 describes the data sources, sample statistics, and methodology, while section 4 investigates market reaction to takeover announcements and relates it to different takeover characteristics in a univariate analysis framework. In Section 5, we investigate the determinants of the announcement returns in a multivariate framework. Section 6 concludes.

2. The determinants of the market reaction to takeover announcements

2.1 Predictions of the existing literature

An M&A announcement brings new information to the market, such that investors' expectations about the firm's prospects are updated and reflected in the share prices.

Both the theoretical and empirical M&A literature have shown that a variety of attributes affect the value of bidding and target firms at the announcement of corporate takeovers.[43] Empirical studies, mainly based on UK and US mergers and acquisitions, document that changes in the share price of the bidding and target firms at the takeover announcement depend on the characteristics of the transaction: the geographical scope of the takeover (domestic versus cross-border M&As), the form of and the attitude towards the bid (opposed bids, unopposed tender offers, friendly M&As), the success or failure of the negotiations (successfully completed or withdrawn bid), the legal status of the target firm (listed versus privately-held), the industry scope of the deal (focus versus diversification), the means of payment (all-cash, all-equity, mixed offer), and the sub-period of the takeover wave in which the bid was announced (the run-up, the peak and the decline of the wave). The market combines these pieces of information into a signal about the quality of the bidding and target firms and of the potential value creation. The share prices are then adjusted accordingly. Table C-1 summarizes the theoretical predictions and empirical evidence on the relationship between takeover characteristics and the market reaction to takeover announcements.

2.2 CE versus UK corporate takeovers: potential differences

There are fundamental differences between the Anglo-American takeover markets, and that in Continental Europe: the typical CE firm has a more concentrated ownership structures (Faccio and Lang 2002), operates in an environment with weaker investor protection, and with less developed capital markets (LaPorta et al. 1998), and is subject to less strict insider trading regulations (Bhattacharya and Daouk, 2004).

These differences may become apparent in several ways. First, CE biding firms may adopt opportunistic takeover strategies such as partial acquisitions and acquisitions with undisclosed terms of transaction, which are prevented by law in the UK. Second, the market may regard takeovers by CE firms with large blockholders negatively, as these deals may result in expropriation of the bidder's minority shareholder rights. Such expropriation is facilitated in corporate governance regimes with weak legal minority protection.[44] Third, a lack of efficient takeover regulation in Continental Europe makes target shareholders less powerful relative to the bidder, which allows the bidder to capture a larger part of takeover gains. Fourth, CE executive directors/investors who are

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[43] For an overview of the evidence on the wealth effects of M&A activity and the motives for takeovers, see Jensen and Ruback (1983), Jarrell et al. (1988), Agrawal and Jaffe (2000), Bruner (2003).

[44] Weak investor protection may also have a direct impact on the market valuation of takeover benefits. Bris and Cabolis (2005) document that the regulatory environment in both the bidding and target firms' countries have significant impact on premiums paid in M&As. The relationship between the level of investor protection and premiums paid in M&As is relatively complex and its analysis goes beyond the scope of this paper. We leave a detailed analysis of this relationship to a separate paper.

informed about a forthcoming takeover may turn to illegal trading on inside information, whereas such behaviour is more effectively prevented in the UK. Below we discuss how these specific aspects of the CE market for corporate control may affect the bidder and target's share price reactions to takeover announcements

2.2.1. Opportunistic takeover strategies

Weak investor protection may enable acquirers to adopt takeover strategies that allow them to act opportunistically towards the target's incumbent shareholders (Bertrand et al., 2002). Partial acquisitions may turn the target's incumbent shareholders into minority shareholders, whose rights could be expropriated by the acquirer due to poor legal protection. That is, when the protection of minority shareholders is not addressed at the regulatory level, bidders may be tempted to use partial acquisitions to extract private benefits of control at the detriment of the target's shareholders. To protect the target shareholders from being expropriated by the bidder, regulators typically introduce a mandatory bid rule (Goergen et al., 2005). The rule obliges bidders acquiring a controlling share block to make an offer for all the remaining shares outstanding at a fair price.[45] For instance, partial acquisitions of majority control are virtually impossible. However, the number of partial acquisitions may be high in countries where the mandatory bid rule is not enforced (such as Germany and Sweden). In these countries, we expect target shareholders to dislike partial acquisitions and react negatively to their announcements.

Acquisitions with undisclosed terms of transaction (such as means of payment and transaction value) are another strategy that enables bidding firms to behave opportunistically. When disclosure requirements are low, the management or the controlling shareholder of the bidding firm may conceal the details of the bid. When a takeover with undisclosed terms of transaction is announced, we expect investors to be aware of potential expropriation and react negatively.

2.2.2. The role of bidder's large blockholders in takeovers

The presence of a large shareholder in bidding firms may have a significant impact on the market reaction to takeover announcements. However, this impact may differ between countries (it may be positive for UK firms and negative for CE firms), as the market views the roles of the major shareholders in the two corporate governance regimes as being different. When ownership and control are dispersed, small shareholders cannot effectively monitor management and mitigate potential conflicts of interest between management and shareholders due to coordination problems. Ownership concentration resolves this problem, as major shareholders have strong incentives to monitor management and replace it in poorly performing companies (Franks at al., 2001). Therefore,

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[45] The definitions of a controlling share block and fair price vary across countries. UK takeover regulation imposes a mandatory bid to be made when the bidder acquires 30% of the target firm's equity and the fair price to be equal to the highest price paid for pre-bid purchases (Goergen et al., 2005).

investors may regard the presence of a large blockholder in a UK bidding company as a credible signal that the takeover decision is driven by motives of profit maximization.

However, the gains from having the firm's management monitored by a large blockholders may be wiped out by the agency costs associated with opportunistic behaviour of the blockholder towards minority shareholders. In takeover context, the costs arise when major blockholders use acquisitions as an instrument to transfer wealth from minority shareholders to themselves (Faccio and Stolin, 2004). This type of acquisitions is more likely to be observed in CE countries, where concentrated corporate ownership structures prevail but the rights of minority shareholders are relatively low. Since minority shareholders are likely to fear potential expropriation, we expect the market to react negatively to the announcements of takeovers by CE bidders controlled by a major shareholder.

2.2.3. Takeover regulation

Takeover regulation plays a crucial role in shaping the pattern of M&A activity. Importantly, it affects the distribution of the bargaining power and thereby of the takeover surplus between the bidder and the target. Regulatory provisions that make target shareholders more powerful relative to the bidder (such as the mandatory bid rule, the sell-out right, and takeover defence measures) redistribute the takeover surplus from the bidder to the target shareholders (Goergen et al., 2005). However, in countries lacking this type of regulation, most of the takeover surplus is captured by bidding firms leaving the target's shareholders with lower returns. Similarly, Rossi and Volpin (2004) report that targets earn higher premiums in countries where the mandatory bid requirement is enforced by law. Goergen et al. (2005) advocate that the UK has adopted a more strict takeover legislation than CE countries. Therefore, we expect higher takeover premiums to be offered in takeover bids made to British companies.

2.2.4. Insider trading

When insider trading is not effectively regulated, insiders are more likely to trade on non-public information (Bris, 2005). This implies that part of the valuation effect of takeovers is already incorporated in the share price prior to the announcement day (Bhattacharya et al., 2000). In this case, the takeover valuation effect is likely to be captured in the share price run-up realised prior to the bid. Bhattacharya and Daouk (2004) document that among European countries the UK has the toughest insider trading law. These are then CE countries where takeovers are preceded by illegal trading on inside information.[46]

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[46] However, Bris (2005) shows that insider trading laws make profitable to violate them, and hence countries with the toughest regulation may face bouts of illegal activity.

Table C-1. Determinants of the anticipated gains to the bidder's and target's shareholders

	Empirical evidence	Expected effect on Bidder's CARs	Expected effect on Target's CARs

GEOGRAPHICAL SCOPE:

BIDDER & TARGET: In cross-border acquisitions, bidding and target firms are likely to benefit by taking advantage of imperfections in international capital, factor, and product markets (Hymer, 1976); by internalising the R&D capabilities of target companies (Eun et al., 1996); and by expanding their businesses into new markets (as a response to globalisation trends).

	Empirical evidence	Bidder	Target
	Eun et al. (1996);	(+) Cross-border takeover	(+) Cross-border takeover

BIDDER & TARGET: Regulatory and cultural differences between the bidder and target countries may lead to difficulties in managing the post-merger process and hence failure to achieve merger synergies. Anticipating such difficulties in cross-border bids, the market may discount the expected takeover gains (Schoenberg, 1999).

	Conn et al. (2005); Moeller and Schlingemann (2004)	(-) Cross-border takeover	(-) Cross-border takeover

TYPE OF ACQUISITION:

BIDDER: Partial acquisitions are likely to take place when the acquisition is too risky or the bidding firm has insufficient financing capacity to acquire 100% of the target equity. Partial acquisitions are also associated with potential conflicts of interest that may arise between the bidder and the remaining target shareholders after the acquisition. Hence, the market is expected to react less favourably to partial acquisitions than to full acquisitions.

TARGET: Bidding firms may use partial acquisitions (acquisitions of majority control but not of 100% control) to expropriate the target firms' minority shareholders (Faccio and Stolin, 2004). It follows that such acquisitions may create less value and are associated with significantly lower returns to the target shareholders than are acquisitions in which the bidder intends to obtain full control (100% of the equity).

	Not Available	(+) M&A of 100%	(+) M&A of 100%

FORM OF AND ATTITUDE TOWARDS THE BID:

BIDDER: Shareholders of the bidding firms fear that their firm will offer too high a premium if the target's management opposes the bid or if the offer is made directly to the target shareholders (bypassing the board of directors). The anticipated upward revisions in the offer premium erode the synergy values accruing to the bidder.

TARGET: Market expects that opposition against the bid will lead to the upward movement of the target's share price at the announcement of a hostile bid.

	Franks and Mayer (1996); Gregory (1997); Goergen and Renneboog (2004)	(-) Opposed (or hostile) bid / (-) Tender offer	(+) Opposed (or hostile) bid / (+) Tender offer

BID COMPLETION STATUS:

BIDDER: If takeovers are positive net present value investments, then unsuccessful bidder returns should reflect the loss of profitable investment opportunities (Ruback, 1983)

TARGET: Withdrawn takeover bids may lead to share price increases for target firms. This increase itself may be one of the reasons the bid ultimately fails, as a bidder is likely to withdraw its bid if target shareholders demand too high a premium. The post-announcement CARs of target firms may also be positively influenced by the withdrawal of the bid. The reason is that investors get relieved that the bid is withdrawn and that they

	Bradley, Desai, and Kim (1983)	(-) Withdrawn	(+) Withdrawn

	Empirical evidence	Expected effect on Bidder's CARs	Expected effect on Target's CARs
anticipate other, more profitable bids.			
TARGET: A bid withdrawal may lead to negative market reactions when investors fear that their firm's management blocked the takeover in order to protect its own interests, which diverge from those of the shareholders.	Goergen and Renneboog (2004)		(-) Withdrawn
BIDDER & TARGET: In pending acquisitions, the gains for bidder's and target's shareholders are expected to fall as a reaction to ongoing uncertainty	Unknown	(-) Pending	(-) Pending

LEGAL STATUS OF THE TARGET FIRM:

BIDDER: Takeover bids for privately-held companies may lead to higher bidder returns than do bids for public firms. The reason is that the shares of privately-held firms are by definition illiquid that may create a price discount. Also, takeover negotiations with the owners of a private firm may have a better chance of succeeding than when a public tender offer has to be launched for a widely-held firm (Burkart, Gromb, and Panunzi, 1997). Moreover, an all-equity offer to a private firm may create an outside blockholder in the bidding firm and hence bring about more managerial discipline (Chang, 1998).	Moeller et al. (2004); Faccio et al. (2004); Fuller et al. (2002)	(+) Private target	
BIDDER: The acquisition of a private firm may entail considerably more risk for the acquirer due to the fact that the information available about the true value and growth potential of the firm may be less reliable. Therefore, an acquisition of a private target may be followed by negative market reaction	Bradley and Sundaram (2004)	(-) Private target	

INDUSTRY SCOPE:

BIDDER: Although diversifying (or conglomerate) acquisitions are expected to create operational and/or financial synergies, the creation of diversified firms is associated with a number of disadvantages such as rent-seeking behavior by divisional managers (Scharfstein and Stein, 2000), bargaining problems within the firm (Rajan et al., 2000), or bureaucratic rigidity (Shin and Stulz, 1998). These disadvantages of diversification may outweigh the alleged synergies and result in wealth destruction for the shareholders of the bidding firm. Diversifying mergers themselves may be an outgrowth of the agency problems between managers and shareholders (Shleifer and Vishny, 1989). As such, they are expected to destroy value	Morck et al. (1990); Maquieira et al. (1998); Doukas et al. (2002)	(-) Diversifying acquisition	(+) Diversifying acquisition
TARGET: Investors expect bidders pursuing diversification strategies to bid more aggressively and hence pay higher takeover premiums than do bidders adhering to a focus strategy. This is because diversifying acquisitions are more likely to occur when bidding firms suffer from agency conflicts and free cash flow problems. In the literature, there is evidence that the managers of such firms often acquire unrelated businesses for personal reasons at the expense of shareholder value (e.g. for 'empire building' purposes), or that managerial hubris leads bidding firms to pay too high premiums.			

MEANS OF PAYMENT:

BIDDER: If the managers of a bidding firm are convinced that the true value of their firm's shares is higher than the current share price, they will prefer not to issue equity (to finance an all-equity bid or a mixed offer) and will rather offer to pay with cash. Hence, the market may interpret the financing choice as a signal about a firm's under- or overvaluation and revise the share price of the firm offering cash (equity) upwards	Moeller et al (2004); Andrade et al. (2001);	(-) Equity payment (+) Cash payment	(-) Equity payment (+) Cash payment

	Empirical evidence	Expected effect on Bidder's CARs	Expected effect on Target's CARs
(downwards) (Myers and Majluf, 1984). Thus, a negative price correction is expected for all-equity bids and a positive one for all-cash bids. *TARGET*: A cash bid is interpreted as a positive signal about the target firm's quality as the bidding firm is buying out the target shareholders and is hence not willing to share future value increases. Hence, the target's share price rises more for an all-cash deal than for an equity exchange.	Franks et al. (1991)		
BIDDER & TARGET: Shareholders of the bidding and target firms get wary about the deal when the terms of the takeover are not disclosed. They may suspect that the transaction may lead to the expropriation of their rights either by the management or by the controlling shareholder. Therefore, share prices of both firms are expected to decline	*Unknown*	(-) Undisclosed terms of transaction	(-) Undisclosed terms of transaction

SUB-PERIODS OF THE 5th TAKEOVER WAVE:

	Empirical evidence	Expected effect on Bidder's CARs	Expected effect on Target's CARs
BIDDER: The bidders bid more aggressively during the takeover wave peak, hence their gains are expected to decline *TARGET:* Correspondingly, the gains to the target shareholders are expected to raise	Shelton (2000)	(-) Peak of the takeover wave	(+) Peak of the takeover wave
BIDDER & TARGET: Takeovers occurring at a later stage of the wave may suffer from limited information processing, managerial hubris, and managerial self-interest and hence trigger lower returns to bidder and target shareholders than do those at the beginning of the wave (Harford, 2003)	Harford (2003); Moeller et al. (2005)	(-) Later stage of the takeover wave	(-) Later stage of the takeover wave
BIDDER: High valuations realized during the periods of equity market booms increase managerial discretion, and make it possible for executives to make poor acquisitions when they have run out of good ones (Jensen, 2004). We expect more poor acquisitions in the later stage of the wave.	Moeller et al. (2005)	(-) Peak and later stage of the takeover wave	

3. Data sources, descriptive statistics and methodology

3.1 Sample selection

We select our original sample of European acquisitions undertaken during the fifth takeover wave (1993-2001) from the Mergers and Acquisitions Database of the Securities Data Company (SDC). The SDC data were filtered down to intra-European domestic and cross-border takeovers, whereby both the acquirer and the target are from countries within Continental Europe and the UK. Our sample also includes deals involving firms from Central and Eastern Europe. We retain only those M&As that satisfy the following requirements: (i) the transaction involves a change in control[47]; (ii) either the bidder or target shares (or both) are traded on a European stock exchange; (iii) both parties in the transaction are independent corporations;[48] (iv) neither the bidder nor the target is a financial institution (bank, unit trust, mutual fund or pension fund); (v) the period between two consecutive bids by the same acquirer is not less 300 trading days;[49] (vi) financial and accounting data for at least one of the participants of the transaction are available in DataStream or in the Amadeus, Fame or Reach databases of Bureau van Dijk.

The quality of the SDC data is verified by comparing its information on the announcement date, the companies' countries of origin, the transaction value, payment structure, share of control acquired, bid completion status, and the target's attitude towards the bid with information from the news announcements stored in LexisNexis, the Financial Times, and Factiva.[50] We find that the SDC records for M&As from our sample frequently do not coincide with those of the other sources. These inconsistencies have been amended by replacing contradictory SDC information with the new one extracted from the news announcements. All in all, amendments were made in about 36% of our final sample.[51]

The ownership and control structure of the bidding and target firms prior to the takeover announcement is collected from a variety of sources described in Data Appendix 1 (in the end of the book). To control for dual class shares, pyramidal ownership structures, multiple control chains, and cross-holdings, all of which prevail in CE companies, we focus on corporate control structures rather

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[47] We require either that the transaction leads to a combination of the firms or that the acquirer who held less than 50% of the target's stock prior to the transaction acquires full control (increases its ownership position to more than 50%).

[48] Divestitures and management buyouts are not included.

[49] The reason is that we want to avoid contamination of the windows used to estimate systematic risk. Therefore, we exclude bids by the same acquirer within less than 300 trading days from the previous announcement (240 days estimation period ending 60 days before the event).

[50] We consider all news announcements available in English, French, German, Dutch, Italian, Spanish, Swedish, Portuguese, Russian, Czech, and Polish languages. For the French, German, Italian, Spanish, Swedish, and Portuguese, we use WorldLingo online translator (www.worldlingo.com).

[51] The percentage refers to all M&As from our sample for which at least one deal characteristic reported in SDC does not coincide with that from the other sources and hence it was replaced. Most of the inconsistencies found in the SDC records regard the bid completion status, share of control acquired, and the transaction value.

than ownership structures. To identify the ultimate control structure of a firm, we follow the methodology presented in Barca and Becht (2001) and Faccio and Lang (2002). First, we consider only shares bearing voting rights. Second, as control depends on both direct and indirect ownership of voting equity, we accumulate the voting stakes directly or indirectly controlled by the same ultimate shareholder. When a target company is private, we assume that ownership and control concentration in this firm amounts to 100%.

3.2 Sample summary statistics

Our final sample of European M&A announcements consists of 2,419 deals involving firms from 28 European countries. The sample characteristics are described in tables C-2 through C-4.

3.2.1. Sample composition by deal characteristics

According to panel A of table C-2, about 70% of the intra-European takeover bids target a domestic firm. The relative number of cross-border bids within Europe has been gradually increasing over time, starting with 23% in the beginning of the fifth takeover wave and reaching 32% in its end. Moeller and Schlingemann (2004) document a similar tendency for US takeovers. Takeovers resulting in a full acquisition of the target's shares comprise 60% of the sample over the period 1993-2001. In the remaining deals, the bidder acquires majority control. The fraction of acquisitions of partial control has augmented near the end of the takeover wave. One reason is there is a high number of large M&A transactions in 1998-2001, which are relatively more risky for the bidding firms and requires considerable financial resources. A desire to diversify the risk of these mega-deals and limited financing capacity may force bidders not to bid for all the equity of target firms.

Our sample comprises 162 (7%) opposed (or hostile) bids, 473 (19%) unopposed tender offers and 1,784 (74%) friendly M&As. We classify an acquisition as *opposed* if the board of directors of the target firm reacts negatively to the bidder's initial offer for whatever reason.[52] Further, within the *unopposed* takeovers, we also distinguish between bids conducted in form of a public tender offer (unopposed tender offers) and bids conducted in form of a merger or a private purchase of a control block (friendly M&As).[53] Panel A of table C-2 shows that the frequency of

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[52] It should be noted that a negative reaction to the bid may result either from the target's bargaining strategy to extract a higher premium (Schwert, 2000), or from the target directors' viewpoint that the proposed strategic plan underlying the acquisition is incompatible with the target firm's own strategy (Lipton, 1985).

[53] An *unopposed tender offer* is a public offer to the target shareholders asking them to sell their shares for cash and/or equity at a pre-specified price or equity exchange ratio, while the board of directors of the target firm does not react negatively to the bid (issue negative comments about the bid). An acquisition is considered to be successful if a sufficient number of shares are tendered such that the bidder gains control over the target. A *merger* refers to the consolidation of the assets of two firms, which is approved by both the shareholders of the target and the shareholders of the bidding firms. Generally, the majority of 2/3 or more of shareholder votes of each firm is required for the

friendly M&As is especially high in the beginning (1993-96) and in the end of the takeover wave (2000-01), whereas the frequency of unopposed tender offers in highest in the period of the takeover wave peak (1997-99). Opposed takeovers are least frequently observed when the takeover wave slows down (2000-01).

Table C-2. Sample composition and characteristics of M&A deals

Panel A shows the number of all the takeover announcements and partitions this sample into: (i) domestic and cross-border deals; (ii) acquisitions of 100% control and acquisitions of partial control; (iii) friendly M&As, unopposed tender offers, and opposed (by the target's board) bids; (iv) completed, pending, and withdrawn bids; (v) privately held and public target firms; (vi) diversifying deals and focus-oriented transactions, and (vii) all-cash, all-equity, mixed offers and deals with undisclosed terms of transaction. Panel B provides characteristics of takeover transaction for the whole sample and for the sub-samples of takeovers launched by UK and CE firms. Mean [Median] values of the variables are reported. All variables are defined in Appendix C-I.

PANEL A: SAMPLE COMPOSITION BY M&A ANNOUNCEMENT YEAR										1993-2001	
	1993	1994	1995	1996	1997	1998	1999	2000	2001	%	Num
Total number of M&As	**171**	**229**	**228**	**229**	**229**	**292**	**411**	**408**	**222**		**2,419**
% of all M&As in 1993-2001	7.1	9.5	9.4	9.5	9.5	12.1	17.0	16.9	9.2	100.0	
% OF M&A DEALS BY CATEGORY:											
Domestic bid	76.6	74.7	69.7	73.4	69.9	66.1	68.1	65.9	67.6	69.5	*1,681*
Cross-border bid	23.4	25.3	30.3	26.6	30.1	33.9	31.9	34.1	32.4	30.5	*738*
Merger or Acquisition of 100%	55.6	54.1	60.5	62.9	60.3	37.7	37.2	41.7	39.6	60.0	*1,451*
Acquisition of Partial Control (< 100%)	44.4	45.9	39.5	37.1	39.7	62.3	62.8	58.3	60.4	40.0	*968*
Opposed (by target's board) bid	7.6	5.7	10.1	5.2	7.4	6.2	7.8	6.6	3.2	6.7	*162*
Tender offer (unopposed by target's board)	13.5	13.5	18.9	17.0	24.5	23.3	23.6	18.6	18.0	19.6	*473*
Friendly M&A	78.9	80.8	71.1	77.7	68.1	70.5	68.6	74.8	78.8	73.7	*1784*
Completed bid	75.4	77.3	81.6	82.5	83.4	86.0	83.7	76.5	73.0	80.2	*1,941*
Withdrawn bid	12.3	10.9	10.1	5.7	11.8	7.2	7.3	6.9	8.6	8.6	*207*
Pending bid	12.3	11.8	8.3	11.8	4.8	6.8	9.0	16.7	18.5	11.2	*271*
Private target	69.0	69.9	62.7	72.9	62.0	62.0	54.5	62.7	62.6	63.2	*1,530*
Listed target	31.0	30.1	37.3	27.1	38.0	38.0	45.5	37.3	37.4	36.8	*889*
Industry Focus (same 2-digit SIC code)	65.5	56.8	63.6	57.2	66.8	70.9	67.9	64.0	63.1	64.4	*1,558*
Diversification (different 2-digit SIC code)	34.5	43.2	36.4	42.8	33.2	29.1	32.1	36.0	36.9	35.6	*861*
All-Cash bid	28.1	32.3	36.8	39.7	43.7	38.4	43.1	40.4	39.2	38.8	*938*
All-Equity bid	19.3	15.7	13.6	11.4	17.9	10.3	14.6	15.0	14.0	14.4	*349*
Mixed (Cash-and-Equity) bid	26.3	16.2	19.7	23.1	14.0	17.8	16.5	14.7	18.9	17.9	*434*
Undisclosed terms	26.3	35.8	29.8	25.8	24.5	33.6	25.8	29.9	27.9	28.9	*698*

merger to succeed (the required percentage may vary across countries). A *private purchase* of a control block refers to all transactions in which the bidder purchases a controlling share block by means other than a tender offer. This category usually comprises acquisitions of private targets or direct purchases of a share block from a large shareholder of the target firm.

PANEL B: CHARACTERISTICS OF M&A DEALS						
	Whole Sample		UK bidders		CE bidders	
	Mean	[Med]	Mean	[Med]	Mean	[Med]
Transaction value (US$ mln)	1,487	[24]	422	[16]	3,093	[59]
Percentage of target shares the bidding firm intended to own after the bid	87.3	[100.0]	95.1	[100.0]	81.3	[95.0]
Percentage of target shares the bidder accumulates prior to the bid (toehold)	4.6	[0.0]	2.3	[0.0]	6.4	[0.0]
▪ Bidding firms that accumulate a toehold prior to the bid (%)	15.1		8.8		19.7	
▪ Size of the toehold they accumulate (%)	30.1	[33.3]	25.7	[29.4]	31.6	[34.5]
Number of observations	*2419*		*995*		*1424*	

About 9% of all takeovers in our sample ultimately fail as a consequence of successful opposition to the bid or a collapse of the friendly takeover negotiations. The rest of the sample is divided into successfully completed M&As (80%) and pending negotiations in which the bid has been announced but has not been completed or withdrawn (11%).[54] In many of the pending bids, the bidder announces its intention to acquire control over the target firm, but the acquisition occurs in several steps. That is, at the announcement, the bidder acquires a large stake of, say, 25% and pledges to acquire control (the remaining 25-75%) in the near future. The relative number of withdrawn bids hits the highest levels in the beginning of the fifth takeover wave (1993-95), whereas pending acquisitions occur with high frequency in the end of the wave (2000-01).

Panel A of table C-2 also indicates that a large part of takeover bids are made on privately held target firms (63%), while the remainder (37%) are bids on publicly owned targets listed on a stock exchange. The frequency of M&As involving public targets substantially increases in the second half of the takeover wave (1997-01), reaching its peak in 1999 (46% of the deals), when the M&A activity was at its strongest.

Expansion within the same industry seems to be a dominant takeover strategy during the 1990s. Sixty-four percent of all the M&A announcements refer to bidders and targets operating in the same sector or related industries[55], while the remainder are diversifying acquisitions. The highest percent of focussed acquisitions is observed in 1997-99.

Of the 1,721 bids where the payment method is disclosed, the majority (54%) are all-cash offers. This percentage is lower than the 80% reported for European all-cash M&As in Faccio and Masulis (2005). The difference may be driven by the exclusion of divestitures (acquisitions of other firms' subsidiaries) and cross-border acquisitions of US targets, which represent a substantial fraction of Faccio and Masulis' sample and are mostly pure cash offers. Panel A of table C-2 reports that, of all the bids involving equity payments, about half are pure equity-exchange offers. The other

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[54] We checked the status of all bids which were labeled as 'pending' in the SDC database. We used LexisNexis and Factiva and changed the completion status when pending bids were ultimately completed or withdrawn. For a number of bids, no further information was ever released in the financial press.

[55] We define 'companies in related industries' as firms of which the primary 2-digit SIC codes coincide. Changing this definition to the 3-digit SIC classification, does not materially change the results in the remainder of the paper.

half are mixed offers that consist of 53% cash, 47% stock, and less than 1% of loan notes, on average. Our sample also includes 698 bids (29% of the sample) that lack information about the method of payment and transaction value. The highest proportion of M&As with undisclosed transaction terms is observed in Austria (68% of all bids in the target's country), Germany (67% of all bids in the target's country), and Switzerland (57% of all bids in the target's country). None of UK target firms is involved in takeovers with undisclosed terms of transaction, as such lack of disclosure would violate UK transparency regulation.

In panel B of table C-2, the characteristics of the takeover deals are detailed. We organize this information according to the geographical origin of the bidding firm (UK versus Continental Europe). The average takeover deal is worth US$ 1,487 million. This figure is considerably influenced by outliers, as the median value of transactions barely exceeds US$ 24 million.[56] The average size of CE takeovers exceeds the size of their UK peers more than seven times.

Interestingly, bidders from the Continent intend to hold only 81% (95% median) of the target shares after the bid completion, while UK bidders seek to own 95% (100% median).[57] Bidders' preferences regarding their ultimate ownership in the target firm are affected by takeover regulation. For instance, UK Takeover Code obliges bidders to make a mandatory bid to purchase all shares of the target firm after it has acquired a share block of 30%. However, this type of requirements was virtually non-existent in many CE countries (such as Germany and Sweden) during most of the 1990s.[58] Therefore, compared to their UK peers, bidders from the Continent have more freedom in initiating acquisitions of partial control. The impact of takeover regulation on the takeover bids is further supported by evidence that the size of the toehold that UK bidders accumulate prior to the bid (averaged over the ones who have decided to do so) is about 25% with a median of 29%, just below the 30% mandatory bid threshold. The size of the toehold accumulated by CE bidders is somewhat higher: 32% (35% median).[59]

3.2.2. Sample composition by countries of bidding and target firms

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[56] The largest acquisitions by year are: the US$ 1.5 billion bid by Lagardere Group for Matra-Hachette (both are located in France); the US$ 2.5 billion bid in 1994 by Enterprise Oil for Lasmo (both are UK firms); the US$ 5.5 billion bid in 1995 by Granada Group for Forte (both are UK firms); the US$ 30 billion bid in 1996 by Ciba-Geigy for Sandoz (both are located in Switzerland); the US$ 3.5 billion bid in 1997 by Rallye for Casino Guichard Perrachon (both are French firms); the US$ 35 billion bid in 1998 by Britain's Zeneca Group for Sweden's Astra; the US$ 202 billion bid in 1999 by Vodaphone for Mannesmann; the US$ 14 billion bid in 2000 by Vodafone for Spain's Airtel; and the US$ 7 billion bid in 2001 by Germany's E.ON (formerly Veba/Viag) for Britain's Powergen.

[57] We focus on the percentage of the target's shares that the bidder *ex-ante intends* to own after the bid and not on the percentage that the bidder *obtains ex-post* because our sample comprises withdrawn and pending acquisitions, in which the bidder acquires less than or nothing of what it was intended. We also refer to the percent of target's shares the bidder *intends to own after the bid* and not on the percent of shares the bidder *intends to acquire* because some firms accumulate a stake in the target firm (toehold) already prior to the bid.

[58] For a detailed overview of differences in takeover regulations across European countries and see Goergen et al. (2005)

[59] The difference in mean toeholds of UK and CE bidders is statistically significant at the 1% level. Importantly, only 9% of British firms actually decide to purchase a toehold. The figure is twice lower than the percent of bidders with a toehold in Continental Europe.

Table C-3 shows that the UK is the dominant market for corporate control in Europe: half of the domestic takeover transactions occur in the UK and one fifth of all the bidders in intra-European cross-border acquisitions are UK firms. Proportionally, UK firms are targeted less frequently: merely 12.7% of the European target firms are headquartered in the UK – a percentage similar to that for Germany and France. Unsurprisingly, given the dispersed nature of ownership in UK firms, most hostile bids are concentrated in this country: 61% of the domestic and 41% of the cross-border hostile bids (from the target firms' perspective) take place in the UK. The second and third largest markets for corporate control in Europe are Germany and France; they respectively account for 10% and 13% of all domestic bids, and 12% and 15% of all cross-border bids. Not to be underestimated is the Scandinavian M&A market, especially in its impact on cross-border takeover activity in Central Europe. Relative to the other major economies in Europe, takeover activity in Italy is remarkably low. Firms located in the countries that joined the European Union in 2004 are attractive takeover targets, being involved in 15% of all cross-border M&As. In contrast, the involvement of such firms as bidders in cross-border acquisitions is negligible, as is the domestic takeover market in Central Europe.

3.2.3. Characteristics of the bidding and target firms

The characteristics of the bidding and target firms are reported in Table C-4. Relative to target firms, bidders in European M&As tend to be larger and to have better growth opportunities (as reflected by the market capitalization and the Q-ratio). Also, bidding firms are somewhat less leveraged than targets (21% versus 23%, respectively). Target firms have a higher percentage of collateral (38%) than do bidders (31%). Table C-4 also shows that the corporate performance (return on assets (ROA), and cash flow to sales) and investment activity (capital investments to total assets) of targets and bidders are similar.

Some attributes are significantly different between targets and bidders from the UK and Continental Europe. Table C-4 shows that UK firms (both bidders and targets) outperform their CE peers in terms of sales, growth opportunities, and ROA. Furthermore, UK companies are less leveraged and have more collateral. These differences are likely to follow from differences in the regulatory environment of the UK and Continental Europe. A growing literature advocates that the legal system in the UK ensures better investor protection and corporate focus on shareholder value than do the corporate governance regimes of CE countries (La Porta et al., 1997). In turn, this may result in higher company valuations and growth potential (La Porta et al., 2002; Himmelberg et al., 2002)

Table C-3. Sample composition by countries of bidding and target firms

		Domestic deals					Cross-border deals, Classification by bidder country					Cross-border deals, Classification by target country				
		All	*% by country*	Friendly M&A	Tender Offer	Opposed bid	All	*% by country*	Friendly M&A	Tender Offer	Opposed bid	All	*% by country*	Friendly M&A	Tender Offer	Opposed bid
1	Austria	11	*0.7%*	11	0	0	31	*4.2%*	30	1	0	20	*2.7%*	16	1	3
2	Belgium	23	*1.4%*	22	1	0	34	*4.6%*	28	5	1	14	*1.9%*	11	3	0
3	Bulgaria	0	*0.0%*	0	0	0	0	*0.0%*	0	0	0	2	*0.3%*	2	0	0
4	Croatia	0	*0.0%*	0	0	0	1	*0.1%*	1	0	0	6	*0.8%*	6	0	0
5	Cyprus	3	*0.2%*	3	0	0	2	*0.3%*	1	1	0	0	*0.0%*	0	0	0
6	Czech Rep.	9	*0.5%*	8	1	0	1	*0.1%*	1	0	0	25	*3.4%*	25	0	0
7	Denmark	30	*1.8%*	21	3	6	32	*4.3%*	25	6	1	21	*2.8%*	16	4	1
8	Estonia	0	*0.0%*	0	0	0	0	*0.0%*	0	0	0	13	*1.8%*	13	0	0
9	Finland	53	*3.2%*	52	0	1	32	*4.3%*	29	2	1	20	*2.7%*	19	0	1
10	France	219	*13.0%*	176	30	13	111	*15.0%*	92	10	9	89	*12.0%*	81	7	1
11	Germany	175	*10.4%*	165	8	2	89	*12.0%*	71	14	4	94	*12.7%*	91	2	1
13	Hungary	4	*0.2%*	4	0	0	5	*0.7%*	5	0	0	3	*0.4%*	3	0	0
14	Ireland	11	*0.7%*	6	4	1	27	*3.6%*	18	7	2	16	*2.2%*	10	5	1
15	Italy	39	*2.3%*	32	4	3	28	*3.8%*	24	3	1	44	*5.9%*	43	0	1
16	Latvia	0	*0.0%*	0	0	0	1	*0.1%*	1	0	0	4	*0.5%*	4	0	0
17	Lithuania	1	*0.1%*	1	0	0	0	*0.0%*	0	0	0	6	*0.8%*	5	1	0
18	Luxemburg	0	*0.0%*	0	0	0	7	*0.9%*	6	1	0	5	*0.7%*	4	1	0
19	Netherlands	2	*0.1%*	1	1	0	27	*3.6%*	16	10	1	45	*6.1%*	37	7	1
20	Norway	58	*3.5%*	44	9	5	32	*4.3%*	29	1	2	37	*5.0%*	23	7	7
21	Poland	22	*1.3%*	22	0	0	0	*0.0%*	0	0	0	37	*5.0%*	34	3	0
22	Portugal	1	*0.1%*	1	0	0	1	*0.1%*	1	0	0	11	*1.5%*	10	1	0
23	Romania	2	*0.1%*	2	0	0	0	*0.0%*	0	0	0	11	*1.5%*	11	0	0
24	Russia	10	*0.6%*	10	0	0	3	*0.4%*	3	0	0	10	*1.4%*	9	1	0
25	Slovenia	0	*0.0%*	0	0	0	0	*0.0%*	0	0	0	4	*0.5%*	2	2	0
26	Spain	46	*2.7%*	33	6	7	9	*1.2%*	4	5	0	33	*4.5%*	30	3	0
27	Sweden	102	*6.1%*	62	29	11	69	*9.3%*	59	7	3	48	*6.5%*	38	10	0
28	Switzerland	22	*1.3%*	19	1	2	39	*5.3%*	26	10	3	28	*3.8%*	22	4	2
29	UK	836	*49.9%*	483	274	79	159	*21.5%*	136	19	4	94	*12.7%*	41	40	13
	Total	1679	100.0%	1178	371	130	740	100.0%	606	102	32	740	100.0%	606	102	32

Table C-4. Characteristics of bidding and target firms

This table reports financial, accounting, and control structure characteristics of bidding and target firms and partitions this sample into UK and CE firms. All variables are defined in Appendix C-I. The table reports the mean [median] values of variables. For binary variables, medians are omitted. The variables Blockholder >20% and Blockholder >60% are binary: they equal 1 if at least one blockholder reaches the specified percentage of voting rights. The mean values for these variables represent the percentage of firms with concentrated ownership in the analyzed sample. For private target companies, we assume that a single investor owns 100% of control. CE stands for Central European.

	BIDDING FIRM						**TARGET FIRM**					
	All bidders		**UK bidders**		**CE bidders**		**All targets**		**UK targets**		**CE targets**	
	Mean	[Med]	Mean	[Med]	Mean	[Med]	Mean	[Med]	Mean	[Med]	Mean	[Med]
FINANCIAL CHARACTERISTICS:												
Market value (US$ mln)	2,572	[244]	2,418	[156]	2,691	[341]	929	[90]	699	[77]	1,159	[105]
Q-ratio	2.51	[1.17]	3.20	[1.49]	2.04	[0.98]	1.50	[0.98]	1.40	[1.02]	1.62	[0.89]
Number of observations	*2,109*		*992*		*1,117*		*760*		*393*		*367*	
ACCOUNTING CHARACTERISTICS:												
Total Assets (US$ mn)	3,965	[316]	1,588	[136]	5,602	[468]	1,188	[153]	562	[103]	1,865	[245]
Sales / Total Assets	1.23	[1.17]	1.36	[1.24]	1.14	[1.03]	1.31	[1.22]	1.44	[1.30]	1.16	[1.12]
Cash Flow / Sales	0.07	[0.09]	0.07	[0.09]	0.08	[0.09]	0.09	[0.07]	0.05	[0.07]	0.14	[0.07]
Investments / Total Assets	0.02	[0.01]	0.01	[0.00]	0.03	[0.01]	0.02	[0.00]	0.01	[0.00]	0.03	[0.01]
Leverage	0.21	[0.18]	0.19	[0.15]	0.22	[0.21]	0.23	[0.20]	0.20	[0.18]	0.26	[0.24]
Collateral	0.31	[0.27]	0.34	[0.29]	0.29	[0.25]	0.38	[0.33]	0.41	[0.37]	0.35	[0.30]
Returns on Assets	0.28	[0.24]	0.36	[0.31]	0.22	[0.19]	0.28	[0.23]	0.37	[0.31]	0.18	[0.16]
Number of observations	*2,271*		*992*		*1,279*		*2,122*		*928*		*1,194*	
CONTROL STRUCTURE:												
Control (%)	31.7	[25.8]	13.6	[11.9]	38.8	[34.9]	78.4	[100.0]	74.2	[100.0]	81.4	[100.0]
▪ Private Target	32.4	[26.7]	14.6	[10.6]	38.9	[35.0]	100.0	[100.0]	100.0	[100.0]	100.0	[100.0]
▪ Listed Target	30.2	[23.0]	11.8	[8.3]	38.6	[34.9]	31.5	[26.9]	11.9	[9.9]	38.9	[34.9]
Blockholder >20%	0.58		0.08		0.77		0.89		0.77		0.93	
▪ Private Target	0.60		0.10		0.78		1.00		1.00		1.00	
▪ Listed Target	0.53		0.07		0.75		0.67		0.08		0.81	
Blockholder >60%	0.16		0.02		0.21		0.74		0.71		0.75	
▪ Private Target	0.16		0.02		0.21		1.00		1.00		1.00	
▪ Listed Target	0.15		0.01		0.21		0.14		0.01		0.19	
Number of observations	*1,582*		*624*		*958*		*2,006*		*704*		*1,302*	

UK and CE firms differ not only in terms of performance and capital structure, but also in terms of ownership and control. On average, the largest blockholder of a CE bidding firm ultimately controls 39% of the voting rights, which is significantly higher than the average voting stake (14%) held by the dominant shareholder of a UK bidding firm. For CE bidders, we detect at least one dominant shareholder with voting power in excess of 20% in more than three quarters of the firms, and a blockholder holding a large majority of voting rights (60% and more) in 21% of the firms. In contrast, UK bidders are characterized by dispersed ownership structures, as only 8% have a

shareholder with a significant blockholding of at least 20% of voting rights. The ultimate ownership structures of our bidders are similar to those reported for the UK and Continental Europe by Faccio and Lang (2002). Given that there is no mandatory ownership disclosure for privately held firms, we assume that the ownership concentration amounts to 100%. The reason is that many non-listed firms are likely to be controlled by one or a group of large investors. On average, we find little difference between the control structures of target and bidder firms by region (the UK and Continental Europe).

3.3 Methodology

3.3.1. Abnormal returns and test statistics

In order to measure the short-term wealth effects prior to, at and after the takeover announcement, we apply an event study methodology. That is, the short-term shareholder wealth effect at the takeover announcement is computed as the sum of daily abnormal returns realized in the period starting 60 days prior and ending 60 days subsequent to the event day.[60] We also consider alternative event windows within the [-60, +60] interval. Daily abnormal returns are computed as the difference between realized and market model benchmark returns. The market model uses the MSCI-Europe index and the parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.[61] To test for significance of the estimated abnormal returns, we use two parametric test statistics (the portfolio test and the standardized test) as proposed by Brown and Warner (1985) and the non-parametric Corrado test (Corrado, 1989).[62]

3.3.2. Correction for potential sample selection bias

We recognize that the regression analysis of the share price reaction to takeover announcements may suffer from a censoring problem. The analyzed sample of successful, pending, and withdrawn M&As excludes deals in which bidders initially decided not to bid. Factors such as financial constraints, growth opportunities, and share price performance are likely to be important determinants of the bidder's decision (not) to perform a takeover. In other words, we may observe fewer takeovers by bidders with low cash holdings, high leverage, small size, underperforming share price, or poor growth opportunities, which may bias our test results. To control for this potential

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[60] The event day is either the day of the announcement or the first trading day following the announcement in case the announcement is made on a non-trading day.

[61] Our estimates of the abnormal returns are robust with respect to the different choices of the market index (local, European-wide, and worldwide index) and the estimation model of the benchmark returns (the estimated beta adjusted for mean-reversion (Blume, 1979), and non-synchronous trading (Dimson, 1979)). Changing the market index or the estimation model does not materially change the results in the remainder of the paper.

[62] The portfolio test statistic assumes that the CARs are larger for securities with a higher variance. Hence, equal weights are given to the returns of individual securities. The standardized test statistic assumes that the true CARs are constant across securities and gives more weight to the securities with a lower variance of the CARs. For reasons of conciseness, we only show the non-parametric test statistics; the results of the parametric tests do not change the interpretation of the results and are available upon request.

bias, we employ Heckman's (1976, 1979) procedure for a sample-selection correction. Applying a Probit analysis on the full sample of European firms (and subsamples of CE and UK firms), we estimate the probability that a firm will undertake an acquisition. The resulting parameters are used to compute Heckman's λ for each bidding firm in our sample. We include Heckman's λ as an additional regressor into the regression analysis of the bidder's CARs. If the null hypothesis that Heckman's λ is insignificant cannot be rejected, censoring is not a significant problem in our sample and hence does not lead to sample selection biases in our estimation procedure.

4. Market reaction to takeover announcements (Univariate analysis)

In this section, we focus on univariate analyses of bidder and target CAARs realized in intra-European M&As. We relate the CAARs to the various characteristics of target and bidding firms and of the bid itself: these include the location of the target (domestic versus cross-border M&As), the type of the takeover (a full takeover versus the acquisition of majority control), the form of and the attitude towards the bid (opposed bids, unopposed tender offers, friendly M&As), the success or failure of the negotiations (successfully completed, pending, or withdrawn bid), the legal status of the target firm (listed versus privately-held), the business expansion strategy (focus versus diversification), the means of payment (all-cash, all-equity, mixed offer, or undisclosed means of payment), and the sub-period of the takeover wave in which the bid was announced (the run-up, the peak and the decline of the wave). We also investigate variation in the market reaction to takeover announcements across deals that involve firms of different legal origin.

4.1 Market reaction to takeover announcements: total sample

Table C-5 reports that the announcement of a takeover bid accrues positive abnormal returns to the bidder shareholders: on the event day, a small average abnormal return of 0.5% is realized on average, though it is statistically significant at the 1% level. Over a 10-day window centred around the event day, the average CAAR amounts to 0.8%. Strikingly, the CAARs of bidding firms generated over the 3-month period subsequent to the bid are significantly negative (–3%).

In comparison to the bidder CAARs, the price reactions for the target firms are substantial: on the event day, an abnormal return of 9% is realized on average. In addition, there is a significant increase in the target share price in the two months (40 trading days) prior to the initial public announcement. On average, investors who own shares in the target firm two months prior to the event day and sell their shares at the end of the event day would earn a premium of 21% above the expected return. The overall findings suggest that the majority of takeover deals is expected to generate synergy values, most of which are captured by the target firm shareholders.

Table C-5. Cumulative average abnormal returns of bidding and target firms by takeover characteristics.

This table reports the average values of the CARs for bidding and target firms for 5 different event windows. T=0 stands for the day of the bid announcement. Abnormal returns are computed as the difference between the realized returns and the returns from the benchmark (the market model). The daily benchmark returns are based on the MSCI-Europe index and the parameters are estimated over a period of 240 days starting 300 days prior to the acquisition announcement. A non-parametric Corrado test (Corrado, 1989) are used to assess the significance of the CAARs. Indicators a/b/c correspond to the statistical significance at the 1%/5%/10% level, respectively. The CAARs are classified by different characteristics of the takeovers bid: geographical scope, type of acquisition, form of and attitude towards the bid, bid completion status, legal status of the target firm, industry scope, means of payment, and the sub-periods of the 5th takeover wave.

	Pre-event period [-40, -1]		Event day [T=0]		Event period [-1, +1]		Entire period (short) [-5, +5]		Entire period (long) [-60, +60]		Nr. Obs
	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	
WHOLE SAMPLE:											
▪ *BIDDER*	0.39	(0.76)	0.53	(4.90^a)	0.72	(4.28^a)	0.79	(3.19^a)	-2.83	(-2.48^b)	*2109*
▪ *TARGET*	11.49	(4.54^a)	9.13	(15.41^a)	12.47	(16.94^a)	15.83	(12.36^a)	26.70	(6.67^a)	*760*
GEOGRAPHICAL SCOPE:											
▪ *BIDDER*											
Domestic bid	0.33	(0.51)	0.59	(4.36^a)	0.83	(3.95^a)	0.76	(2.56^b)	-2.49	(-1.80^c)	*1456*
Cross-border bid	0.53	(0.62)	0.39	(2.25^b)	0.47	(1.72^c)	0.84	(1.90^b)	-3.63	(-1.77^c)	*653*
Diff. Domestic bid – Cross-border bid	-0.20	(-6.29^a)	0.20	(5.04^a)	0.36	(5.17^a)	-0.07	(-1.13)	1.14	(23.40^a)	
▪ *TARGET*											
Domestic bid	11.13	(10.53^a)	9.65	(13.10^a)	12.55	(15.24^a)	15.61	(16.15^a)	26.84	(12.04^a)	*564*
Cross-border bid	10.58	(10.25^a)	7.74	(6.13^a)	11.52	(7.42^a)	12.17	(2.60^a)	24.99	(10.22^a)	*196*
Diff. Domestic bid – Cross-border bid	0.55	(3.10^a)	1.91	(8.83^a)	1.02	(2.65^a)	3.44	(8.54^a)	1.85	(6.53^a)	
TYPE OF ACQUISITION:											
▪ *BIDDER*											
Merger or Acquisition of 100%	1.32	(1.88^c)	0.61	(3.94^a)	0.92	(3.77^a)	1.04	(2.98^a)	-1.32	(-0.88)	*1239*
Acquisition of Majority Control (< 100%)	-0.94	(-1.27)	0.41	(2.94^a)	0.42	(2.03^b)	0.42	(1.28)	-5.15	(-2.91^a)	*869*
Diff. M&A of 100% – M&A of Majority	2.26	(34.39^a)	0.20	(6.59^a)	0.50	(13.50^a)	0.62	(13.83^a)	3.83	(38.69^a)	
▪ *TARGET*											
Merger or Acquisition of 100%	13.09	(12.13^a)	11.55	(15.09^a)	15.61	(18.13^a)	19.46	(19.23^a)	31.26	(15.17^a)	*563*
Acquisition of Majority Control (< 100%)	6.92	(3.96^a)	2.17	(2.97^a)	3.46	(3.86^a)	5.44	(4.05^a)	13.58	(3.38^a)	*196*
Diff. M&A of 100% – M&A of Majority	6.17	(28.94^a)	9.38	(58.42^a)	12.16	(70.23^a)	14.02	(71.09^a)	17.68	(57.20^a)	

	Pre-event period [-40, -1]		Event day [T=0]		Event period [-1, +1]		Entire period (short) [-5, +5]		Entire period (long) [-60, +60]		Nr. Obs
	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	
FORM OF AND ATTITUDE TOWARDS THE BID:											
▪ *BIDDER*											
Opposed (by target's board) bid	1.63	(2.97[a])	-0.39	(-0.95)	-0.83	(-1.45)	-0.18	(-0.21)	-1.61	(2.29[b])	120
Tender offer (unopposed by target's board)	2.87	(2.55[b])	-0.37	(-1.48)	-0.45	(-1.14)	-0.29	(-0.52)	0.02	(0.01)	329
Friendly M&A	-0.37	(-0.61)	0.78	(6.27[a])	1.06	(5.50[a])	1.07	(3.74[a])	-4.35	(-3.21[a])	1,659
Diff. Tender Offer – Opposed bid	1.24	(4.44[a])	0.02	(0.13)	0.38	(2.04[b])	-0.11	(-0.51)	-9.19	(-19.78[a])	
Diff. Friendly M&A – Opposed bid	-2.00	(-35.35[a])	1.17	(16.82[a])	1.89	(21.74[a])	1.25	(11.91[a])	-13.57	(-61.77[a])	
▪ *TARGET*											
Opposed (by target's board) bid	14.86	(6.96[a])	15.47	(7.48[a])	17.62	(9.15[a])	22.36	(10.13[a])	43.85	(13.11[a])	120
Tender offer (unopposed by target's board)	13.97	(10.59[a])	12.07	(12.79[a])	16.12	(15.27[a])	20.19	(16.75[a])	32.24	(14.66[a])	380
Friendly M&A	6.20	(3.95[a])	2.75	(4.28[a])	4.59	(5.43[a])	6.25	(4.96[a])	10.22	(2.58[a])	259
Diff. Tender Offer – Opposed bid	-0.89	(-2.74[a])	-3.40	(-6.54[a])	-1.51	(-5.02[a])	-2.17	(-6.75[a])	-11.61	(-28.01[a])	
Diff. Friendly M&A – Opposed bid	-8.66	(-21.95[a])	-12.72	(-31.10[a])	-13.03	(-39.04[a])	-16.11	(-42.69[a])	-33.63	(-59.38[a])	
BID COMPLETION STATUS:											
▪ *BIDDER*											
Completed bid	0.14	(0.25)	0.54	(4.62[a])	0.73	(4.08[a])	0.87	(3.22[a])	-2.79	(-2.13[b])	1705
Withdrawn bid	1.08	(3.53[a])	-0.43	(-1.31)	-0.56	(-1.01)	-0.37	(-0.42)	-3.69	(-2.28[b])	162
Pending bid	-1.05	(-0.65)	1.14	(2.77[a])	1.56	(2.37[b])	1.03	(1.22)	-6.38	(-1.98[b])	241
Diff. Completed bid – Withdrawn bid	-0.94	(-8.16[a])	0.97	(15.26[a])	1.29	(16.05[a])	1.24	(12.39[a])	-3.88	(-17.93[a])	
Diff. Completed bid – Pending bid	1.20	(10.97[a])	-0.60	(-11.51[a])	-0.84	(-12.75[a])	-0.17	(-2.15[b])	3.59	(22.60[a])	
▪ *TARGET*											
Completed bid	12.27	(11.57[a])	9.20	(12.83[a])	12.29	(15.39[a])	15.86	(16.12[a])	27.85	(13.42[a])	568
Withdrawn bid	13.87	(6.49[a])	7.95	(5.46[a])	12.82	(6.31[a])	15.38	(6.98[a])	34.31	(7.29[a])	135
Pending bid	10.60	(3.87[a])	7.36	(3.03[a])	11.38	(3.99[a])	14.56	(3.81[a])	10.68	(4.86[a])	56
Diff. Completed bid – Withdrawn bid	-1.60	(-8.97[a])	1.25	(5.33[a])	-0.53	(-2.02[b])	0.48	(1.72[c])	-5.96	(-14.66[a])	
Diff. Completed bid – Pending bid	1.66	(2.20[b])	1.84	(2.19[b])	0.91	(1.02)	1.30	(1.28)	18.17	(11.26[a])	
LEGAL STATUS OF THE TARGET FIRM:											
▪ *BIDDER*											
Private target	-0.05	(-0.70)	0.77	(6.15[a])	1.08	(5.42[a])	1.06	(3.53[a])	-2.86	(-3.12[a])	1532
Listed target	0.60	(3.37[a])	-0.12	(-0.56)	-0.25	(-0.83)	0.06	(0.15)	-1.35	(-0.78)	576
Diff. Private target – Listed target	-0.65	(-13.41[a])	0.89	(26.48[a])	1.34	(32.22[a])	1.00	(20.07[a])	-1.51	(-10.56[a])	

	Pre-event period [-40, -1]		Event day [T=0]		Event period [-1, +1]		Entire period (short) [-5, +5]		Entire period (long) [-60, +60]		Nr. Obs
	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	
INDUSTRY SCOPE:											
▪ *BIDDER*											
Industry Focus (same 2-digit SIC code)	1.43	(2.12[b])	0.63	(4.31[a])	0.85	(3.80[a])	0.98	(3.06[a])	-1.66	(-1.08)	1334
Diversification (different 2-digit SIC code)	-1.41	(-1.85[c])	0.36	(2.35[b])	0.49	(1.99[b])	0.45	(1.19)	-5.04	(-3.00[a])	774
Diff. Diversification – Focus	-2.84	(-42.61[a])	-0.27	(-9.01[a])	-0.36	(-9.56[a])	-0.53	(-11.43[a])	-3.39	(-33.96[a])	
▪ *TARGET*											
Industry Focus (same 2-digit SIC code)	10.41	(9.18[a])	8.39	(11.56[a])	11.83	(13.76[a])	15.16	(14.56[a])	24.34	(10.34[a])	525
Diversification (different 2-digit SIC code)	13.92	(8.86[a])	10.78	(9.33[a])	13.91	(11.30[a])	17.36	(11.58[a])	31.98	(10.84[a])	234
Diff. Diversification – Focus	3.50	(15.82[a])	2.39	(14.29[a])	2.07	(11.68[a])	2.21	(11.29[a])	7.63	(26.85[a])	
MEANS OF PAYMENT:											
▪ *BIDDER*											
All-Cash bid	0.72	(0.90)	0.55	(3.55[a])	0.80	(3.47[a])	1.03	(2.74[a])	-0.90	(-0.52)	754
All-Equity bid	2.66	(1.68[c])	0.04	(0.09)	0.12	(0.19)	0.66	(0.75)	-2.16	(-0.61)	285
Mixed (Cash-and-Equity) bid	0.01	(0.01)	0.87	(3.33[a])	1.17	(2.73[a])	1.03	(1.71[c])	-2.82	(-0.86)	412
Undisclosed terms	-0.75	(-0.90)	0.51	(2.84[a])	0.60	(2.25[b])	0.41	(1.04)	-5.57	(-3.22[a])	657
Diff. All-Cash bid – All-Equity bid	-1.94	(-12.90[a])	0.51	(29.70[a])	0.67	(24.93[a])	0.38	(9.71[a])	1.26	(7.64[a])	
Diff. All-Cash bid – Mixed bid	0.70	(5.57[a])	-0.32	(-5.84[a])	-0.38	(-5.40[a])	0.00	(0.06)	1.92	(9.99[a])	
Diff. All-Cash bid – Undisclosed bid	1.46	(15.70[a])	0.03	(0.77)	0.19	(3.71[a])	0.63	(9.80[a])	4.67	(34.24[a])	
Diff. All-Equity bid – Undisclosed bid	3.40	(21.27[a])	-0.48	(-6.10[a])	-0.48	(-4.94[a])	0.25	(2.18[b])	3.41	(14.47[a])	
▪ *TARGET*											
All-Cash bid	13.92	(10.56[a])	11.55	(12.09[a])	15.67	(15.03[a])	20.17	(15.74[a])	32.78	(13.23[a])	405
All-Equity bid	7.39	(4.45[a])	7.29	(5.92[a])	9.22	(6.73[a])	11.10	(7.29[a])	18.16	(5.00[a])	185
Mixed (Cash-and-Equity) bid	13.42	(5.28[a])	10.06	(7.43[a])	14.29	(8.80[a])	17.48	(9.89[a])	35.54	(8.64[a])	92
Undisclosed terms	8.34	(2.43[b])	0.48	(0.96)	1.31	(1.19)	2.48	(1.27)	4.66	(0.61)	77
Diff. All-Cash bid – All-Equity bid	6.03	(23.73[a])	3.77	(17.37[a])	6.45	(28.01[a])	9.07	(36.36[a])	14.62	(40.11[a])	
Diff. All-Cash bid – Mixed bid	-0.50	(-1.35)	-0.49	(-1.65[c])	1.37	(4.38[a])	2.69	(7.92[a])	-2.76	(-5.62[a])	
Diff. All-Cash bid – Undisclosed bid	5.07	(11.98[a])	10.57	(38.98[a])	14.36	(45.72[a])	17.69	(47.60[a])	28.12	(45.86[a])	
Diff. All-Equity bid – Undisclosed bid	-0.95	(-1.56)	6.80	(17.58[a])	7.91	(17.68[a])	8.62	(16.66[a])	13.50	(14.89[a])	

	Pre-event period [-40, -1]		Event day [T=0]		Event period [-1, +1]		Entire period (short) [-5, +5]		Entire period (long) [-60, +60]		Nr. Obs
	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	CAARs (%)	(t-stat)	
SUB-PERIODS OF THE 5th TAKEOVER WAVE:											
▪ *BIDDER*											
1993-1996	-0.13	(-0.23)	0.32	(2.40[b])	0.46	(2.29[b])	0.65	(2.10[b])	0.52	(2.51[b])	761
1997-1999	0.68	(2.75[a])	0.79	(4.60[a])	1.25	(4.44[a])	1.26	(3.01[a])	-1.30	(-1.58)	792
2000-2001	0.67	(1.55)	0.45	(1.69[c])	0.31	(0.76)	0.30	(0.52)	-9.87	(-3.79[a])	555
Diff. 1993/96 – 1997/99	-0.81	(-9.7[a])	-0.47	(-12.48[a])	-0.79	(-16.80[a])	-0.61	(-10.51[a])	1.82	(14.82[a])	
Diff. 1993/96 – 2000/01	-0.80	(-7.81[a])	-0.13	(-2.59[a])	0.15	(2.42[b])	0.34	(4.74[a])	10.39	(71.16[a])	
Diff. 1997/99 – 2000/01	0.01	(0.07)	0.34	(6.75[a])	0.94	(14.82[a])	0.95	(12.51[a])	8.57	(50.97[a])	
▪ *TARGET*											
1993-1996	7.87	(4.94[a])	7.57	(6.14[a])	10.26	(7.80[a])	13.07	(8.60[a])	25.14	(7.13[a])	217
1997-1999	13.17	(9.49[a])	10.26	(11.39[a])	14.40	(13.30[a])	18.06	(14.33[a])	31.08	(12.86[a])	334
2000-2001	12.59	(6.67[a])	8.92	(7.83[a])	11.68	(8.98[a])	15.15	(8.61[a])	21.29	(5.06[a])	208
Diff. 1993/96 – 1997/99	-5.30	(-20.39[a])	-2.69	(-12.27[a])	-4.14	(-17.78[a])	-4.98	(-19.87[a])	-5.94	(-16.29[a])	
Diff. 1993/96 – 2000/01	-4.73	(-14.07[a])	-1.35	(-4.85[a])	-1.41	(-4.85[a])	-2.08	(-6.37[a])	3.85	(7.69[a])	
Diff. 1997/99 – 2000/01	0.58	(2.09[b])	1.34	(6.16[a])	2.73	(11.55[a])	2.91	(10.99[a])	9.79	(25.16[a])	

4.2 Market reaction to takeover announcements by deal characteristics

4.2.1. Geographical scope of transaction

We have mentioned that 70% of the intra-European M&As are domestic deals. Table C-5 shows that bidding firms engaging in cross-border bids experience lower announcement effects than do those undertaking domestic acquisitions (0.4% versus 0.6%, respectively), and the difference is statistically significant. Subsequent to the event day, the negative price correction for bidding firms is larger in cross-border bids than in domestic ones (-3.6% versus –2.5%).

Investors of target companies also favour more domestic acquisitions. The announcement effect of domestic and cross-border targets amounts to 10% and 8%, respectively (Table C-5). This difference is statistically significant. When we add the price run-up (40 trading days prior to the event), the difference increases to nearly 3% and remains statistically significant. Outperformance of domestic acquisitions relative to their cross-border peers (both in terms of the bidder' and target's CAARs) suggests that market anticipates difficulties in managing the post-merger integration process between foreign firms and hence discount the expected takeover synergies.

4.2.2. Type of acquisition

The acquisitions of partial control have received little attention in the existing literature. This is because they are virtually non-existent in the US and UK. However, we find that this type of takeovers prevail in Continental Europe. Table C-5 compares the announcement effect of partial acquisitions to that of full acquisitions. We find that bidding firm shareholders do not favour majority (or partial) control acquisitions (in contrast to the acquisition of full control). Table C-5 documents that although the announcement effect of a majority acquisition is significantly positive (0.4%), it is somewhat lower than the announcement effect of a full takeover bid (0.6%). Also, an acquisition of majority interest is associated with significant negative abnormal returns both before and after the transaction announcement, whereas a full acquisition is preceded by a significant increase in the equity value of the bidding firm.

Target shareholders also dislike acquisitions of partial control. At the announcement day, the share price of a target subject to a full acquisition rises by 12%, which is more than five times larger than the abnormal return of a target subject to an acquisition of majority control (see Table C-5). Investors who purchase target shares three months prior to a full takeover bid and sell the shares three months after the announcement earn a CAAR of 31%. In contrast, only 14% is acquired over the same period when the bid is made in order to obtain majority control only. The lower returns associated with bids for majority control may reflect concerns that a control transfer may lead to expropriation of the remaining minority shareholders.

4.2.3. Form of and attitude towards the bid

When we partition all bids into three subsamples based on the attitude and form of the bid: opposed (or hostile) bids, unopposed tender offers and friendly negotiated deals, we observe that bidder's shareholders clearly react differently to the announcements of those deals. On the event day, bidder share prices are subject to a negative price corrections in opposed bids and unopposed tender offers. The announcement of friendly M&As is greeted favorably by the market, as the abnormal returns are significantly positive (0.8%). However, friendly M&As are followed by remarkable share price decline over 3 months subsequent to the bid. It seems that the market reactions at the announcement are overoptimistic and that the bidders' shareholders have second thoughts about the profitability of these transactions.

Expectedly, takeover bids opposed by the target's board generate the highest abnormal returns (15%) to the target shareholders on the announcement day. The announcement returns induced by opposed takeover bids are significantly higher than those induced by unopposed tender offers (12%) and friendly M&As (3%). Table C-5 also unveils that there are large differences in the share price run-ups between friendly and hostile takeover bids. A hostile acquisition generates a CAAR of more than 30% over a 2-month period preceding and including the announcement day. In contrast, the target share prices significantly underperform in friendly M&As relative to opposed bids and unopposed tender offers both before and after the announcement. Over the holding period of 6 months centred around the event day, friendly M&As generate a CAAR of merely 10%, compared with 32% in tender offers and a considerable 44% in hostile bids.

4.2.4. Bid completion status

We also address the question as to whether the markets are able to predict the ultimate success or failure of the M&A negotiations. Table C-5 reports that the announcement effect for unsuccessful bidders is negative (-0.6%), but not statistically significant from zero. The total wealth effects (over a 6-month time span) of completed, pending, and withdrawn takeovers range between –6% and –3%, with most losses occurring to bidding firms facing difficulties to complete the takeover negotiations (pending deals) or postponing the completion of the bid.

The event-day effect for target firms is significantly larger (by 1% to 2%) for successful bids than for failures and pending deals. However, over the 2-month window prior to and including the event day, there is no difference in the CAARs between failed and successful bids (21.8% versus 21.5%). For the same period, pending acquisitions underperform successful and withdrawn bids by 3 to 5%.

4.2.5. Legal status of the target firm

Table C-5 shows that the announcement of a bid for a private firm induces significantly positive abnormal returns of 0.8% to the bidder's shareholders, whereas the announcement of a bid for a public firm results in an (insignificantly) negative return of –0.1%. The evidence is similar to

that of Moeller et al. (2004) and Faccio et al. (2004). However, the post-announcement returns over longer time windows decline to almost -3% when the target firm is private and to -1.3% when it is publicly listed (both are significant at the 1% level). This evidence suggests that market revise downward potential takeover synergies once more information about the true value and growth potential of the target firm is revealed.[63]

4.2.6. Industry scope

Table C-5 also compares the announcement period bidder firm CAARs in diversifying takeovers with those in industry-related (or focus-oriented) deals. Consistent with the conjecture for bidding companies that diversification destroys value on average (see table C-1), we find that bidding firms have significantly higher short-run wealth effects around the announcements of business expansions within their core industry compared to the returns induced by announcements of diversifying acquisitions (0.63% versus 0.36%). Also, it appears that the market anticipates the focus strategy of the bidder, because there is a statistically significant run-up in the bidder's share price over the two-month period prior to the event day. While the share price increases by 1.4% preceding an intra-industry bid announcement, it declines by the same percentage preceding the announcement of a diversifying takeover.

When CAARs for target firms are considered, regardless of the length of the window, diversifying takeovers outperform deals with a focus strategy. Over the period including the announcement day and the price run-up, target shareholders in diversifying takeovers enjoy a CAAR of about 24% whereas those in takeovers with a focus strategy earn a CAAR of about 19%. This confirms that bidders may overpay for unrelated target firms and engage in more aggressive bidding strategies in diversifying takeovers.

4.2.7. Means of payment

Asymmetric information between the bidder's management and outside investors may influence the choice of the means of payment and the consequent market reaction. A negative price correction is expected for all-equity bids and a positive one for all-cash bids (table C-1). Table C-5 confirms that bidders' shareholders perceive offers involving cash payments more favourably (0.6% for all-cash and 0.9% for mixed bids) than all-equity offers (for which the abnormal returns are insignificantly different from zero). Furthermore, in the period following the bid announcement, the bidder share prices generally decline, but decline substantially more in bids involving equity payments. The CAARs over a 6-month period in all-cash bids are not significantly different from

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[63] Due to the low disclosure requirements for privately owned companies, reliable information is not available. This stands in sharp contrast to the public firms, which are constantly scrutinized by different regulatory bodies, media, and the public.

zero (at –0.9%), whereas those in all-equity bids and mixed offers are significantly negative (-2.2% and –2.8%, respectively).

Table C-5 shows that the target's share price reaction is also sensitive to the means of payment in a takeover bid. Regardless of the event window, the CAARs of cash offers bids are significantly higher than those of all-equity offers (at the 1% significance level). Acquisitions where the payment method is undisclosed do not lead to a significant price change at the announcement. The lack of information on such bids is even penalized by the market as the share price decreases by 4% over three-month period subsequent to the event day.

4.2.8. *The sub-periods of the 5th takeover wave*

Table C-5 shows significant differences between the price reactions to bids for the three sub-periods of the takeover wave. The sum of the price run-ups and the announcement effects for takeover bids at the beginning, peak and decline of the wave are 0.19%, 1.47% and 1.12%, respectively. However, when we calculate CAARs over somewhat longer time windows (e.g. 6 months), it seems that bidder shareholders realise that the bids may have been excessive at the peak and at the decline over the takeover wave: the CAARs amount to 0.52% in 1993-96, -1.30% in 1997-99 and –9.87% in 2000-01.[64] It should be noted that the substantial decline subsequent to the M&A peak is already corrected for the strong downward equity market movement. From the middle of 2000, the M&A climate turned bleak and the stock market decline made bidder shareholders very pessimistic about future synergistic gains. Thus, our evidence shows that from the perspective of bidding firms, sweet M&As turned sour due to such reasons as managerial hubris, self-interest, and herding (see table C-1).

Target shareholders gain the most at the peak of the takeover wave. Table C-5 shows that, at the announcement day, target firms gain an average premium of 8% prior to 1997, 10% in 1997-99, and 9% in 2000-01. The differences are statistically significant at the 1% level. The second stage of the takeover wave also stands out in terms of the price run-up for target firms: it amounts to 13% (up from 8% observed in 1993-1996). Over longer time windows, for instance over a 6-month window symmetrically centred around the event day, the post-1999 bids yield lower CAARs (21%) than do those in 1997-1999 (31%) and those before 1997 (25%).

4.3 Market reaction to takeover announcements by the legal origin of bidder and target

Rossi and Volpin (2004) show that the legal environment and takeover regulation are important determinants of the takeover gains. They report that takeover premiums are higher in countries with higher shareholder protection and in countries where the mandatory bid requirement

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[64] This result is unlikely to be driven by outliers, as the median value of CARs over window [-60, +60] for takeovers in 2000-2001 equals -5.4% (Q25= -24% and Q75= 21%).

is enforced by law. To control for the impact of the legal environment on takeover premiums, we classify all acquisitions into five groups according to the legal origin of the bidder and target countries, following La Porta et al. (1998). Countries from the former communist block are classified according to their (staged) accession to the European Union, as this event has had an important impact on their corporate legislation.

4.3.1. Domestic acquisitions

Table C-6 shows that bidder share price reactions to domestic bids vary considerably by legal origin of the firm. Bidding firms of common law and German and Scandinavian civil law countries earn significantly positive wealth gains at the announcement. Conversely, the wealth changes incurred by bidders from French civil law countries and the new and prospective EU entrants are insignificantly different from zero. Over a 6-month time window symmetrically around the event date, the share price movements are either negative (for firms from German civil law countries and the new and prospective EU entrants) or statistically insignificant (for firms from UK common law and French and Scandinavian civil law countries).

Table C-6 further documents that the legal origin of the target country also has a clear impact on target abnormal returns in domestic deals. Target firms from English common law countries experience very large wealth effects over all event windows. Importantly, target firms from Scandinavian civil law countries where the corporate governance legislation and the institutional financial environment are close to those in the UK (LaPorta et al., 1998), also exhibit strongly positive CAARs (of 21% over the event day and the price run-up period). While target firms from the countries that either joined the EU in 2004 or are expected to join in 2007 have the lowest announcement effect (–0.5%), those from French and German civil law countries also earn particularly low CAARs of 1.7% and 2.3%, respectively.

4.3.2. Cross-border acquisitions

Turning to cross-border acquisitions in table C-6, we show that bidding firms of German, Scandinavian, and French legal origins earn higher announcement returns than do firms of English legal origin: the announcement effects are 0.5% (average across the three legal origins) and 0.2% respectively. The difference is statistically significant at the 1% level. Companies incorporated in countries of Scandinavian legal origin are expected to benefit from the announcement of cross-border takeovers most (0.8%).

Table C-6. Cumulative abnormal returns for bidding and target firms by legal origin

Panel A reports the average values of the CARs for bidding and target firms in domestic acquisitions by legal origin. Panel B reports the CAARs for bidding and target firms in cross-border acquisitions classified by the legal origin of the bidder and target respectively. Countries are grouped according to their legal origin and according to the EU enlargement process: *English legal origin* (Republic of Ireland and the UK), *German legal origin* (Austria, Germany, Switzerland), *French legal origin* (Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain), *Scandinavian legal origin* (Denmark, Iceland, Finland, Norway, Sweden,), *EU enlargement* (Bulgaria, Croatia, Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia). T=0 stands for the day of the bid announcement. Abnormal returns are computed as the difference between the realized and market model benchmark returns. For each firm we calculate daily benchmark returns using MSCI-Europe index returns and the market model parameters are estimated over 240 days starting 300 days prior to the acquisition announcement. A non-parametric test (Corrado, 1989) is used to assess the significance of the CAARs. a/b/c stand for statistical significance at 1%/5%/10%, respectively.

	Pre-event period [-40, -1]		Event day [T=0]		Event period [-1, +1]		Entire period (short) [-5, +5]		Entire period (long) [-60, +60]		Nr. Obs
	CAARs (%)	*(t-stat)*	CAARs (%)	*(t-stat)*	CAARs (%)	*(t-stat)*	CAARs (%)	*(t-stat)*	CAARs (%)	*(t-stat)*	
DOMESTIC BIDS:											
▪ *BIDDER*											
English legal origin	0.67	*(0.73)*	0.41	*(2.23^b)*	0.50	*(1.69^c)*	0.49	*(1.17)*	-0.72	*(-0.35)*	*744*
German legal origin	-3.68	*(-2.64^a)*	0.85	*(2.20^b)*	0.59	*(1.44)*	0.36	*(0.49)*	-10.34	*(-2.71^a)*	*184*
Scandinavian legal origin	3.26	*(1.96^b)*	1.72	*(3.34^a)*	2.29	*(3.17^a)*	2.05	*(2.39^b)*	0.84	*(0.25)*	*206*
French legal origin	1.40	*(0.97)*	0.12	*(0.57)*	0.92	*(2.36^b)*	1.30	*(2.10^b)*	-1.20	*(-0.43)*	*278*
EU enlargement	-9.31	*(-2.33^b)*	0.32	*(0.61)*	-0.09	*(-0.06)*	-2.40	*(-1.04)*	-23.38	*(-2.59^b)*	*44*
▪ *TARGET*											
English legal origin	14.21	*(10.04^a)*	13.66	*(11.97^a)*	17.64	*(14.00^a)*	21.87	*(15.64^a)*	36.79	*(15.09^a)*	*306*
German legal origin	6.57	*(2.11^b)*	2.30	*(2.68^a)*	4.42	*(3.17^a)*	5.71	*(2.92^a)*	6.40	*(1.38)*	*48*
Scandinavian legal origin	9.72	*(3.93^a)*	11.10	*(5.79^a)*	14.78	*(7.12^a)*	15.56	*(6.60^a)*	25.65	*(5.40^a)*	*76*
French legal origin	5.79	*(2.25^b)*	1.71	*(3.13^a)*	2.83	*(3.18^a)*	5.39	*(3.20^a)*	12.66	*(1.76^c)*	*118*
EU enlargement	11.93	*(1.65)*	-0.48	*(-0.45)*	0.54	*(0.18)*	1.28	*(0.41)*	8.15	*(0.55)*	*16*
CROSS-BORDER BIDS:											
▪ *BIDDER*											
English legal origin	-0.20	*(0.14)*	0.18	*(0.60)*	0.36	*(0.62)*	1.46	*(1.77^c)*	-1.17	*(-0.56)*	*174*
German legal origin	2.28	*(1.22)*	0.43	*(1.12)*	0.66	*(1.08)*	1.29	*(1.32)*	-1.35	*(-0.32)*	*137*
Scandinavian legal origin	-0.68	*(-0.43)*	0.78	*(1.66^c)*	0.67	*(1.15)*	0.59	*(0.78)*	-5.11	*(-1.46)*	*149*
French legal origin	2.11	*(1.47)*	0.32	*(1.18)*	0.37	*(0.84)*	0.78	*(1.10)*	-1.00	*(-0.33)*	*182*
▪ *TARGET*											
English legal origin	23.29	*(5.29^a)*	13.80	*(6.04^a)*	19.42	*(7.52^a)*	26.88	*(8.93^a)*	48.13	*(7.86^a)*	*57*
German legal origin	9.37	*(2.88^a)*	3.48	*(2.34^b)*	7.06	*(3.46^a)*	5.49	*(1.15)*	11.25	*(2.00)*	*33*
Scandinavian legal origin	7.24	*(1.80^c)*	12.38	*(3.05^a)*	17.32	*(3.95^a)*	19.28	*(4.02^a)*	22.71	*(3.03^a)*	*38*
French legal origin	10.13	*(3.62^a)*	4.26	*(2.96^a)*	7.12	*(3.80^a)*	13.40	*(4.58^a)*	26.72	*(4.38^a)*	*52*
EU enlargement	0.52	*(0.08)*	0.28	*(0.20)*	1.52	*(0.53)*	4.79	*(1.13)*	-16.19	*(-1.25)*	*15*

The premiums offered in cross-border takeovers are significantly higher for the target firms from English common law countries than for those from the civil law countries: 13.8% versus 5.9% at the announcement (averaged across other countries). Adding the price run-up to the announcement effect, the numbers increase to even 37% and 14%, respectively. Importantly, the corresponding effect for targets from the new and prospective EU entrants is insignificantly different from zero. Given that the corporate governance regime of the bidding firm is imposed on the target firm (Bris and Cabolis, 2004; and Rossi and Volpin, 2004), it is also important to classify the target firm wealth effects by the legal origin of the bidder country.[65] We find that the differences in target share price reactions are now less outspoken. Still, the announcement period abnormal returns remain the highest when the legal origin of the bidder country is English common law.[66]

5. Determinants of the market reaction to takeover announcements (Multivariate analysis)

The results of the univariate analysis suggest that the market reaction to takeover announcements varies across takeover bids with different characteristics. We now turn to exploring which of the effects documented in the previous section dominates in a multivariate analysis framework. In section 2 we conjecture that the characteristics of the takeover bid convey a signal to the market about the quality of the bidding and target firms and of the potential value creation in the takeover. Therefore, the release of information about the takeover induces investors to update their expectations about the bidding and target firms' prospects. Thus, we expect the takeover characteristics to explain a substantial part of variation in the bidder and target's share price changes in the period around the takeover announcement. As additional proxies for the quality of the bidders and targets and potential takeover synergies we also consider the financial and operating performance of these firms and their corporate control structures.

Information about takeovers is incorporated into the share prices in three steps. First, some investors or insiders trade on private information or rumours. Second, the major flow of reliable information is released to the market at the first public announcement of the takeover deal. At the announcement day, investors learn about the objective of the bidding firm, the target's attitude towards the bid, and the initial terms of the deal. Third, additional information about the takeover is obtained in the post-announcement period. This typically regards the failure or a success of the bid, a better estimate of the synergy values, and the ultimate terms of the transaction. Since the information revealed at each step is likely to affect market expectations about the bidder and target's prospects, we model market reaction to takeover announcements consisting of three components: the pre-event,

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[65] According to international law, when a foreign firm acquires 100% of a domestic firm, the nationality of the latter changes. Hence, the target firm adopts the accounting standards, disclosure practices, and governance structures of the acquiring firm.

[66] The CAARs of the bidding and target firms by country of origin are available upon request.

announcement, and the after-event effects. In separate regressions, we investigate the factors that affect the CARs realized prior to the bid over the period [-60, -2] days, over the 3 days around the bid announcement, and subsequent to the bid over the period [+2, +60] days. Given that we expect to observe fundamental differences between M&As involving UK and CE firms (see section 2), we also run the regressions for these two types of deals separately.

5.1. Bidder's cumulative abnormal returns

The determinants of the market reaction to takeover announcements for bidding firms are reported in table C-7 and their economic effects are in table C-8. The analysis of bidder returns may be subject to a sample selection bias, as bidders may already have specific characteristics (independent of the takeover decision) that generate a specific level of returns. To control for this potential bias, we apply Heckman's procedure for sample-selection correction (see section 3.3.2).[67]

5.1.1   Bidder pre-announcement returns

The pre-announcement returns on the shares of a bidding firm over the period starting 3 months and ending 2 days before the event are positively influenced by the bidder's Tobin's Q (see model 1 in tables C-7 and C-8). An increase in the Q-ratio by one standard deviation leads to an incremental rise in the bidder's run-up premium of 1023 basis points (see table C-8). This suggests that investors value corporate takeovers more when the bidding firm has better growth opportunities. In contrast, investors are wary when a bidding firm with high cash flow reserves makes a takeover bid. In such cases, legitimate doubts arise about the true motives for the takeover: cash surpluses are likely to be used for managerial empire building (Jensen, 1986). Accordingly, a one standard deviation increase in the bidder's cash flows reduces the run-up effect by 1666 basis points.

Since hostile takeovers are often launched after unsuccessful private negotiations with the target management, these deals are likely to be anticipated by the market due to information leakages or insider trading. We confirm that this is the case: the pre-announcement CAARs in hostile takeovers are substantially higher than those in unopposed bids (the difference amounts to 320 basis points). The fact that takeovers are preceded by a substantial positive increase in the share price of bidding firms also suggests that these deals are expected to create value. However, the announcement effect itself triggers a negative reaction in bidder share prices (see Section 5.2.1). At this point, bidder shareholders may fear the emergence of a bidding war which may erode the potential synergistic value.

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[67] The fourth row from the bottom of table 7 indicates regressions for which censoring is found to be a significant problem and the correction for the sample selection bias is applied. The correction is needed for the pre-bid CARs in the sub-sample of CE bids.

While the above findings are valid for both UK and CE bidders, the decomposition of the sample based on the location of the bidding firms reveals some differences (see models 2 and 3). Diversifying takeover bids are associated with a decrease in the pre-announcement CARs for bidding firms. However, this result is largely driven by CE bidders. For these firms, the run-up premium in diversifying takeovers is 347 basis points lower than in industry-related deals. The pre-announcement change in the share price of CE bidding firms also incorporates the negative effect of a forthcoming takeover with undisclosed terms of transaction (-327 basis points). Also, CE investors favour acquisitions of targets with high collateral. An acquisition of a target with high collateral may increase the European bidder's capacity to issue new debt at favorable terms (Rajan and Zingales, 1998). A one standard deviation increase in the target firm's collateral leads to a 522 basis point increase in the run-up premium of Continental bidders.

For the UK sub-sample, the returns over the pre-announcement period are 366 basis points higher when bidders use equity as a means of payment. This signifies that bidders take advantage of a temporary overvaluation of their equity and use it as cheap currency for acquiring real assets.[68] As the takeover wave progresses, it seems that there are more information leakages prior to the public announcements of UK bids, or that takeovers in the UK are more predictable. M&As undertaken in the late 1990s are associated with significantly higher share price run-ups than those made in 1993-96.

The presence of a large shareholder in bidding firms also has a significant impact on the bidder abnormal returns. However, this impact is positive for UK firms and negative for CE firms. The presence of a blockholder with a control stake of at least 20% leads to a rise in the pre-announcement CARs of UK bidders by 351 basis points but to a reduction in the CARs of CE bidders by 237 basis points. This result confirms that the market views the roles of the major shareholders in UK and CE firms as being different. Investors regard the presence of a large blockholder in a UK company as a credible signal that the takeover decision is driven by motives of profit maximization, while minority shareholders of the CE bidders with a controlling shareholder fear expropriation.

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[68] If the managers of a bidding firm know that the firm's shares are worth more than their current market price, they will prefer to pay for the acquisition with cash. Conversely, if the bidder's management believes that the shares are overvalued, they prefer to offer equity. Also, Shleifer and Vishny (2003) and Rhodes-Kropf and Vishwanathan (2003) argue that overvalued bidders use equity to buy real assets of undervalued (or less overvalued) targets to take advantage of the mispricing premium over the longer term when the overvaluation may be corrected. In both cases, strong performance of the bidder's share price is an important determinant of the bidder's decision to use equity as a means of payment.

Table C-7. Anticipated wealth creation for bidders' shareholders.

This table reports the results of the OLS regression of the bidder CARs for three different event windows and for the sub-samples of UK and CE (CE) bidders. Variable definitions are given in Appendix C-I. 'Heckman correction' indicates that a Heckman (1976) sample selection is applied to correct for potential bias due to bidder's endogenous choice of whether to participate in M&As or not. Where sample selection bias was found insignificant, we report estimates for OLS regression without Heckman's correction. For each variable we list the coefficient and the heteroskedasticity-consistent p-value. We denote the characteristics of bidding and target firms by (B) and (T) respectively. a/b/c stand for statistical significance at 1%/5%/10%, respectively.

| | CAR [-60, -2] | | | | | | CAR [-1, +1] | | | | | | CAR [+2, +60] | | | | | |
| | All bidders (1) | | UK bidders (2) | | CE bidders (3) | | All bidders (4) | | UK bidders (5) | | CE bidders (6) | | All bidders (7) | | UK bidders (8) | | CE bidders (9) | |
	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val
Intercept	0.01	.515	0.05	.301	0.02	.520	0.00	.445	0.01	.656	-0.00	.619	0.01	.799	0.01	.613	-0.01	.821
Cross-border bid	0.00	.704	-0.02	.324	0.01	.472	-0.00	.229	-0.00	.720	-0.01	.122	0.01	.630	0.00	.916	0.01	.601
M&A of 100%	0.01	.764	-0.04	.112	0.03	.112	**0.01ᵃ**	.000	**0.02ᵇ**	.026	**0.01ᵇ**	.015	-0.01	.696	-0.01	.642	0.00	.838
Opposed bid	**0.03ᵃ**	.006	**0.04ᵇ**	.028	**0.03ᵃ**	.009	**-0.02ᵇ**	.033	**-0.03ᵇ**	.023	**-0.01ᵇ**	.036	0.00	.937	0.05	.229	-0.02	.627
Tender offer	0.02	.509	0.01	.730	0.00	.904	**-0.02ᵃ**	.009	**-0.03ᵃ**	.008	-0.01	.504	-0.01	.530	-0.00	.965	0.01	.870
Withdrawn bid	0.00	.848	-0.01	.743	0.01	.779	-0.01	.396	0.00	.926	-0.02	.126	-0.03	.234	**-0.09ᵃ**	0.04	0.00	.913
Pending bid	-0.03	.193	-0.03	.398	-0.02	.346	0.01	.291	0.02	.320	-0.00	.574	0.00	.814	0.01	.762	-0.00	.887
Private target	-0.01	.663	-0.01	.725	-0.01	.731	**0.01ᵇ**	.044	**0.02ᶜ**	.055	**0.01ᵇ**	.021	-0.02	.258	0.00	.962	-0.03	.140
Diversification	**-0.03ᵇ**	.034	-0.01	.453	**-0.03ᵇ**	.042	-0.00	.316	-0.00	.763	-0.01	.215	-0.00	.968	-0.01	.424	0.01	.466
All-equity payment	**0.03ᵇ**	.013	**0.04ᵇ**	.013	-0.01	.111	**-0.01ᶜ**	.090	**-0.02ᵇ**	.017	**-0.01ᶜ**	.057	-0.01	.441	-0.02	.465	0.00	.958
Undisclosed terms	-0.02	.200	0.00	.950	**-0.03ᶜ**	.090	**-0.01ᵇ**	.024	-0.01	.411	**-0.01ᶜ**	.078	0.00	.814	-0.02	.659	0.02	.216
1997-1999	0.02	.297	**0.02ᵇ**	.039	0.02	.552	**0.01ᵇ**	.013	0.01	.265	**0.02ᵃ**	.002	-0.01	.301	-0.03	.111	0.00	.947
2000-2001	0.04	.147	**0.02ᵇ**	.035	0.05	.220	-0.00	.438	**-0.02ᵇ**	.030	0.01	.286	**-0.11ᵃ**	.000	**-0.06ᵃ**	.003	**-0.13ᵃ**	.000
Toehold	0.04	.505	-0.08	.481	0.06	.302	0.02	.225	0.04	.181	0.01	.633	**0.12ᵇ**	.013	0.01	.919	**0.15ᵇ**	.014
Run-up							**0.07ᵇ**	.013	**0.06ᵇ**	.044	**0.09ᵇ**	.021	**0.06ᶜ**	.088	0.04	.105	**0.05ᶜ**	.076
Relative size	-0.04	.253	-0.09	.650	0.07	.402	-0.02	.395	-0.00	.962	**-0.04ᵇ**	.036	-0.04	.423	-0.05	.742	-0.02	.825
(Bidder) Q-ratio	**0.02ᵃ**	.000	**0.02ᵃ**	.000	0.02	.300	0.00	.123	0.00	.352	0.00	.654	**-0.02ᵃ**	.000	**-0.01ᵃ**	.000	**-0.02ᵃ**	.002
(Bidder) Leverage	-0.03	.804	0.02	.619	-0.00	.968	-0.03	.450	-0.07	.450	0.00	.942	0.21	.116	0.23	.284	0.20	.253
(Bidder) CFlow/TA	**-1.54ᵃ**	.000	**-1.46ᵃ**	.000	**-1.67ᵃ**	.006	-0.11	.238	**-0.34ᶜ**	.061	0.15	.493	0.53	.425	0.57	.247	0.38	.438
(Bidder) English	0.00	.748					**-0.01ᶜ**	.057					**0.02ᵇ**	.021				
(Bidder) Blockh>20%			**0.04ᶜ**	.059	**-0.02ᶜ**	.087			-0.04	.298	0.01	.449			-0.05	.585	0.02	.606
(Target) Collateral	-0.04	.723	-0.18	.276	**0.21ᵇ**	.037	0.03	.293	0.02	.605	**0.05**	.070	0.08	.259	0.07	.578	0.09	.323
(Target) CFlow/TA	0.14	.395	0.33	.205	-0.03	.848	-0.00	.958	-0.00	.965	-0.02	.186	-0.29	.370	**-0.26ᵇ**	.020	-0.30	.348
(Target) English	-0.00	.804					0.00	.945					-0.01	.802				
Heckman correction	No		No		Yes		No		No		No		No		No		No	
Nr. of observations	2109		624		958		2109		624		958		2109		624		958	
Adjusted-R²	0.14		0.17		0.13		0.06		0.05		0.04		0.13		0.08		0.16	
F-value	2.75	.004	4.02	.001	3.29	.003	4.67	.000	3.30	.002	3.18	.003	9.23	.000	6.55	.000	7.38	.000

Table C-8. Economic effects of the results reported in Table C-7: Predicted change in the wealth of the bidding firm's shareholders around M&A announcement

This table reports the economic effects of the results of the regressions of the bidder's CARs for three different event windows and for the sub-samples of UK and CE bidding firms. The variable definitions are given in Appendix C-I. The numbers in the table represent the incremental changes in CARs (%) associated with a particular takeover characteristic (binary variables) or with a one standard deviation change in the reference variable (level variables). The effects that are statistically significant in the regression analysis are denoted in bold. For each event window and each subsample of the bidding and target firms, the table also reports the average CARs.

	CAR [-60, -2]			CAR [-1, +1]				CAR [+2, +60]			
	Exp. sign	All bidders (1)	UK bidders (2)	CE bidders (3)	Exp. sign	All bidders (4)	UK bidders (5)	CE bidders (6)	Exp. sign	All bidders (7)	UK bidders (8)	CE bidders (9)
Reference: CAARs (%)		0.64	0.95	-0.06		0.72	0.50	0.94		-3.35	-2.15	-4.55

Incremental change in CARs (%) associated with a particular takeover characteristic (binary variable=1):

	Exp. sign	All bidders (1)	UK bidders (2)	CE bidders (3)	Exp. sign	All bidders (4)	UK bidders (5)	CE bidders (6)	Exp. sign	All bidders (7)	UK bidders (8)	CE bidders (9)
Cross-border bid		0.46	-2.47	1.14	+/-	-0.47	-0.23	-0.68		0.59	0.32	0.82
M&A of 100%		0.56	-4.28	2.98	+	**1.38**	**1.71**	**1.22**		-0.58	-1.04	0.33
Opposed bid		**3.20**	**3.86**	**2.78**	-	**-1.92**	**-3.22**	**-1.18**		0.23	4.99	-1.92
Tender offer		1.53	1.00	0.39	-	**-1.64**	**-2.69**	-0.61		-0.98	-0.13	0.63
Withdrawn bid		0.47	-1.41	1.21	-	-0.74	0.12	-1.60	-	-3.22	**-8.67**	0.32
Pending bid		-2.56	-2.80	-2.30	-	0.57	2.06	-0.36	-	0.39	1.16	-0.39
Private target		-0.82	-1.09	-0.90	+	**0.78**	**1.59**	**1.49**	-	-2.03	0.29	-3.40
Diversification		**-2.67**	-1.33	**-3.47**	-	-0.31	-0.14	-0.56		-0.09	-1.33	1.23
All-equity payment		**3.18**	**3.66**	-0.53	-	**-0.89**	**-1.79**	**-0.63**		-1.33	-1.65	0.15
Undisclosed terms		-2.09	0.27	**-3.27**	-	**-1.02**	-1.03	**-0.90**		0.35	-1.68	2.25
1997-1999		2.17	**1.75**	2.24	-	**0.97**	0.67	**1.56**		-1.33	-2.86	0.09
2000-2001		3.71	**2.11**	4.63	-	-0.33	**-1.52**	0.59	-	**-10.82**	**-6.20**	**-13.18**
(Bidder) English		0.14				**-1.12**				**2.40**		
(Bidder) Blockh>20%			**3.51**	**-2.37**			-3.94	1.18			-5.35	2.23
(Target) English		-0.02				0.04				-0.50		

Incremental change in CARs (%) associated with a one standard deviation change in a particular takeover variable:

	Exp. sign	All bidders (1)	UK bidders (2)	CE bidders (3)	Exp. sign	All bidders (4)	UK bidders (5)	CE bidders (6)	Exp. sign	All bidders (7)	UK bidders (8)	CE bidders (9)
Toehold		0.45	-0.68	0.82		0.25	0.34	0.14		**1.36**	0.09	**2.05**
Run-up						**1.93**	**1.82**	**2.56**		**3.66**	3.09	**4.39**
Relative size		-0.89	-1.73	1.89		0.47	-0.09	**-1.08**		-0.89	-0.96	-0.54
(Bidder) Q-ratio		**10.23**	**12.92**	**7.79**		1.22	1.63	0.88		**-10.23**	**-6.46**	**-7.79**
(Bidder) Leverage		-0.49	0.36	0.03		-0.45	-1.26	0.02		3.42	4.13	3.00
(Bidder) CFlow/TA		**-16.66**	**-20.10**	**-13.46**		-1.16	**-4.68**	1.21		5.73	7.85	3.06
(Target) Collateral		-1.04	-4.88	**5.22**		-0.54	0.54	**1.24**		2.07	1.90	2.24
(Target) CFlow/TA		1.67	3.59	-0.33		0.00	-0.06	-0.22		-3.47	**-2.83**	-3.30

5.1.2   The bidder's announcement effect

On the announcement day, when information about the takeover bid is made public, investors assess (or adjust their assessment of) the potential takeover synergies and re-consider their valuation of the bidding and target firms. Model 4 in table C-7 shows that the announcement of a hostile takeover or of a tender offer triggers a significant negative price correction for bidding firms. The correction amounts to reductions of 192 and 164 basis points in the announcement returns for hostile bids and tender offers, respectively (see table C-8). This result is due to shareholder concerns that their firm will offer too high a premium. An all-equity offer also forces investors to adjust the bidder's share price downward. Announcement CARs in all-equity deals are 89 basis points lower than the CARs in deals that involve cash payments. One dominant explanation is that an equity payment conveys the signal that the bidder's share price is overvalued, which in turn triggers an adverse revaluation effect.

A significant positive announcement effect on returns to the bidding firms is observed in takeover bids for private targets (78 basis points). The literature formulates several explanations for this phenomenon (see e.g. Faccio et al., 2005). First, illiquid (privately-held) shares are likely to be sold at a discount. Second, private negotiations with the controlling shareholder of an unlisted firm are likely to result in lower costs of transferring control compared to open market purchases from dispersed shareholders (Burkart, Gromb, and Panunzi, 1997). Third, an all-equity offer to a private firm may create an outside blockholder in the bidding firm and hence bring about more managerial discipline (Chang, 1998).

Acquisitions of full control (100% of the equity) are also associated with higher bidder announcement returns than are acquisitions of majority control; the difference amounts to 138 basis points. Takeover deals with undisclosed terms are an important concern for the investors of CE bidding firms: concealed information about the transaction value and the means of payment costs bidding firms 90 basis points in the announcement premium (see models 5 and 6). Investors are wary that the terms of the deal are not disclosed when it is aimed at expropriating their rights either by management or by the controlling shareholder.

A negative price correction for CE bidders also takes place when a relatively large target is approached. A one standard deviation increase in the relative size of the transaction reduces the bidder's announcement effect by 108 basis points. Two explanations are possible. First, this negative price correction expresses the information asymmetries between bidding and target firms. Uncertainty about the true market value of the target firm reflects the possibility that the bidder may incur substantial losses in case of a post-acquisition adverse revaluation of the target's assets. The magnitude of these potential revaluation losses depends on the relative size of the target firm. Second, as larger firms generally require a more complex management structure to operate effectively, the

post-acquisition integration may be a relatively more difficult process. Investors fear that their firm will bear additional costs associated with these difficulties and adjust the firm's value downward.

UK investors seem to dislike acquisitions by bidding firms holding excessive cash reserves (see model 5). A one standard deviation increase in the bidder's cash flow is associated with a reduction in the announcement CARs by 468 basis points. Investors fear that high free cash flow encourages management to undertake value-destroying acquisitions. In addition, when takeover activity was slowing down in 2000-2001, UK deals were associated with significantly lower announcement returns than similar bids in the earlier periods (the difference is 152 basis points). This may reflect that investors get wary when the investment climate deteriorates and the stock market declines. In such periods, the market (belatedly) starts realizing that there is a danger of overpaying due to managerial hubris and self-interest.

5.1.3   Bidder post-announcement returns

Bidding firm CARs realized over the three months subsequent to the event day exhibit a persistently declining trend. Our analysis reveals that M&As initiated in the late 1990s trigger significant negative returns subsequent to the event day. In these deals, the post-announcement bidder CARs are reduced by 1082 basis points (see model 7 in tables C-7 and C-8). The negative coefficient on the bidder's Q-ratio reflects the market's reassessment of 'glamour' firms. As suggested by Rau and Vermaelen (1998), glamour firms tend to overestimate their ability to create synergies in takeovers, and are more likely to overpay than are value firms. When these circumstances of the bid become clear, the market reassesses the quality of the bidder and adjusts the share price accordingly. A one standard deviation increase in the bidder's Q-ratio reduces the post-announcement returns by 1023 basis points.

There is evidence that the announcement and post-announcement valuation effects increase with the bidder's share price performance prior to the takeover bid.[69] The evidence is consistent with a behavioural finance point of view: the positive relation between run-up and mark-up premiums may result from the fact that investors tend to overestimate the potential gains in takeovers launched by outperforming bidders.

Withdrawn takeover bids seem to be disliked by the market. However, this effect occurs only with respect to UK bidders (see models 8 and 9). Failure to complete a takeover deal costs UK bidding firms 867 basis points of their post-announcement returns. CE investors revise their expectations about takeover gains upwards if the bidder has accumulated a toehold in the target firm prior to the bid. A one standard deviation increase in the toehold leads to an increase of 205 basis points in the post-

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[69] Although this relationship has significant predictive power for the bidder CARs, the economic significance is small. A 100-basis points increase in the bidder CARs prior to the bid leads to an increase in the announcement and post-announcement premiums of merely 7 and 6 basis points, respectively.

announcement CARs. Apart from the difference in the reaction to the announcement of a withdrawn bid and the effect of a toehold, the patterns of post-announcement share price changes in UK and CE bidders are very similar.

5.2 Target's Cumulative Abnormal Returns

Table C-9 exhibits the determinants of target firm share price changes around takeover announcements. The economic effect of the estimated parameters is reported in table C-10.

5.2.1 Target pre-announcement returns

Over the three months prior to hostile bid announcements, target shareholders can pocket significantly higher cumulative abnormal returns than they can prior to friendly M&As. The anticipation of a hostile takeover is associated with a 923 basis point increase in the target's pre-announcement returns (model 1 in tables C-9 and C-10). This confirms that hostile bids are more likely to be anticipated, or that some degree of insider trading or trading on rumours takes place. Also, firms that were targeted during the peak period of the fifth takeover wave (1997-99) experienced a very substantial pre-announcement share price increase compared to the companies targeted at the beginning (1993-1996) and at the end (2000-2001) of the wave (the difference is 832 basis points). It seems that paying too high a price for a target firm is more likely to occur when takeover activity is at its peak because the bids become more aggressive and are more likely to trigger opposition by the target firm. UK targets experience significantly higher share price run-ups than do other targets in our sample: the difference amounts to 1106 basis points.

Partitioning our sample into UK and CE targets, we find that the significant premiums paid for UK targets are mainly driven by cross-border acquisitions (see models 2 and 3). The anticipation of a cross-border acquisition leads to an additional run-up premium of 1327 basis points for UK targets. This stands in sharp contrast with the statistically insignificant reduction in the run-up of CE targets by 169 basis points. For CE targets, pre-announcement CARs increase with collateral: a one standard deviation increase in the collateral leads to an 845 basis point increase in returns. Diversification also triggers significant anticipations of wealth increases for CE targets. For those companies, an incremental premium of 595 basis points is realized. Investors expect bidders pursuing diversification strategies to bid more aggressively and hence pay higher takeover premiums than do bidders adhering to a focus strategy.

Table C-9. Anticipated wealth creation for targets' shareholders.

This table reports the results of the OLS regression of the target CARs for three different event windows and for the sub-samples of UK and CE targets. Variable definitions are given in Appendix C-I. For each variable we list the coefficient and the heteroskedasticity-consistent p-value. We denote characteristics of bidding and target firms by (B) and (T) respectively. a/b/c stand for statistical significance at 1%/5%/10%, respectively.

	CAR [-60, -2]						CAR [-1, +1]						CAR [+2, +60]					
	All targets (1)		UK targets (2)		CE targets (3)		All targets (4)		UK targets (5)		CE targets (6)		All targets (7)		UK targets (8)		CE targets (9)	
	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val	Coef	p-val
Intercept	-0.03	.556	-0.05	.638	0.04	.461	0.03	.135	0.06	.349	0.01	.572	**0.12a**	.001	0.00	.949	**0.19a**	.000
Cross-border bid	0.03	.418	**0.13b**	.013	-0.02	.638	**0.03c**	.096	0.03	.412	**0.03c**	.056	-0.00	.873	0.02	.472	-0.02	.634
M&A of 100%	0.02	.543	0.01	.918	0.03	.582	0.05	.214	0.04	.246	0.06	.118	**0.05c**	.064	-0.00	.987	**0.09b**	.046
Opposed bid	**0.09b**	.049	**0.10b**	.028	**0.12c**	.063	**0.07a**	.002	**0.13b**	.026	**0.05b**	.034	0.07	.162	0.05	.314	0.09	.175
Tender offer	0.06	.102	0.11	.228	0.05	.228	**0.04b**	.048	**0.11b**	.020	0.04	.117	0.01	.721	0.02	.726	0.01	.842
Withdrawn bid	0.01	.762	0.07	.382	-0.03	.562	0.03	.214	0.08	.188	0.00	.928	-0.02	.596	**0.06c**	.076	-0.08	.213
Pending bid	-0.02	.703	-0.11	.656	-0.03	.647	0.03	.316	0.05	.471	0.01	.247	**-0.13a**	.003	-0.22	.103	**-0.14b**	.014
Diversification	**0.06b**	.036	0.05	.158	**0.06b**	.032	0.02	.132	-0.00	.845	**0.05a**	.002	0.01	.632	-0.02	.218	0.05	.175
All-equity payment	-0.05	.119	-0.04	.304	-0.06	.208	**-0.06a**	.000	**-0.08a**	.003	**-0.04b**	.028	-0.02	.439	0.02	.303	-0.05	.285
Undisclosed terms	0.02	.281	0.02	.296	0.01	.139	**-0.07a**	.010	-0.06	.485	**-0.06a**	.007	**-0.10b**	.016	-0.05	.941	**-0.11b**	.034
1997-1999	**0.08a**	.010	**0.13a**	.004	**0.05b**	0.28	**0.03c**	.089	0.03	.278	0.03	.104	-0.03	.203	0.03	.236	**-0.13a**	.004
2000-2001	**0.08b**	.032	0.01	.573	**0.09b**	.018	0.02	.356	0.03	.462	0.02	.410	**-0.07b**	.016	0.00	.954	**-0.16a**	.001
Toehold	-0.17	.127	-0.15	.494	-0.19	.125	**-0.12b**	.018	-0.07	.159	**-0.29b**	.027	**-0.22a**	.006	-0.08	.460	**-0.28b**	.014
(Target) Run-up							**0.09a**	.000	0.03	.219	**0.16a**	.000	**0.06c**	.070	0.04	.351	**0.09b**	.016
Relative size	0.03	.783	0.04	.848	-0.04	.716	-0.03	.528	**-0.10c**	.096	-0.00	.913	-0.04	.617	-0.08	.356	-0.09	.548
(Bidder) Q-ratio	0.00	.815	0.00	.449	-0.03	.275	-0.00	.438	-0.00	.281	-0.00	.865	-0.01	.200	-0.00	.292	-0.01	.716
(Bidder) Leverage	0.04	.712	-0.09	.644	0.16	.487	0.04	.604	0.10	.451	0.09	.434	0.01	.946	0.09	.368	-0.07	.792
(Bidder) Cflow/TA	-0.03	.944	-0.21	.548	0.28	.741	-0.05	.776	0.12	.667	-0.30	.198	**0.36c**	.078	**0.21c**	.074	**0.45b**	.047
(Bidder) English	-0.06	.139					0.01	.683					0.00	.980				
(Bidder) Blockh>20%			-0.02	.289	0.00	.959			-0.01	.958	-0.04	.102			-0.01	.625	0.04	.316
(Target) Collateral	0.00	.920	-0.16	.103	**0.34b**	.013	-0.00	.765	-0.04	.411	0.04	.817	-0.04	.251	-0.01	.799	-0.06	.507
(Target) CFlow/TA	-0.27	.123	-0.13	.630	-0.44	.159	0.03	.841	0.05	.712	0.02	.548	-0.10	.176	-0.11	.313	-0.22	.195
(Target) English	**0.11b**	.016					**0.05b**	.032					-0.01	.704				
(Target) Blockh>20%			-0.03	.886	-0.01	.762			0.06	.567	0.01	.722			0.01	.870	0.06	.161
Nr. of observations	758		251		225		758		251		225		758		251		225	
Adjusted-R^2	0.06		0.11		0.07		0.15		0.08		0.14		0.03		0.04		0.03	
F-value	3.72	.001	3.77	.001	4.58	.000	9.88	.000	3.52	.001	5.75	.000	2.94	.002	3.09	.002	2.80	.004

Table C-10. Economic effects of the results reported in Table C-9: Predicted change in the wealth of the target firm's shareholders around M&A announcement

This table reports the economic effects of the results of the regression of the target's CARs for three different event windows and for the sub-samples of UK and CE target firms. The variable definitions are given in Appendix C-I. The numbers in the table represent the incremental changes in CARs (%) associated with a particular takeover characteristic (binary variables) or with a one standard deviation change in the reference variable (level variables). The effects that are statistically significant in the regression analysis are denoted in bold. For each event window and each subsample of the bidding and target firms, the table also reports the average CARs.

	CAR [-60, -2]				CAR [-1, +1]				CAR [+2, +60]			
	Exp. sign	All targets (1)	UK targets (2)	CE targets (3)	Exp. sign	All targets (4)	UK targets (5)	CE targets (6)	Exp. sign	All targets (7)	UK targets (8)	CE targets (9)
Reference: CAARs (%)		13.39	17.49	12.75		12.47	17.64	10.19		3.78	4.29	2.50
Incremental change in CARs (%) associated with a particular takeover characteristic (binary variable=1):												
Cross-border bid		2.59	**13.27**	-1.69	+/-	**2.68**	2.54	**3.02**		-0.40	1.87	-1.79
M&A of 100%		2.23	0.67	2.59	+	4.85	4.42	6.02		**5.41**	-0.05	**9.49**
Opposed bid		**9.23**	**10.07**	**11.68**	+	**7.41**	**13.23**	5.77		7.19	5.01	8.81
Tender offer		6.09	10.91	4.62	+	**4.47**	**10.96**	4.38		1.07	1.63	0.87
Withdrawn bid		1.42	7.48	-3.40	+/-	3.13	**8.83**	0.24	+/-	-2.09	**5.75**	-7.96
Pending bid		-2.28	-10.97	-2.84	-	2.90	4.84	0.96	-	**-12.87**	-21.69	**-14.01**
Diversification		**5.78**	5.44	**5.95**	+	2.15	-0.46	**5.12**		1.07	-2.43	5.31
All-equity payment		-4.72	-4.41	-5.53	-	**-6.19**	**-8.03**	**-4.27**		-1.99	2.35	-4.91
Undisclosed terms		1.95	1.64	0.86	-	**-6.51**	-6.11	**-6.04**		**-9.61**	-5.11	**-11.28**
1997-1999		**8.32**	**13.47**	**4.61**	+	**2.73**	2.89	3.09		-3.21	2.73	**-12.78**
2000-2001		**7.52**	1.15	**8.92**	-	1.56	2.78	1.61	-	**-6.88**	0.16	**-15.75**
(Bidder) English		-6.44				1.12				0.09		
(Bidder) Blockh>20%			-1.76	0.37			-0.54	-4.33			-1.18	3.59
(Target) English		**11.06**			+	**5.37**				-1.48		
(Target) Blockh>20%			-3.34	-1.41			6.48	1.08			0.84	6.01
Incremental change in CARs (%) associated with a one standard deviation change in a particular takeover characteristic:												
Run-up						**2.45**	0.78	**4.65**		**1.63**	1.04	**2.62**
Toehold		-1.92	-1.28	-2.59		**-1.36**	-0.60	**-3.95**		**-2.49**	-0.68	**-3.82**
Relative size		0.67	0.77	-1.08		-0.67	**-1.92**	0.11		-0.89	-1.54	-2.43
(Bidder) Q-ratio		1.02	1.01	-11.69		0.26	0.39	0.12		-5.12	0.52	-3.90
(Bidder) Leverage		0.65	-1.62	2.40		0.65	1.80	1.35		0.16	1.62	-1.05
(Bidder) CFlow/TA		-0.32	-2.89	2.26		-0.54	1.65	-2.42		**3.89**	**2.89**	**3.63**
(Target) Collateral		0.01	-4.33	**8.45**		0.02	-1.08	0.99		-1.04	-0.27	-1.49
(Target) CFlow/TA		-3.23	-1.41	-4.84		0.36	0.54	0.22		-1.20	-1.20	-2.42

5.2.2 *Target's announcement effect*

In addition to a considerable share price run-up, target shareholders can make substantial gains upon the actual announcement of a hostile bid (model 4 in table C-10). The difference in the returns of hostile and unopposed bids amounts to 741 basis points. The announcement of a tender offer is another important factor increasing the value of the target firm (447 basis points). Both results are in line with the hold-out argument: the bidder needs to pay a higher premium to induce small target's shareholders to sell their shares. As such, the more diffuse the target's control structure the higher is the premium paid. This conjecture may also explain the substantially larger wealth effects of hostile bids and tender offers for UK relative to CE targets (see models 5 and 6). One reason is that dispersed ownership structures prevail in the UK but not in Continental Europe. The difference between the announcement effects for UK and CE targets is further confirmed by the significant positive coefficient of the English legal origin indicator variable (model 4). Target companies from English common law countries accumulate markedly higher announcement premiums than do firms from civil law countries (the difference amounts to 537 basis points).

The announcement premium accrued to target shareholders is 273 basis points higher at the peak than at the beginning and the end of the takeover wave. Higher premiums (by 268 basis points) are also observed in cross-border acquisitions. When the terms of the deal remain undisclosed or when the offer involves an equity exchange, the bidder's share price declines by 619 and 651 basis points, respectively.

There is a significant positive relation between the share price run-up and announcement returns of CE target firms. A run-up premium of 100 basis points leads to an additional return of 16 basis points at the bid announcement (model 6). This result stands in sharp contrast to Schwert (1996) who does not find such a relation for the US. Remarkably, Table C-9 does not report such a relation for UK target firms either (model 5). The significant relation between mark-up and run-up premiums for CE targets suggests that the share price run-up, frequently caused by insider trading (Schwert, 1996; Meulbroek, 1992), is harmful to bidding firms as it significantly raises the price paid to acquire control.

Another feature of M&As involving CE targets is the negative relation between the bidder's toehold and the announcement premium accrued to target shareholders. A one standard deviation increase in the bidder's pre-bid ownership of target shares leads to a 395 basis point reduction in the target announcement returns. Betton and Eckbo (2000) report similar evidence for US firms. They explain that a larger toehold implies a higher probability of the relatively low target payoff in the single-bid success outcome.[70] The relation between the toehold and the announcement effect is insignificant however for UK firms.[71]

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[70] A larger toehold reduces the overall takeover price a bidder will have to pay (Grossman and Hart, 1980; Shleifer and Vishny, 1986).

[71] The lack of significance may be explained by the fact that only 9% of the UK bidders actually acquire a toehold in the target firm prior to the bid. Moreover, the average size of their toehold is less than 3%. In contrast, 20% of Continental firms launch a takeover with a positive toehold, with an average of 6.43%.

We also observe that the shareholders of CE targets are the main winners in diversified takeovers. Diversifying bids are associated with a premium which is 512 basis points higher than that in focus-oriented deals. When a UK company is acquired, the relative size of the transaction matters: a one standard deviation increase in the relative size leads to a reduction of 192 basis points in the target's announcement premium. Withdrawn takeover bids lead to significant share price increases (883 basis points) for the UK target firms. This increase itself may be one of the reasons a bid ultimately fails, as a bidder is likely to withdraw its bid if target shareholders demand too high a premium.

5.2.3 Target post-announcement returns

The models explaining the post-announcement returns accrued to target shareholders have low explanatory power because these share prices remain relatively unchanged. As model 7 in table C-10 shows, the target abnormal returns decrease by 961 basis points when the takeover terms are not disclosed, and by 1287 basis points when the bidder faces difficulties in completing the transaction. In contrast, the CARs increase after the announcement of a full acquisition (by 541 basis points). As in the case of the announcement CARs, the share price run-up positively affects post-bid target returns. This indicates that these are additional costs to the bidding firm triggered by pre-announcement leakages of information. However, the negative coefficient on the toehold variable indicates that bidding firms pay a lower total price when they acquire a toehold in the target firm prior to the bid. Takeover bids made in the period of the peak and decline of the takeover wave are associated with a significantly negative post-announcement stock price revaluation (by 321 and 688 basis points, respectively). However, all the effects mentioned in this subsection are only significant for CE target companies (model 9). In the UK, the post-announcement CARs of target firms are positively influenced by a withdrawal of the bid (model 8). It seems that investors are relieved that the bid is withdrawn and that they anticipate other, more profitable bids.

The only common effect for both UK and CE targets is the positive relation between the targets' post-bid returns and cash flows (see models 8 and 9). A one standard deviation increase in a target firm's cash flow triggers an increase in the post-announcement premium of 389 basis points. On the one hand, this suggests that negotiations between target shareholders and the bidder are on-going and that a cash-rich target has better opportunities to negotiate a higher premium. On the other hand, this result is also in line with the conjecture that a cash-rich target is more able to apply anti-takeover measures such as share buy-backs or an increase in dividend payout, which make its acquisition more costly for the bidder.

6. Conclusions

This chapter has examined the determinants of the market reaction to the announcements of European corporate takeovers that took place during the period 1993-2001, the fifth takeover wave. We

document that the majority of takeover deals is expected to generate synergy values: they trigger substantial share price increases at the announcement, most of which are captured by the target firm shareholders. We find large announcement effects (of 9%) for the target firms compared to a (statistically significant) announcement effect of merely 0.5% for the bidding firms. Analysis of pre-bid cumulative abnormal returns reveals that bidder and target price reactions are not limited to the announcement day but commence already more than two months prior to the initial public announcement. Including the price run-up, the cumulative abnormal returns increase to 21% for the targets and 0.9% for the bidders. Subsequent to the event day, negative revaluations of the bidder and target's share prices occur.

We show that there is systematic variation in the valuation effects of takeovers with different characteristics, and these findings are valid for both UK and Continental European firms. First, hostile takeovers and tender offers trigger substantially larger price reactions to the target shareholders than do friendly M&As. Second, investors adjust downwards both the bidder and target's share prices at the announcement of all-equity offers. Third, target shareholders gain higher premiums in cross-border takeovers. Fourth, an acquisition of a private firm triggers significantly positive abnormal returns to the bidder's shareholders. We also demonstrate that takeovers occurring when takeover activity is slowing down trigger lower gains to both bidder and target shareholders than do deals at the beginning of the wave.

We also detect some fundamental differences between takeovers in the UK and Continental Europe:

First, the shareholders of UK target firms are able to pocket significantly higher returns than their Continental European peers. We relate this difference in premiums to a more strict takeover legislation in the UK than in the Continental European countries, which protects the UK target shareholders from expropriation by the bidder and gives these target shareholders more power to extract higher premiums in takeover negotiations (see also Goergen et al. (2005) for an overview of takeover regulation).

Second, the presence of a large shareholder in the bidding firm has a significantly positive impact in the UK and a negative one in Continental Europe. This evidence suggests that investors view the roles of the major shareholders in UK and Continental European firms as fundamentally different. The presence of a large blockholder in a UK bidder company is regarded as a credible signal that the takeover decision is driven by motives of profit maximization. In contrast, the presence of a controlling shareholder in a Continental European firm may be interpreted as a signal that the takeover may also expropriate the firm's minority shareholders. The lack of an efficient takeover regulation and weak protection of shareholders in Continental Europe is likely to account for this difference.

Third, there is evidence of a significantly positive relation between mark-up and run-up premiums to bidder and target firms from Continental Europe. This finding stands in sharp contrast to Schwert (1996) who does not find such a relation for the US. Our analysis shows that the UK market exhibits no such a relation either. The run-up premium is typically caused by insider trading, which is

less regulated in Continental Europe than in the UK. Therefore, the positive relation between run-up and mark-up premiums indicates that insider trading is harmful to Continental European bidding firms, as it significantly raises the price paid to acquire target shares. This in turn, may discourage potential bidders from making a takeover bid.

Finally, the Continental European market is also distinct in that there are a high number of takeover bids where the transaction terms remain undisclosed. Such transactions lead to substantial losses to the shareholders of both bidding and target firms. Similarly, acquisitions of partial control, virtually non-existent in the UK but prevailing in Continental Europe, trigger significantly lower share price reactions at their announcement. This evidence suggests that Continental European regulators who want to facilitate efficient corporate restructuring in their countries need to introduce measures to prevent takeovers leading to expropriation of the bidder and target's (minority) shareholders.

Appendix C-I. Variable Definitions

Variable	Definition
1997-1999	Indicator equals one if the bid was initiated in the period between January 1, 1997 and December 31, 1999 (the climax of the 5th takeover wave); equals zero otherwise. Source: *SDC*
2000-2001	Indicator equals one if the bid was initiated in the period between January 1, 2000 and December 31, 2001 (the decline of the 5th takeover wave); equals zero otherwise. Source: *SDC*
All-cash payment	Indicator equals one if the acquisition is fully paid with cash, and equals zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
All-equity payment	Indicator equals one if the acquisition is fully paid with equity, and equals zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
Blockh>20%	Indicator equals one if the firm is controlled by a blockholder owning a voting stake of 20% and more prior to the takeover. Source: see Data Appendix 1 (in the end of the book).
Blockh>60%	Indicator equals one if the firm is controlled by a blockholder owning a voting stake of 60% and more prior to the takeover. Source: see Data Appendix 1 (in the end of the book).
CFlow/TA	Ratio of total cash flow (including cash flow from operating, financial, and investment activities) to total assets, at the year-end prior to the deal announcement. Source: *SDC and Amadeus/Fame/Reach and DataStream.*
Collateral	Ratio of tangible assets to total assets; both refer to the year prior to the deal announcement. Source: computed based on *Amadeus/Fame/Reach and DataStream.*
Control (%)	Ultimate voting stake owned by the bidder's largest shareholder. Source: see Data Appendix 1 (in the end of the book).
Cross-border bid	Indicator equals one if the bidder and target are from different countries, and equals zero otherwise. Source: *SDC and LexisNexis, Factiva, and Financial Times*
Diversification	Indicator equals one if the bidder and target operate in different industries (their primary 2-digit SIC codes do not coincide), and equals zero otherwise. Source: *SDC and Amadeus/Fame/Reach*
English	Indicator equals one if the firm is incorporated in a country of English legal origin (Ireland and the UK), and equals zero otherwise. *Source*: computed based on the *LaPorta et al. (1997)* classification
Investments/TA	Ratio of total investments to total assets, both refer to the year-end prior to the deal announcement. Source: *Amadeus/Fame/Reach and DataStream*
Leverage	Ratio of total debt to total assets at the year-end prior to the deal announcement. Source: computed based on *Amadeus/Fame/Reach and DataStream*
Friendly M&A	Indication equals one if the takeover is not qualified as an opposed (by the target firm) bid or as an unopposed tender offer (see Opposed bid and Tender offer); it is zero otherwise. <u>Source</u>: *SDC, LexisNexis, Factiva, and Financial Times*
M&A of 100%	When CARs over windows [-60, -2] and [-1, +1] are analyzed, the indicator equals one if the bidder *intends* to hold 100% of the share capital of the target firm after the bid completion, and equals zero otherwise. When CARs over window [+2, +60] are analyzed, the indicator equals one if the bidder owns 100% of share capital of the target firm after the bid completion, and equals zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
Market value	Market capitalization of the bidding firm 60 days prior to the initial bid announcement. Source: *Amadeus and DataStream*
Opposed (by the target's board) bid	Indicator equals one if the initial takeover offer meets a negative reaction by the management of the target firm or if a competing bid is made. <u>Source</u>: *SDC, LexisNexis, Factiva, and Financial Times*
Pending bid	Indicator equals one if the bid has been announced but has not been completed or withdrawn afterwards. Source: *SDC, LexisNexis, Factiva, and Financial Times*
Private target	Indicator equals one if target firm was a stand-alone firm not listed on any stock exchange at the moment of the bid announcement, and is zero otherwise. Source: *SDC and Amadeus/Fame/Reach*
Q-ratio	Ratio of market value of equity (ordinary and preferred) plus book value of debt over the sum of book value of equity and book value of debt. The market value of equity is taken 60 days prior to deal announcement, book value of equity and debt are at year-end prior to deal announcement. Source: *Amadeus/Fame/Reach and DataStream*
Relative size	The ratio of transaction value over the sum of the transaction value plus the bidder's market capitalization. If the transaction value is undisclosed, we employ the product of the percentage of share capital acquired and the book value of the target firm's assets one year prior to the bid as a proxy. Source: *SDC, LexisNexis, Factiva, and Financial Times and Amadeus/Fame/Reach and DataStream*
Returns on Assets	Ratio of net income to total assets, both refer to the year-end prior to deal announcement. Source: *Amadeus/Fame/Reach and DataStream*

Variable	Definition
Run-up	Cumulative abnormal returns (CARs) of bidder/target over the window [-60, -2] preceding the day of the deal announcement. The market model is adjusted for thin-trading and reversion to the mean over the period of 300 to 60 days before M&A announcement; the market index is the MSCI Europe index. Source: *DataStream*
Sales/TA	Ratio of sales revenues to total assets; both refer to the year-end prior to the deal announcement. Source: *Amadeus/Fame/Reach and DataStream*
Tender offer (unopposed by the target's board)	Indicator equals one if the bidder makes a public offer to purchase shares of the target firm and the takeover is not classified as opposed (see Opposed bid); and is zero otherwise. Generally, an unopposed tender offer is a public offer to the target shareholders asking them to sell their shares for cash and/or equity at a pre-specified price or equity exchange ratio, while the board of directors of the target firm does not issue negative statements about the bid. Source: *SDC, LexisNexis, Factiva, and Financial Times*
Toehold	Percentage of the target firm shares that the bidder had accumulated prior to the bid announcement. Source: *SDC, LexisNexis, Factiva, and Financial Times*
Total assets	Total assets of the firm at the year-end prior to deal announcement. Source: *DataStream and Amadeus/Fame/Reach*
Undisclosed terms	This indicator variable equals one if the terms of the transaction such as the means of payment or the transaction value are not disclosed, and equals zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
Withdrawn bid	Indicator equals one if the bid was ultimately unsuccessful, and equals zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*

CHAPTER 5.

SOURCES OF TRANSACTION FINANCING IN CORPORATE TAKEOVERS

1. Introduction

The empirical literature has given notable attention in recent years to the choice of the means of payment in corporate takeovers (see e.g. Amihud, Lev, and Travlos, 1990; Martin, 1996; Ghosh and Ruland, 1998; and Faccio and Masulis, 2005). In this literature, the term 'means of payment' is frequently considered as synonymous to the 'sources of takeover financing'. The bidder's payment decisions are often used to test theories that explain how firms finance their investment projects (such as Myers, 1977; Jensen and Meckling, 1976; Myers and Majluf, 1984). The classification by means of payment, however, typically ignores the sources of transaction financing in all-cash offers and assumes that these offers are entirely financed with cash. If the external sources of funds (debt and equity) are frequently used to finance all-cash offers, the means of payment is no longer an appropriate proxy for the sources of transaction financing in corporate takeovers. Therefore, the analysis of the motives underlying the means of payment may lead to incorrect conclusions about the validity of the theories that explain the firm's financing decision.

This chapter contributes to the existing M&A literature by investigating explicitly the motives underlying the bidder's decision how to finance a takeover bid. Based on the classification of takeovers by sources of transaction financing (instead of the one by the means of payment), we test a set of predictions derived from the dominant theories of how companies choose financing sources for their investment projects. Thus, in a novel way, we test whether the bidder's financing decision is driven by the following explanations: pecking order (Myers and Majluf, 1984), debt overhang (Myers, 1977), takeover threats (Zwiebel, 1996), agency cost of equity and debt (Jensen and Meckling, 1976), and financial flexibility (Bolton and Freixas, 2000). We also examine whether the bidder's preferences for specific means of payment have an impact on the choice of the sources of funding. The overall analysis is further complemented with the investigation of how the market reacts to the announcement of takeovers financed with different types of capital.

To our best knowledge, this is the first empirical study that models the sources of financing used in corporate takeovers. The lack of reliable data on the sources of takeover financing may have been the main reason why the financing decision of the bidding firms has never been investigated before. Our analysis is based on a unique hand-collected dataset of European takeover bids that were launched during the fifth takeover wave (1993-2001).

We document that external sources of financing (debt and equity issues) are frequently employed in takeovers that involve cash and mixed payments. In more than 850 acquisitions entirely paid with cash, one-third is at least partially financed with external funds (70% of which are financed with debt). Of the 260 firms opting to make an offer consisting of a combination of equity and cash, 37% borrow to finance the cash component of the takeover offer.

Our analysis reveals that in addition to the means of payment, sources of transaction financing are an important determinant of the market reaction to the takeover announcement. Investors differentiate between information about the payment method and sources of takeover financing and take into account both takeover characteristics. In particular, the market reaction to the announcements of acquisitions fully paid by cash but financed by equity is similar to the market reaction to the announcements of acquisitions fully paid by equity. Moreover, we observe that a negative price revision follows the announcement of any corporate takeover that involves equity financing. In contrast, the price correction that takes place subsequent to the debt-financed bids is insignificant. We also find marked evidence that, in sharp contrast to the negative returns of all the other types of offers, cash-paid debt-financed acquisitions create substantial value (about 3%) to the bidding firms over a 6-month period centred around the day of the takeover bid. This evidence shows that earlier research that partitioned takeover bids into cash versus equity offers has oversimplified reality.

The *financing decision* (the bidder's choice between cash, debt, and equity financing) is explained by the pecking order preferences as well as by conflicting interests between shareholders and creditors. In contrast, none of those factors explain the motives to use a specific means of payment in the takeover bid. The *payment decision* depends on the degree to which the bidders' large shareholders wish to retain control after the takeover, on whether or not the bidders' shareholders intend to share the risk of the transaction with the target's shareholders, and on the characteristics of the takeover bid. However, these factors have an insignificant impact on the bidder's financing choice once we condition on the payment mode. We therefore conclude that the decisions on the means of payment and the sources of takeover financing are not substitutes. Instead, these decisions are made to solve different problems.

The focus on intra-European mergers and acquisitions (M&As) involving Continental European and UK companies confers additional value to this chapter, as it allows us to explore the impact of a wide range of institutional settings and regulatory rules on the patterns of the financing decisions. We capture the differences in the regulatory corporate governance environment across European countries by a set of newly created governance indices. With the help of 150 corporate lawyers from 32 European countries, we have created a corporate governance database that comprises the main changes in corporate governance regulation in all European countries over the last 15 years. For each country, we quantify the regulations and measure their effectiveness in mitigating the conflicts of interests between the various corporate constituencies: the management, the majority and minority shareholders, and the creditors. We also quantify the regulatory provisions aiming at improving the transparency of corporate information. Our database reveals that corporate governance regulation has been substantially reformed

in virtually every European country during the 1990s. Therefore, it is important to note that, in contrast to previous studies, all legal indices employed in this chapter are time-varying and reflect all changes in the legal environment during the analysed period.

Our evidence demonstrates that the financing choices are very sensitive to the differences in the legal environments by country. As expected, the choice of equity financing is more likely in countries with better shareholder rights protection. When shareholder rights protection is low, companies more frequently resort to debt and cash as financial sources. Moreover, debt financing prevails in countries with better creditor protection. This evidence is in line with LaPorta et al. (1998) who argue that a better protection of financiers from expropriation facilitates the development of well-functioning capital markets and ensures lower costs of financing. Since the legal protection of shareholders and creditors affects the cost of equity and debt capital, it induces systematic corporate preferences for the least expensive sources of funding. In contrast, we find no significant impact of the legal environment on the choice of payment method in takeovers.

The remainder of the chapter is organized as follows. In Section 2, we formulate the hypotheses on what drives the bidders' choice of how to finance the takeover. Section 3 describes the sample selection procedure, data sources, and sample statistics. Section 4 discusses the methodology. In section 5, we present and interpret our empirical findings. Section 6 concludes.

2. Motivation and Hypotheses

A prominent view in the corporate finance literature is that equity issues reduce firm value. Indeed, share price reductions arise when equity is used as a means of payment in M&As (see e.g. Moeller et al, 2004; Andrade et al., 2001; Franks et al., 1991) or when seasoned equity offerings are made (see e.g. Asquith and Mullins, 1986; Masulis and Korwar, 1986; Mikkelson and Parch, 1986). In spite of the negative price reactions, equity financing has not been a rare phenomenon over the past two decades. In particular, a switch from cash to equity in the financial composition of takeover bids arose over the 1990s: Andrade et al. (2001) document that all-equity acquisitions represented 32.9% of all US M&As in the 1980s versus 57.8% in the 1990s.[72] Similarly, Martynova and Renneboog (2006) show that equity has become an increasingly popular source of financing in European M&As: the proportion of all-cash acquisitions fell by half in the 1990s compared to the 1980s. The question arises why all-equity offers or mixed offers are still so frequently used in corporate takeovers and whether these choices depend on the firms' financial resources.

An extensive body of theoretical and empirical research has studied the determinants of corporate financing decisions. The dominant explanations can be classified into two groups: cost of capital considerations and agency-related issues. The former explanation upholds that market

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[72] Fama and French (2002) document that issues of equity in mergers and acquisitions are much more sizeable than public equity issues that are not M&A-related.

imperfections or institutional rigidities, such as information asymmetries (Myers and Majluf, 1984), legal protection of shareholders and creditors (LaPorta et al., 1998), or taxes (Modigliani and Miller, 1963) may disproportionally affect the costs of debt and equity capital and hence make one of the sources of financing more attractive than another. The latter explanation endorses that a firm issues specific securities to mitigate agency problems between its management, shareholders, and creditors (Myers, 1977; Zwiebel, 1996). At the same time, the agency problems themselves may induce systematic corporate (management) preferences with regard to the sources of funding (Jensen and Meckling, 1976). When the firm's investment opportunities involve a corporate acquisition, the choice of the sources of financing often depends on the preferred payment mode in the takeover deal. Therefore, corporate strategic preferences for one payment method over another are also seen as important factors affecting a bidder's funding decision. We consider the means of payment considerations of the bidding firm as the third dominant explanation for its financing decision.

In the remainder of this section, we formulate the hypotheses on how the bidder's choice of the sources of takeover financing depends on the cost of capital considerations, agency problems, and on the preferences for specific payment methods in the takeover deal.

2.1 Cost of Capital considerations (CC)

CC1. Pecking Order and Market Timing:

The negative price reaction to the announcement of equity issues is typically ascribed to asymmetric information. Myers and Majluf (1984) argue that investors consider an equity issue as a signal that a firm is overvalued which leads to a downward revision of the share price.[73] This adverse price effect of an equity issue increases its costs and forces firms to issue equity only when alternative sources of financing are unavailable or too costly. However, the value reduction induced by equity issues may be less severe in periods of stock market booms. Not only do buoyant equity markets overvalue shares in the short-run (hence making equity a relatively cheap source of financing), they also induce investors to under-react to negative signals about the firms' fundamental values (Baker, Ruback, and Wurgler, 2004).[74] When contracting debt is no longer advantageous compared to issuing equity,

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[73] In the presence of information asymmetries between management and investors, the management has an incentive to issue equity when the shares of the firm are temporarily overvalued, as this would increase the wealth of the incumbent shareholders. Realizing this, outside investors consider an equity issue as a negative signal about the true value of the firm such that their share transactions adjust the share prices correspondingly.

[74] The overvaluation of a bidding firm's equity may also have a bearing on the choice between cash or equity payments (and hence the financing) in a takeover bid. Shleifer and Vishny (2003) and Rhodes-Kropf and Vishwanathan (2003) show that overvalued bidders use equity to buy real assets of undervalued (or less overvalued) targets. This way they hope to take advantage of the mispricing premium over the longer term when the overvaluation may be corrected.

firms are more likely to raise money for takeovers by performing seasoned equity issues (Choe, Masulis, and Nanda, 1993).[75] Consequently, we formulate the following predictions (CC1):

CC1(a): An equity issue is more likely when a firm has insufficient cash funds and limited debt capacity to finance takeovers. A debt issue has priority over an equity issue and is more likely when firms are cash-constrained but still have sufficient debt capacity.

CC1(b): Equity financing of takeovers is more likely in periods of a stock market booms.

Our measure of insufficient cash funds (i.e. an internal funding deficit) is the bidder's internally generated funds and cash surpluses divided by the transaction value (CFLOW/TRANSVAL and CHLDG/TRANSVAL respectively). A ratio less than one denotes that the bidder's internal sources of funds are insufficient to finance an acquisition entirely by cash. Two variables are used as proxies for the bidder's debt capacity: COLLATERAL is the percentage of tangible assets in total assets of the combined firm (sum of tangible assets of the bidding and target firms over sum of total assets of the two firms). As tangible assets represent collateral for outside investors, we expect firms with a higher percentage of tangibles to attract external financing more easily (Myers, 1977; Hovakimian et al., 2001). The second variable, FIN LEVERAGE, is calculated as the sum of the bidder's long-term debt and the transaction value, divided by the sum of the bidder's book value of assets and the transaction value. This measure captures the leverage of the bidding firm if it finances the takeover entirely by debt. All the variables mentioned above are calculated at the year-end prior to the deal announcement. Our measure of the bidder's share price performance prior to the bid consists of the daily abnormal returns cumulated over the window starting 60 days and ending 20 days prior to the bid announcement (RUNUP). To control for stock market booms, we construct indicator variables for the periods 1993-1996 (stock market recovery), 1997-1999 (stock market boom), and 2000-2001 (stock market decline).

CC2. Regulatory Environment:

A growing literature advocates that regulation is an important determinant of corporate financing decision. LaPorta et al. (1997, 1998), Levin (1999), and Djankov et al. (2004) argue that regulation affects the terms at which financiers are willing to provide firms with funds. When a regulatory environment protects the providers of funds against expropriation by entrepreneurs, this ensures the availability of external finance at lower costs. Strong creditor protection assumes that lenders force repayment more easily, take possession of collateral, or even gain control over the firm. This results in lower creditor risks and hence in lower borrowing costs. Consequently, this increases the relative attractiveness of borrowing. Alternatively, strong shareholder protection enabling shareholders to participate in or monitor corporate decision-making reduces the risks for the shareholders and increases the relative attractiveness of equity financing. In addition, a bidder is more likely to issue equity in countries with better corporate transparency standards, as the adverse effects of equity issues are less

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[75] In line with this argument, much empirical evidence documents that an improvement in the stock market and overall economic activity boosts IPO and SEO issues (see e.g. Marsh, 1982; Choe et al., 1993; Lowry and Schwert, 2002)

severe when transparency is higher. Bidding firms controlled by large shareholders may be more reluctant to use equity financing in countries with lower protection of minority shareholder rights. When minority shareholders have little influence, large shareholders may exploit private benefits of control at their expense. Since an equity issue may weaken the control position of the large shareholders and hence dilute their private benefits of control, we expect their firms to avoid financing investment projects by equity. Overall, the financing choice depends on the relative magnitude of the costs associated with debt and equity issues. We hypothesize that:

CC2(a): Firms are more likely to use debt financing for acquisitions in countries where the costs of issuing equity are substantially higher due to poor shareholder protection or where the costs of borrowing a relatively lower due to better creditor protection.

CC2(b): An equity issue to finance takeovers is more likely to occur in countries with higher transparency standards and lower protection of minority shareholders.

We measure the differences in the regulatory corporate governance environment (shareholder, creditor, and minority shareholder rights protection, and transparency standards) across European countries with four newly created governance indices. The methodology employed to construct the indices is described in Section 3.3 and Appendix D-II. We multiply each index by a 'law enforcement' index (the Rule of law and Corruption indices of the World Bank). The reason is that good corporate governance regulation may be less influential if its enforcement in courts is not sufficiently strong.

2.2 Agency Problems between corporate claimants (AG)

AG1. Agency Cost of Equity and Takeover Threat:

For managers who pursue a personal agenda at the expense of value maximization a debt issue may be regarded as the least preferred source of financing as it restricts the availability of corporate funds at their disposal (Jensen and Meckling, 1976). In contrast, an equity issue increases the funds under managerial discretion and hence may be strictly preferred by the manager. This agency conflict between the management and shareholders is most pronounced in widely-held corporations where shareholder activism and efficient monitoring of the management is low (Berle and Means, 1932). Therefore, we predict that:

AG1(a): Firms with a diffuse ownership structure are more likely to issue equity to finance takeovers.

As dispersed (atomistic) shareholders have few incentives to monitor the management directly, they rely on external monitoring by the market for corporate control. Zwiebel (1996) shows that entrenched managers may voluntarily opt for debt financing because of the takeover threat from the market for corporate control. In his dynamic model, hostile takeovers target poorly performing firms and replace their management. The threat of losing their jobs and perquisites provides managers with an

incentive to focus on the shareholder value maximization, and a debt issue allows them to constrain their own discretion over corporate funds credibly. Thus, we can formulate the following hypothesis:

AG1(b): Managers anticipating a takeover threat are more likely to finance acquisitions with debt.

We employ two variables to measure the dispersion of the bidder's corporate control structure. First, CONTROL (%) is the ultimate voting stake owned by the bidder's largest shareholder. The second variable, BLOCKHDR>20, is a binary variable indicating the presence of a blockholder owning a voting stake of at least 20%. Following Faccio and Lang (2004), we assume that that 20% of the voting shares suffices to ensure control. If no shareholder exceeds the threshold, we consider the company is widely held. The measure of the bidder's takeover vulnerability, TO THREAT, is the likelihood that the bidder becomes a target of a corporate takeover in the year when it makes an acquisition. It is estimated by a probit model applied to all European firms for the period 1993-2001.[76]

AG2. Debt Overhang:

Myers (1977) argues that the conflicting interests of shareholders and creditors may encourage firms to issue equity rather than debt to raise external funds. In his view, the wealth-maximizing preferences of shareholders dictate that managers undertake a project only if its expected benefits exceed the payments to the debtholders. This may lead to underinvestment as managers may forego positive NPV investment projects if the expected benefits only suffice to repay debt and leave no return to the shareholders. To minimize the scope of underinvestment, firms with high quality projects may limit leverage and hence avoid further borrowing. This leads us to the following prediction:

AG2: Firms with high growth potential finance acquisitions by equity.

Our main measure of the bidder's growth potential is Tobin's Q, calculated as the bidder's market value of equity (ordinary and preferred) plus book value of long-term debt divided by the sum of the book value of equity and long-term debt. Other measures employed are the average growth rate in sales (SALES 3YGR), in capital expenditures (CAPX 3YGR), and in total assets (TA 3YGR) over the 3 years prior to the year of the acquisition.[77] Detailed definitions of the alternative measures are given in Appendix D-I.

AG3. Agency Cost of Debt and Financial Flexibility:

In addition to the underinvestment problem, conflicts of interests between shareholders and creditors may also lead to another agency problem; namely, excessive risk taking by the management.

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[76] The sample of European firms for the period 1992-2001 is an unbalanced panel. The dependent variable in the probit model equals one if the company was acquired during the year and is zero otherwise. The set of independent variables is taken from the prior literature explaining the probability of takeovers (Hasbrouck, 1985; Palepu, 1986; Ambrose and Megginson, 1992; Cremers et al., 2005). The estimated parameters of the model are available upon request.

[77] The advantage of these growth measures is that they are not affected by differences in accounting policies across firms (countries). However, the disadvantage is that, in contrast to Tobin's Q, they are not forward-looking.

Black and Scholes (1973) show that the equity of a leveraged firm is a call option on the firm's assets whose value increases with the volatility of future cash flows. This implies that the management of the leveraged firm can maximize shareholder wealth by increasing the risk of the projects it invests in, and hence re-distribute wealth from bondholders to its shareholders. Higher earnings volatility increases the expected bankruptcy costs which creditors may anticipate by demanding better terms in the debt covenants. Consequently, the cost of borrowing increases, which makes debt financing less attractive or even prohibitively expensive for leveraged and risky firms. This leads us to the following hypothesis:

AG3(a): Leveraged firms with high earnings volatility are less likely to choose debt financing.

Bolton and Freixas (2000) formulate an alternative theory. In their capital market equilibrium, risky firms prefer bank loans to equity financing because banks are good at helping firms through times of financial distress. That is, firms facing high risk of bankruptcy are more likely to establish close lending relationships with banks. This provides them with access to the cheapest form of flexible financing. Safer firms prefer to issue equity (and bonds) and hence avoid paying the intermediation cost associated with bank loans. However, Bolton and Freixas (2000) note that the riskiest firms (often start-up firms and risky ventures) are either unable to obtain funding or forced to issue equity, as they are too risky to be granted bank loans.

Whereas Bolton and Freixas (2000) distinguish between debt financing in the form of a bank loan and a bond issue, we are unable to follow this classification due to the data limitations described in Section 3.1. However, we can test the predictions of their model on the firm's preference between equity and debt (bank loan) financing for the following two reasons. First, the European market for corporate bonds is small (relative to that of the US) and most of the debt financing consists of bank loans (common in e.g. Germany) or of private placements of loan notes (common in the UK).[78] Second, in terms of the firm's ability to renegotiate debt contracts in the times of financial distress, privately issued loan notes (which are also frequently unsecured) are more similar to bank loans than to publicly issued bonds. The reason is that public debt is difficult to renegotiate due to coordination problems between small creditors (bondholders), whereas private debt (privately issued loan notes) - just like bank loans - frequently involves only one or a group of large creditors. Therefore, following predictions of Bolton and Freixas (2000), we hypothesize that:

AG3(b): Firms with high earnings volatility are more likely to choose debt financing in takeover deals.

AG3(c): Young risky firms are more likely to use equity financing in takeover transactions.

To proxy for a firm's risk, we employ the age of the bidding firm (AGE) and its exposure to the market risk (BETA) estimated with the market model over the period between 300 and 60 days prior to the takeover announcement. We expect shares of relatively young firms and firms with high beta to be more risky.

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[78] The only European corporate bond market that is sufficiently large and liquid is the Eurobond market.

2.3 Means of Payment considerations (MP)

As the bidder's decision regarding the sources of takeover financing often coincides with or depends on the choice of the payment mode in the takeover deal, we complement our above analysis with the reasons why bidders prefer a specific means of payment in corporate takeovers.

MP1. Risk Sharing:

Information asymmetry between bidder and target are an important determinant of the means of payment in corporate acquisitions. In particular, high uncertainty about the true value of the target firm induces the bidder to pay with its own equity instead of with cash. Capital participation in the combined firm makes the target shareholders share the risk of downward post-acquisition revaluations. Hansen (1987) predicts that misvaluation of the target firm is especially harmful for the bidders when the transaction value is high and the size of the target's assets is comparable to that of the bidder's assets. Therefore, we hypothesize that:

MP1: The probability that an equity offer is made increases with the absolute and relative transaction value.

To test the risk-sharing hypothesis, we employ three variables: the market value of the bidding firm (MVAL) measured 60 days prior to the bid announcement, the transaction value (TRANSVAL) measured by the total amount the bidder pays to purchase shares of the target firm (excluding assumed liabilities), and the relative size of the transaction (RELVAL) calculated as the transaction value divided by the sum of the transaction value and the bidder's market capitalization.

MP2. The Threat of Control Change:

Faccio and Masulis (2005) document that a change in corporate control structure in the form of voting power dilution and the emergence of an outside blockholder may discourage bidders from paying for acquisitions with equity. These findings support the theories by Harris and Raviv (1988) and Stulz (1988) predicting that an equity exchange is less likely to be used when an equity issue dilutes the voting power of the blockholders or share-owning managers of the acquiring firm. Thus, the likelihood of an equity payment is largely determined by the control structures of the bidding and target firms. In particular, a cash payment is strictly preferred to an equity payment when the target's share ownership is concentrated or a bidder's largest blockholder only holds an intermediate level of voting power.[79] This preference is weakened if the target company is widely held or if the bidder's dominant shareholder has a supermajority of voting rights. The threat of control change hypothesis can be formulated as follows:

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[79] We consider voting stakes in the range of 20 to 60 percent as an intermediate level of voting power. This is the range where the control position of the large shareholder is most vulnerable to being diluted by an equity offer.

MP2: A bidder is unlikely to make an all-equity payment if the takeover bid significantly affects the firm's control structure.

To capture the potential impact of an all-equity offer on the control structure of the bidding firm we consider the following four variables. CONTROL THREAT is the voting stake in the combined firm that the largest shareholder of the target firm obtains provided the acquisition is entirely paid with equity. This variable captures that an all-equity bid creates a new large shareholder in the merged firm and hence threatens the control positions of the bidder's incumbent shareholders. To measure the extent of the control loss for the bidder's incumbent blockholders, we employ three indicator variables characterizing the bidder's control structure. Following Faccio and Masulis (2005), we distinguish between widely held companies in which no blockholders hold at least 20% of voting rights (CONTROL<20), companies with intermediate control concentration in which a blockholder owns a voting stake between 20% and 60% (20<CONTROL<60), and firms controlled by a blockholder holding a strong majority of voting rights (CONTROL>60). The bidder's control structure is likely to be affected by an all-equity offer if the firm is controlled by a shareholder with an intermediate level of voting power.

MP3. Characteristics of the takeover bid:

The characteristics of a takeover offer may significantly affect the choice of the payment method. First, an equity payment is less likely to be offered in cross-border takeovers, as selling equity to foreign investors faces some hurdles. The seller may be reluctant to accept an equity offer from a foreign acquirer if the latter's shares are not traded in the seller's country. This could entail that the bidding firm('s quality) may be less known in the seller's country (see e.g French and Poterba, 1991; Coval and Moskowitz, 1999). Also, the regulation in the target firms' countries may impose restrictions on foreign equity investments (Faccio and Masulis, 2005). Second, cash offers increase the probability of the bid's success in tender offers, mandatory bids, competing bids, and hostile takeovers and are hence preferred by bidders in such types of transactions (Fishman, 1989). Consequently, equity is less likely to be the means of payment for this type of takeovers. Third, the incumbent owners of an unlisted target are more likely to accept cash payment, as one of their primary incentives to sell the firm may be to cash out. Therefore, equity bids are also least likely when the target firm is unlisted or closely-held. In sum, we expect that:

MP3: An equity payment is less likely in tender offers, hostile takeovers, cross-border acquisitions, and acquisitions of unlisted targets.

To test this prediction we construct four binary variables, TENDER OFFER, HOSTILE BID, CROSSBORDER BID, and LISTED TARGET, that take value of one if the takeover transaction is a tender offer, hostile bid, cross-border bid, or the acquisition of unlisted target, respectively.

3. Sample selection, data sources, and sample description

The study explores a unique dataset compiled from more than 10 different databases. We describe the sample selection procedure and data sources, and provide an overview of sample composition by sources of transaction financing and means of payment. We also explain how we construct the indices that capture the regulatory corporate governance environment by country: a shareholder rights protection index, a creditor rights protection index, a transparency index, and a minority shareholder rights protection index.

3.1 Sample selection and data sources

We build our initial sample of European acquisitions undertaken between 1993 and 2001 – during the fifth takeover wave - from the Mergers and Acquisitions Database of the Securities Data Company (SDC). The SDC data were filtered down to intra-European domestic and cross-border acquisitions with both an acquirer and a target located in Continental Europe or the UK. Deals involving firms from Central and Eastern Europe are also considered. The deals included in our sample fulfil the following requirements: (i) the takeover is completed and involves changes in control[80]; (ii) the takeover is not qualified as a going-private transaction (LBO, MBO, etc.) or a divestiture (the target firm is a subsidiary of another company); (iii) neither the bidder nor the target is a financial institution (banks, unit trusts, mutual funds and pension funds); (iv) the bidder's shares are traded on a European stock exchange (but the target firm can be either listed or in private hands); (v) the period between two consecutive bids by the same acquirer is no less than 300 trading days;[81] (vi) financial and accounting data for at least one of the participants of the transaction is available from DataStream or the Amadeus, Fame, and Reach databases; (vii) the ownership and control structures of bidding and target companies one year prior to the acquisition can be identified; and (viii) information on the sources of takeover financing is found. A total of 1,361 completed European M&As satisfy these criteria. This covers M&As involving firms incorporated in 26 European countries.

The quality of the SDC data is verified by comparing its information on the announcement date, the companies' country of origin, the transaction value, payment structure, the control stake acquired, bid completion status, and the target's attitude towards the bid with information from the news announcements stored in LexisNexis, the Financial Times, and Factiva.[82] We find that the SDC records

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[80] We require that either the transaction leads to a combination of businesses or the acquirer held less than 50% of the target company's equity prior the transaction and obtained majority control after the bid completion.

[81] The reason is that we want to avoid contamination of the periods used to estimate the systematic risk. Therefore, we excluded bids by the same acquirer within less than 300 trading days from the previous announcement (240 days estimation period starting 60 days before the event).

[82] We consider all news announcements available in English, French, German, Dutch, Italian, Spanish, Swedish, Portuguese, Russian, Czech, and Polish. For the announcements in French, German, Italian, Spanish, Swedish, and Portuguese we use the WorldLingo online translator (www.worldlingo.com).

for M&As from our sample frequently do not coincide with those of the other sources. These inconsistencies have been double checked and amended. Amendments to SDC records were made in about 36% of the deals included in our final sample.[83]

The ownership and control structure of the bidding and target firms prior to the takeover announcement is collected from a variety of sources described in Data Appendix 1 (in the end of the book). To control for dual class shares, pyramidal ownership structures, multiple control chains, and cross-holdings, all of which prevail in Continental European companies, we focus on corporate control composition rather than ownership structures. To identify the ultimate control structure of a firm, we follow the methodology presented in Barca and Becht (2001) and Faccio and Lang (2002). First, we consider only shares bearing voting rights. Second, as control depends on both direct and indirect ownership of voting equity, we accumulate the voting stakes that are directly or indirectly controlled by the same ultimate shareholder. When a target company is private, we assume that the control concentration in that firm amounts to 100%.

Three data sources are used to identify how bidders finance their takeovers. The main source is the news announcements from LexisNexis, Financial Times, and Factiva. We find that in addition to the information on the means of payment, the news announcements also frequently report the sources of financing in acquisitions. For instance, this announcement shows that a deal is entirely financed by debt:

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"PARIS (AP-Dow Jones)--French company Axa-UAP said Friday it sold its
stake in company Finextel to Sophia for FF458 million. […] Standard_&
Poor's considers that this operation, completely financed by debt,
involve a deterioration of the capitalization of Sophia."
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While extracting financing information from all news announcements surrounding the takeover bid doubtlessly enables us to identify the bidder's financing decisions directly related to takeovers,[84] most news announcements do not disclose a very detailed description of the financing arrangement. Consequently, we are able to identify how the bidding firm finances the deal (with internal funds, a debt issue, and/or an equity issue) but are unable to distinguish whether debt financing is in form of a bank credit or a loan notes issue and whether equity financing is in form of a public or private equity placement. Furthermore, when two or more financing sources were used, the exact proportion of the sources is frequently not released. We therefore partition the financing sources as follows: internal funds only, equity issues, debt issues, and a combination of equity and debt issues.[85]

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[83] The percentage refers to all M&As from our sample for which at least one deal characteristic reported in SDC does not coincide with that from the other sources. Most of the inaccuracies found in the SDC records regard the control stake acquired, the bid completion status, and the transaction value.

[84] When the bidding firm issues equity or debt in the period around the takeover announcement, the proceeds from the issue may be used to finance the firm's investment projects other than the takeover. Information extracted from the news announcements allows us to identify only those financing arrangements that were aimed at financing corporate takeovers of our interest.

[85] Since financing with internally generated funds is at least partially used in almost all M&As, we only differentiate between those transactions which are fully financed by cash (the first category) and those which also involve some sources of financing other than cash (the last three categories).

It is important to note that we focus on the ultimate financing (and payment) structure of the bid. That is, when the bidder offers the target's shareholders a choice between several payment alternatives (cash, equity, or a combination of them) which require different sources of financing, we search for the news announcements that refer to the final outcome of the offer.[86] We recognize that the final outcome of the offer is affected by the preferences of the target's shareholders and that the bidder's financing preferences ex-ante may differ from that of the final outcome. However, for the deal to succeed the bidder must be satisfied with the financial structure of the deal and hence the ultimate financing (and payment) structure of the bid must be within the range of the bidder's preferences. We also believe that the bidder may influence the target shareholder's choice by making its preferred payment alternative more attractive for them. As such, the ultimate terms of the deal are expected to be in line with the initial bidder's preferences.

While the news announcements are our main source of information on how bidders finance their takeovers, we also explore another sources of information. First, for a sub-sample of 50 UK bidding firms, we study annual reports, prospectuses, and circulation letters available through Thomson Financial Research.[87] We cross-check the takeover financing information collected from the financial reports with the one extracted from the news announcements. We find that the information from the two data sources virtually always coincides, which implies that news announcements are a reliable information source in this respect.

Second, we consult the Thomson Financial SDC New Issues database and search for public offerings of debt and equity by each bidding firm. We assume that when a security issue occurs with the aim of financing an M&A transaction it takes place in the period around the first public announcement of the takeover. In most cases, it is rather straightforward to identify the security issues (most likely) made in connection with M&As, as most of the companies from our sample very infrequently opt to issue public securities. However, the issues that took place in the period around the M&A announcement may also be aimed at financing bidder's investment projects other than the takeover. Therefore, we include financing information from the Thomson Financial SDC New Issues database only when information from the other sources (like news announcements) is not available.

3.2 Sample description

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[86] For example, the UK City Code obliges firms which make a tender offer to provide the target firm shareholders with a choice between different forms of payment: cash, equity, loan notes, or a combination of them. For more on mix and match facilities, see Goergen and Frecknall-Hughes (2007).

[87] Financial reports are available in electronic photocopy format and hence do not allow us to search for keywords, which makes data search extremely time consuming. For this reason, we first considered randomly chosen 50 companies with available financial reports in order to check for inconsistencies between the information from financial reports and that from the news announcements collected earlier. We focus on UK bidders because financial reports published in English are mainly available only for those firms. Electronic translation (with WorldLingo) of the reports published in another languages is impossible because of the photocopy format of the reports.

We partition the sources of takeover financing into four general categories: internal funds only, equity issues, debt issues, and combinations of equity and debt issues, where the last three types may also include the use of some internal funds. We further refine this classification based on the means of payment. Financing the takeover with internally generated funds or with debt implies that the acquisition is entirely paid with cash.[88] In contrast, equity (and internal funds) financing may be used in acquisitions fully paid with equity, paid with cash and equity, or entirely paid with cash.[89] A bidding firm may either directly exchange its shares for the shares of the target firm (all-equity and cash-and-equity payment), or sell its new shares on the secondary market and use the proceeds to pay for the acquisition (all-cash payment). When the bidder uses both equity and debt financing, its payment choice reduces to a combination of cash and equity and all-cash forms.[90]

Table D-1 shows the sample composition by source of transaction financing and by means of payment for each European country. A large part of M&A deals (43%) is fully financed with internally generated funds, whereas the remainder is at least partially financed by external capital (debt and equity). Internal financing is most frequently observed in Central and Eastern European countries (81% of all bids in the region), in Italy (79%), and in Spain (71%).

Equity issue is the second most frequently used source of takeover financing; it is used in 34% of the deals. The proportion of equity-financed transactions is highest in Sweden (42% of all bids in the country), Norway (38%), the UK (38%), and Finland (34%). Most of the equity-financed acquisitions involve a direct equity payment to the target shareholders (89% of the cases) rather than a cash payment funded by a seasoned equity issue (11%). The percentage of acquisitions paid entirely with cash among the deals financed with equity is highest in Scandinavia, Central and Eastern Europe, France, and the UK.

The least popular sources of financing in corporate takeovers are debt or a combination of equity and debt: they are employed in 13% and 10% of all M&A bids respectively. Acquirers incorporated in the Netherlands (29% of all bids in the country), Switzerland (23%), and the UK (17%) rely most frequently on debt financing. Combinations of equity and debt are not uncommon in Ireland (20% of all bids in the country) and the UK (15%).

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[88] Debt-financed acquisitions may also involve payment with loan notes. However, following Faccio and Masulis (2005), we assume that a payment with loan notes is equivalent to a cash payment. In the remainder of this paper, we do not differentiate between these two types of payment and refer to both as cash payments.

[89] However, this excludes payments with loan notes, as this type of acquisitions would qualify as a transaction *financed* with a combination of equity and debt.

[90] As stipulated above, we consider loan notes as cash in order to reduce the number of financing-payment combinations.

Table D-1. Sample composition by bidder's country and by sources of takeover financing and means of payment

	ALL Num	ALL %	AUS	BEL	DEN	FIN	FRA	GER	IRE	ITA	LUX	NL	NOR	POR	ESP	SWE	SWZ	UK	OTH
Total number of M&As	*1361*		*13*	*18*	*27*	*35*	*130*	*72*	*20*	*38*	*2*	*17*	*39*	*1*	*34*	*62*	*26*	*801*	*26*
% of the sample		100	1.0	1.3	2.0	2.6	9.6	5.3	1.5	2.8	0.1	1.2	2.9	0.1	2.5	4.6	1.9	58.9	1.9
							% OF M&A DEALS IN THE COUNTRY:												
Cash Financing:	**590**	**43.4**	**69.2**	**66.7**	**66.7**	**62.9**	**62.3**	**61.1**	**45.0**	**78.9**	**100**	**52.9**	**59.0**	**100**	**70.6**	**53.2**	**53.8**	**29.7**	**80.8**
▪ Cash payment	590	43.4	69.2	66.7	66.7	62.9	62.3	61.1	45.0	78.9	100	52.9	59.0	100	70.6	53.2	53.8	29.7	80.8
Debt Financing:	**173**	**12.7**	**0.0**	**0.0**	**11.1**	**0.0**	**5.4**	**8.3**	**10.0**	**7.9**	**0.0**	**29.4**	**0.0**	**0.0**	**5.9**	**1.6**	**23.1**	**17.2**	**0.0**
▪ Cash payment	173	12.7	0.0	0.0	11.1	0.0	5.4	8.3	10.0	7.9	0.0	29.4	0.0	0.0	5.9	1.6	23.1	17.2	0.0
Debt & Equity Financing:	**139**	**10.2**	**0.0**	**0.0**	**0.0**	**2.9**	**3.1**	**2.8**	**20.0**	**2.6**	**0.0**	**5.9**	**2.6**	**0.0**	**5.9**	**3.2**	**0.0**	**15.1**	**0.0**
▪ Cash payment	42	3.1	0.0	0.0	0.0	0.0	1.5	1.4	15.0	2.6	0.0	5.9	0.0	0.0	2.9	1.6	0.0	4.0	0.0
▪ Cash-and-Equity payment	97	7.1	0.0	0.0	0.0	2.9	1.5	1.4	5.0	0.0	0.0	0.0	2.6	0.0	2.9	1.6	0.0	11.1	0.0
Equity Financing:	**459**	**33.7**	**30.8**	**33.3**	**22.2**	**34.3**	**29.2**	**27.8**	**25.0**	**10.5**	**0.0**	**11.8**	**38.5**	**0.0**	**17.6**	**41.9**	**23.1**	**38.0**	**19.2**
▪ Cash payment	49	3.6	0.0	0.0	3.7	8.6	3.1	1.4	0.0	0.0	0.0	0.0	5.1	0.0	0.0	4.8	0.0	4.2	3.8
▪ Cash-and-Equity payment	162	11.9	7.7	5.6	3.7	2.9	3.8	4.2	10.0	2.6	0.0	5.9	5.1	0.0	2.9	8.1	7.7	17.0	0.0
▪ Equity payment	248	18.2	23.1	27.8	14.8	22.9	22.3	22.2	15.0	7.9	0.0	5.9	28.2	0.0	14.7	29.0	15.4	16.7	15.4
All Sources of Financing:	**1361**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
▪ Cash payment	854	62.8	69.2	66.7	81.5	71.4	72.3	72.2	70.0	89.5	100	88.2	64.1	100	79.4	61.3	76.9	55.2	84.6
▪ Cash-and-Equity payment	259	19	7.7	5.6	3.7	5.7	5.4	5.6	15.0	2.6	0.0	5.9	7.7	0.0	5.9	9.7	7.7	28.1	0.0
▪ Equity payment	248	18.2	23.1	27.8	14.8	22.9	22.3	22.2	15.0	7.9	0.0	5.9	28.2	0.0	14.7	29.0	15.4	16.7	15.4

ALL=All countries, AUS=Austria, BEL=Belgium, DEN=Denmark, FIN=Finland, FRA=France, GER=Germany, IRE=Republic of Ireland, ITA=Italy, LUX=Luxembourg, NL=The Netherlands, NOR=Norway, POR=Portugal, ESP=Spain, SWE=Sweden, SWZ=Switzerland, UK=The United Kingdom, OTH = Bulgaria, Croatia, Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia

When we make abstraction of the sources of financing and partition our sample only on the basis of the means of payment, we observe in Table D-1 that a large majority of deals (63%) are entirely cash-paid whereas the remainder is at least partially paid with equity.[91] Out of all the bids involving an equity payment, half are pure equity exchange offers. The other half are mixed offers that on average contain 53% cash and 47% equity. With exception of the UK and Ireland, acquirers prefer all-equity payments to the combination of equity and cash.

3.3 Capturing the regulatory environment

To capture the impact of corporate regulation on the financing and payment decisions, we construct a number of legal environment indices. With the help of 150 corporate lawyers from 32 European countries (see Appendix F-I), we have created a corporate governance database that comprises the main aspects and changes in corporate governance regulation in all European countries (including Central and Eastern Europe) over the last 15 years. For each country, we quantify the regulation mitigating the conflicts of interests between the main corporate constituencies: agency problems between management and shareholders, between majority and minority shareholders, and between creditors and shareholders. We also quantify regulatory provisions aimed at improving the transparency of corporate information. The following four indices are constructed.

The shareholder rights protection index (SHAREHDR PRT) is based on shareholders' ability to mitigate managerial opportunistic behaviour. The index increases with the number and quality of legal provisions that provide shareholders with effective power to appoint and dismiss the board of directors and to control most of the important corporate decisions (like equity issues or takeovers). We also include into this index the regulatory provisions aimed at ensuring that the board of directors acts as an independent body operating on behalf of all shareholders to monitor top management. A higher index score represents a higher likelihood that management acts in the interest of shareholders. While the constituting elements of the index and their coding are given in Appendix D-II, Figure D-1 reports the mean values of the shareholder rights protection index by legal origin for every fifth year over the period 1990-2005.

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[91] This percentage is lower than the 80% reported for European all-cash M&As in Faccio and Masulis (2005). The difference may be driven by the fact that we exclude from our sample the divestitures (acquisitions of subsidiaries) and the cross-border acquisitions of US targets. These types of takeovers represent a substantial fraction of Faccio and Masulis' sample and are most likely pure cash offers.
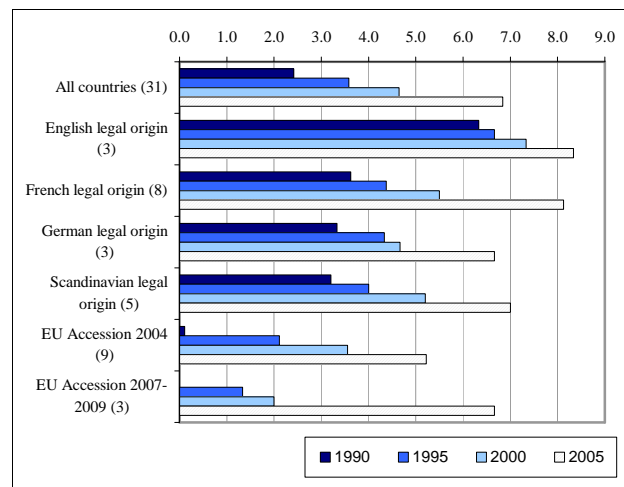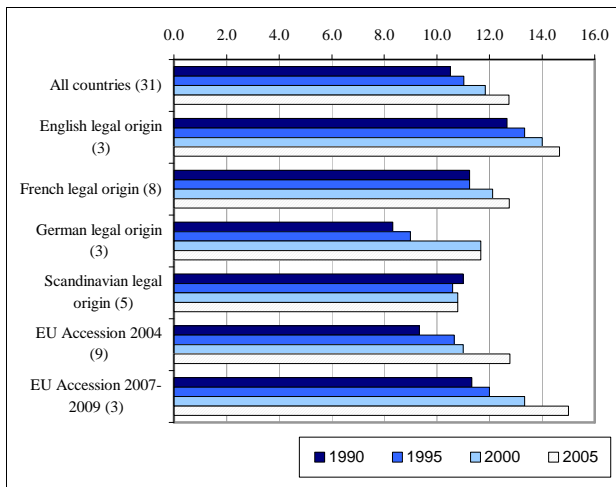
Figure D-1. Shareholder rights protection index by legal origin

Figure D-2. Transparency index by legal origin

Notes: The countries are categorized based on their legal origin and the EU enlargement process. The countries belong to these types: *English legal origin* (Republic of Ireland, UK, and US), *German legal origin* (Austria, Germany, Switzerland,), *French legal origin* (Belgium, France, Greece, Italy, Luxembourg, Netherlands, Portugal, and Spain), *Scandinavian legal origin* (Denmark, Finland, Iceland, Norway, and Sweden), *2004 EU Accession* (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia, and Slovak Republic), *2007-09 likely EU Accession* (Bulgaria, Croatia, and Romania). The X-axis shows the mean value of each index.

The transparency index (TRANSPARANCY) is based on the quality of information available about the company and the management. This index reflects the degree to which the market is informed about corporate policies and contracts directly related to the management and the frequency with which this information is released. More specifically, we quantify the extent to which information is released on the managerial compensation packages (on aggregate or individual basis, if at all) and the requirement to disclose any transactions between management and company (e.g. consulting contracts, interest-free loans). The transparency index is also higher when a comply-or-explain principle is enshrined in corporate law or is required by the stock exchange regulation. A higher index score reflects more transparency (see Appendix D-II). The transparency index by legal origin and its evolution over time is reported in Figure D-2.

The creditors protection index (CREDITOR PRT) hinges on the regulatory provisions that allow creditors to force repayment more easily, to take possession of the collateral, or even to gain control over the firm in case of financial distress. In creating the creditors rights index, we closely follow the approach of LaPorta et al. (1998) and investigate the regulation related to the violation of debt covenants (deviations from the debtor priority ranking in case of bankruptcy), the possibility of debtors to impose restrictions on borrowers (e.g. limitations on filing for reorganization/liquidation), and the creditors rights in financially distressed firms (e.g., automatic stay on assets). The index also captures the difference between creditor-oriented and debtor-oriented bankruptcy codes: we upgrade the creditor rights index for a country with a pure

liquidation code by one, while leaving the index unchanged for a country with a debtor-oriented code.[92] The reason is that a bankruptcy code that facilitates reorganization focuses on corporate survival, usually at the expense of the (more senior) creditors. A higher index score reflects stronger creditor rights and the details of the creditor rights index are reported in Appendix D-II. Figure D-3 shows the creditor rights protection index by legal origin and its evolution over time.
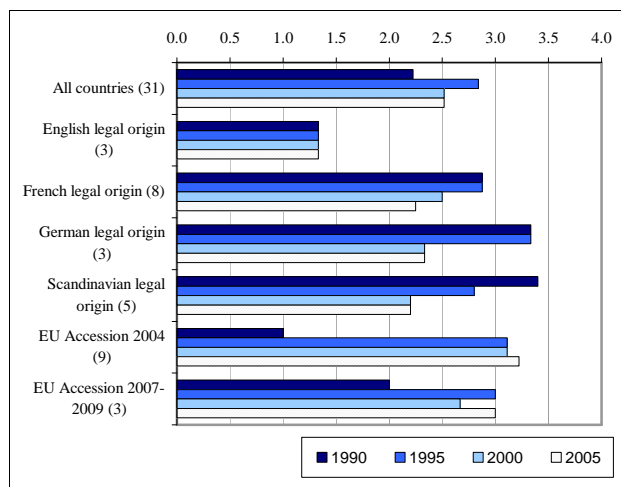

Figure D-3. Creditor rights protection index protection index by legal origin
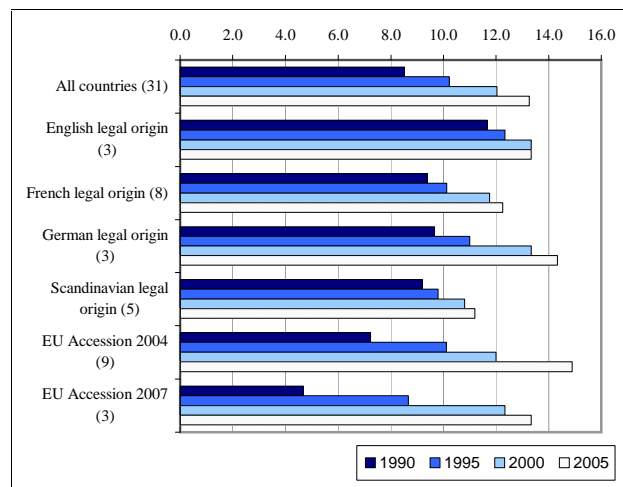
Figure D-4. Minority shareholders rights by legal origin

Note: For the classification of legal origins see notes to figures D-1 and D-2. The X-axis shows the mean value of the index.

The minority shareholder protection index (MINORITY PRT) hinges on the regulatory provisions increasing the relative power of the minority shareholders in the presence of strong majority shareholders. In a firm with concentrated control structure, it is possible that the dominant shareholder influences managerial decisions to his own benefit which may lead to the expropriation of the minority shareholders' rights. To construct the index, we quantify the regulatory provisions on the minority shareholder rights (board representation, minority claims, extraordinary general meetings, blocking minorities), the one-share-one-vote principle (dual class shares, voting caps, break-through rule, equal treatment principle), ownership transparency and the relative decision power in case of a takeover threat. A higher index score signifies that minority shareholders' interests are better upheld. The constituents of the index and their coding are given in Appendix D-II, while Figure D-4 reports the minority rights protection index by legal origin.

LaPorta et al. (1998) argue that a system of strong legal enforcement may substitute for weaker regulation, as well-functioning courts can effectively resolve disputes between corporate

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[92] Chapter 11 in the US is the prototype of a debtor-oriented code. In the 1990s, many bankruptcy codes have been reorganized and now frequently include two tracks: a debtor-oriented part (e.g. administration in the UK) and a pure liquidation code. We classify such bankruptcy codes as debtor-oriented.

constituencies. Conversely, a law designed to uphold the rights of e.g. minority shareholders may be eroded in case the judiciary does not function effectively. To address such problems, we multiply the above indices by an index capturing the quality of law enforcement. We use two proxies for the law enforcement index: the rule of law index (RULE OF LAW) and the corruption index (CORRUPT), developed by the World Bank[93]. The rule of law index measures the extent to which agents have confidence in and abide by the rules of society, and these include the effectiveness and predictability of the judiciary and the enforceability of contracts. The corruption index measures the extent to which one can exercise public power for private gain. Corruption is usually associated with a lack of respect for the rules of society, and hence represents a failure of the judicial system to enforce the law. A higher score of each index indicates that national judicial systems are more effective.[94]

4. Methodology

4.1 Estimating the valuation effect of the bidder's financing choice

An M&A announcement brings new information to the market which allows investors to update their expectations about the firm's prospects are updated and adjust share prices accordingly. Relevant takeover information usually comprises various takeover characteristics (the form of the bid, the means of payment, the target firm's attitude towards the bid, industry-relatedness, geographical scope etc.) as well as the sources of financing. The market combines these pieces of information into a signal about the quality of the deal and the bidding and target firms. As such, the takeover announcement effects consists of an appraisal of the takeover synergies based on the characteristics of the deal and a re-assessment of the bidder's value based on the signal about the type of financial resources used in the deal.

To capture the valuation effect of the bidder's financing choice, we compute the takeover announcement effect on the bidder's share price and compare it across deals financed by different sources of capital. Since the valuation effect may also be driven by takeover characteristics, which vary across deals with different financial structure, we complement univariate comparison with the analysis of multivariate OLS regressions to explore the true relationship between the sources of takeover transaction and the market re-assessment of the bidder's share price at the takeover announcement.

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[93] More information on the indices is available at http://www.worldbank.org/wbi/governance/
[94] The World Bank indices on legal enforcement and corruption are available starting since 1996. For years prior to 1996, we assume that the quality of law enforcement environment was no better than that of 1996. Therefore, the missing values of the rule of law and corruption indices for years 1993-1995 are proxied by the value of the corresponding indices in 1996.

The market reaction to the takeover announcement is computed as a sum of daily abnormal returns realized in the period starting 60 days prior and ending 60 days subsequent to the takeover announcement.[95] We also consider alternative event windows within the [-60, +60] interval. Daily abnormal returns are computed as the difference between realized and market model benchmark returns. The market model uses the MSCI-Europe index and the parameters are estimated over 240 days starting 300 days prior to the acquisition announcement.[96] To test for significance of the estimated abnormal returns we use the non-parametric Corrado test (Corrado, 1989).

4.2 Empirical models of the financing(-payment) choice

To examine the factors driving the bidder's choice of transaction financing and payment method, we employ multinomial logit and nested logit models. The multinomial logit model assumes that the bidder chooses a source of financing from four mutually exclusive (independent) alternatives: cash, debt, debt-and-equity, and equity. The nested logit model extends the multinomial logit framework by allowing the bidder to make its financing decision conditional on the preferred payment method.

4.2.1 Multinomial logit model of the financing choice

In the multinomial logit framework, we assume that each financing choice j corresponds to the NPV - net of all direct and indirect costs associated with the use of a particular means of financing - of the bidding firm $V_j(x)$, where x is a vector of exogenous characteristics of the takeover and firms involved, and j denotes one of the four financing alternatives: (i) cash financing (cash-paid/cash-financed deals); (ii) debt financing (cash-paid/debt-financed deals); (iii) debt-and-equity financing (cash-paid/debt-and-equity financed and mixed-paid/debt-and-equity-financed deals); and (iv) equity financing (equity-paid/equity-financed, mixed-paid/cash-and-equity-financed, and cash-paid/equity-financed deals). The bidder chooses alternative j if $V_j(x)$ is the maximum of the four possible values. Hence the probability of the choice j is:

$Pr_j = Prob\ (V_j > V_k)$ for all other $k \neq j$.

The model assumes that the (unobserved) firm value $V_j(x)$ is a linear function of the observed relevant characteristics of bidder and target and of the bid itself plus random noise. A key assumption of the multinomial logit model is that the random noise in the value function is independently and identically distributed (*iid*). This assumption implies that the choices between any two alternatives are independent of the others, i.e. that the independence of irrelevant

alternatives (IIA) property is upheld.[97] To test for the validity of the IIA assumption with respect to the bidder's financing decision-making process, we apply the Hausman's specification test (Hausman and McFadden, 1984).

The multinomial logit model includes three binary logit models that are estimated simultaneously. Each binary logit predicts a probability of choosing one of the first three alternatives relative to the probability of opting for the benchmark alternative (which is equity financing). The vector of explanatory variables x is the same across all three binary logits. For each alternative j, the log-odds ratio is specified as follows:

$$\ln\left[\frac{\Pr_j}{\Pr_0}\right] = x'(\beta_j - \beta_0) = x'\beta_j$$

$\Pr_j$ and $\Pr_0$ denote the probabilities that the bidder chooses alternative j and alternative 0 respectively; x is a vector of exogenous, observable characteristics of the bidder, target, and of the bid; β_j is a vector of unknown regression parameters corresponding to the choice of the alternative j. We set the coefficients corresponding to the equity-financing alternative to zero (that is, $\beta_0 = 0$). The coefficients from each logit model represent the impact of an increase in a specific variable on the relative log-odds ratio.

4.2.2 Nested logit model of the sequential payment-financing choice

Since the financing and payment decisions of the bidder can be modelled as a 2-dimensional choice set and the choice of financing is likely to be conditioned by the payment method, we investigate the robustness of the multinomial logit model's conclusions within a nested logit framework.[98] To specify the nested logit model, we partition the bidder's choice set into two branches: by payment method and by sources of transaction financing (as illustrated in Figure D-5).

In these models, we assume that when the bidder makes a financing choice, he first considers which means of payment it should offer in the takeover bid. Only subsequently, he decides on the sources of financing. Thus, the model estimates the unconditional probability of opting for a specific payment method, and the conditional probability of choosing a specific takeover-financing source (conditional on the chosen means of payment). The unconditional probability of the financing/payment choice j which includes payment method P and funding source f is modelled as $Pr_j = Pr_{fP} = Pr_P \, Pr_{f|P}$. In this nested model, the IIA assumption is maintained for the sources of financing within the same payment method.

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[97] That is, if one of the alternatives is removed from the model, the other alternatives will have a proportional increase in the probability of being chosen.

[98] The advantage of the nested logit model over the multinomial logit is that the former is derived when the random noise in the value function has a generalized extreme value (*GEV*) distribution, which allows partial relaxation of the IIA property (McFadden, 1981).
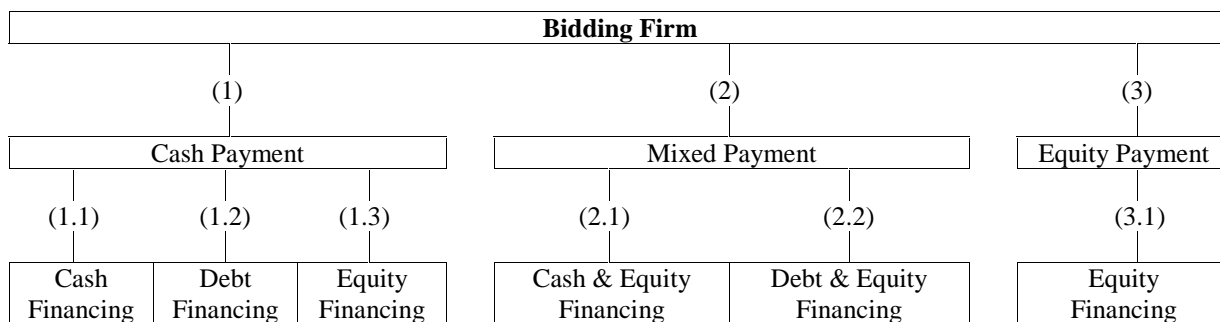
```
                          Bidding Firm
         (1)                    (2)                    (3)
     Cash Payment          Mixed Payment          Equity Payment
   (1.1)   (1.2)   (1.3)    (2.1)      (2.2)          (3.1)
   Cash    Debt    Equity   Cash &     Debt &         Equity
Financing Financing Financing Equity   Equity       Financing
                            Financing  Financing
```

Figure D-5. Specification of the payment-financing nested logit model

       The nested logit model is estimated using the full information maximum likelihood estimation method. As is the case for the multinomial logit model, the estimated coefficients in the nested logit model are not directly interpretable with respect to the probability that a particular alternative is chosen. The coefficients from the model represent the increases (decreases) in the log-odds ratio (relative to the benchmark case).

5. Results

5.1 Valuation effects of the bidder's financing decision

       In this section, we investigate the valuation effect of the financing choice in corporate takeovers. Figures D-6 – D-9 illustrate the cumulative average abnormal returns (CAARs) for bidding firms over a six-month period starting 60 days prior to and ending 60 days after the initial bid. Figure D-6 shows the bidder CAARs by means of payment. The evidence is consistent with the prior empirical findings (see e.g. Moeller et al, 2004; Andrade et al., 2001; Franks et al., 1991): over the six-month window centred around the takeover bid day, the short term wealth effects to the bidder's shareholders are significantly negative. In addition, bids involving at least some equity payment yield the lowest returns.[99] However, Figure D-6 indicates that the underperformance of the all-equity offers is largely due to a post-announcement share price correction effect. Prior to the bid, firms that offer equity experience a significant share price run-up, which exceeds that of firms offering cash.

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[99] Tables with the mean values of the bidder's CARs and significance tests are available upon request.
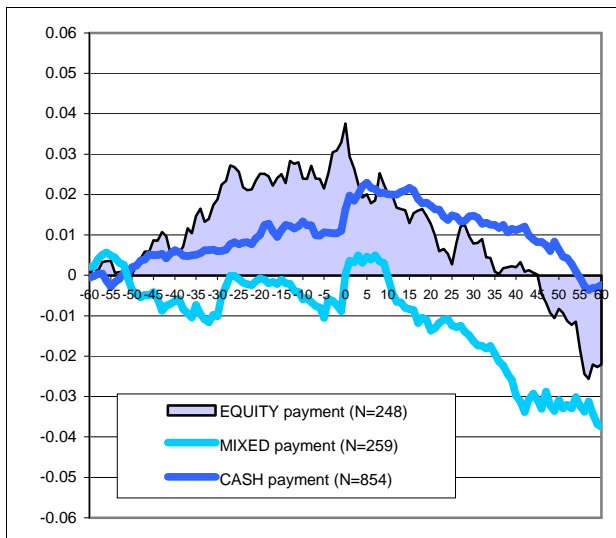
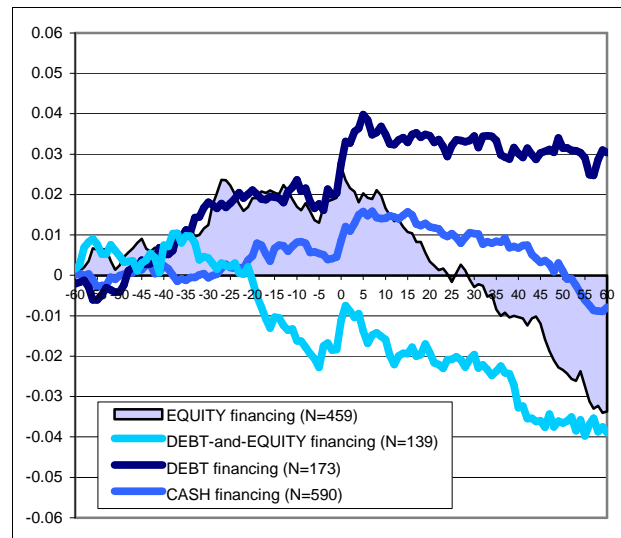*Figure D-6. Bidder CAARs by means of payment*

Figure D-7. Bidder CAARs by sources of bid financing

When we partition our sample of European M&As by sources of transaction financing (see Figure D-7), we observe that a negative price revision follows the announcement of any corporate takeover that involves equity financing. Remarkably, the only type of acquisition that does not have a negative price correction but is expected to create a substantial value (of about 3%) to the bidding firms over the 6-months period is a debt-financed acquisition. This significantly exceeds the negative returns of M&As financed by equity and cash (-3.3% and -0.8% respectively). Overall, the evidence suggests that, in addition to the means of payment, sources of transaction financing are an important determinant of market reaction to the takeover announcement.

Figures D-8 and D-9 show that investors are able to differentiate between information about the payment method and sources of takeover financing and that they take into account both these takeover characteristics. Figure D-8 reveals considerable differences in the market reactions to all-cash acquisitions financed by cash, by debt, or by equity. The CAARs spanning the 3-month price run-up is highest for the bidders that issue equity (2.6%), followed by those that issue debt (2.0%). The corresponding effect for bidders using internal cash funds for takeover financing is significantly lower and amounts to merely 0.5%. Strikingly, bidders that decide to issue equity experience a marked increase in their share price of 4.1% over the [-60, -20] window and a downward correction by about 1.5% afterwards.
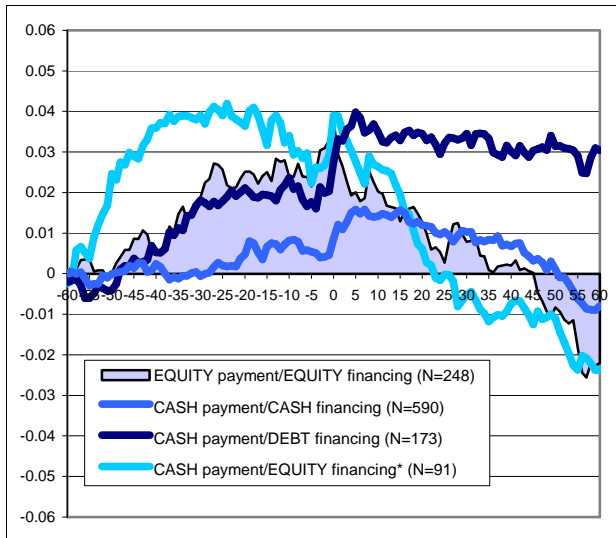
Figure D-8 legend:
EQUITY payment/EQUITY financing (N=248)
CASH payment/CASH financing (N=590)
CASH payment/DEBT financing (N=173)
CASH payment/EQUITY financing* (N=91)

Figure D-9 legend:
EQUITY payment/EQUITY financing (N=248)
MIXED payment/DEBT financing (N=97)
MIXED payment/CASH financing (N=162)

Figure D-8. Bidder CAARs in cash-paid acquisitions by sources of financing[100]
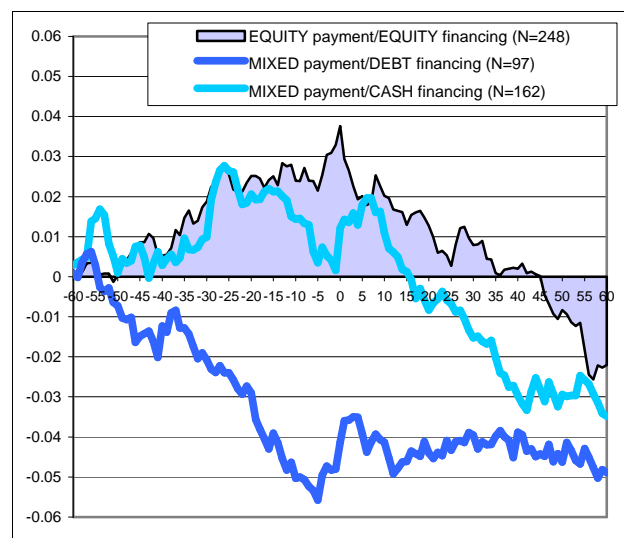
Figure D-9. Bidder CAARs in mixed-paid acquisitions by sources of financing of the cash component

The difference in the market's assessment of the bidder's financing choice in all-cash offers even augments over the post-event period: the negative price correction for bidding firms is larger for equity-financed bids than for cash-financed ones, whereas it is insignificant for the bidders that use debt as a means of takeover financing (Figure D-8). Notably, the pattern of the bidder's abnormal returns in the cash-paid but equity-financed takeovers is very similar to that of the returns in the equity-paid deals. Whereas an involvement of debt financing in acquisitions fully paid with cash is associated with significant outperformance, the reverse is observed is acquisitions paid with a combination of equity and cash (see Figure D-9). Nonetheless, there are consistent similarities in the CAARs patterns between cash-paid and mixed-paid takeovers when similar sources of financing are involved. Thus, both types of bids financed by a combination of cash and equity are preceded by a positive share price run-up and followed by a significant share price decline. Also, the announcement of debt financing in all-cash bids and in the cash component of mixed takeovers is associated with an insignificant share price decline over the three-months post-event period.

To confirm the relationship between sources of transaction financing and the anticipated wealth effect, we perform OLS regression analyses of the bidder CAARs. In separate regressions, we investigate the factors that affect the cumulative abnormal returns (CARs) realized prior to the bid over the period [-60, -2], at the bid announcement (over the 3 days centred around the event day), and subsequent to the bid over the period [+2, +60]. In order to capture the valuation effect of the bidder's financing decision when the firm employs the same mode of payment, we also run

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[100] We combine equity- and debt-and-equity-financed all-cash offers into one category CASH payment/EQUITY financing, as their CAARs exhibit very similar patterns.

regressions for the subsamples of all-cash and mixed offers. The determinants of the anticipated wealth creation for bidding firms are reported in Table D-2. The results confirm that the sources of transaction financing are important determinants of the bidder's share price reaction to the takeover announcement. Whereas mixed-paid/debt-financed acquisitions significantly underperform the other types of deals over a 3-month period prior to the bid (the difference is -6.72%), cash-paid/equity-financed acquisitions underperform the other deals over the 3-months period subsequent to the bid (the difference is -6.04%). Table D-2 also confirms that, in contrast to cash and equity, debt financing is associated with significantly higher post-announcement returns.

The announcement and post-announcement valuation effects increase with the bidder's share price performance prior to the takeover announcement. Consistent with a behavioural finance explanation, the positive relationship between run-up and mark-up premiums may be a result of financial market buoyancy: investors tend to overestimate the potential takeover gains in takeovers launched by the outperforming bidders. The regression results also show that investors are wary when a bidding firm with a high cash flow makes an all-cash takeover bid. There are then legitimate doubts about the true motive for the takeover: cash surpluses are likely to be used for managerial empire building instead of being distributed to shareholders in form of dividends or share repurchases (Jensen, 1986).

5.2 The determinants of the bidder financing decision

The previous section confirms the prominent view in the corporate finance literature that equity issues reduce firm value, also in the context of mergers and acquisitions. We now turn to an analysis of why bidding firms opt for equity financing in spite of the negative consequences for corporate value.

5.2.1 Univariate comparison

Table D-3 exhibits the mean values of the variables which we expect to affect the bidder's choice of financing sources in corporate takeovers (see Section 2). The table indicates that bidder characteristics vary substantially across acquisitions with different sources of financing. To test the null hypothesis that there are no significant differences in the mean values across acquisitions involving different sources of takeover financing and means of payment, an F-test (for level variables) and a Wald-test (for binary variables) and the corresponding F- and χ^2-statistics are reported.

Table D-2. The valuation effect of financing choice

This table reports the results of the OLS regression of the bidder CARs for three different event windows and for the subsamples of all-cash and mixed offers. Variable definitions are given in Appendix D-I. For each variable, we list the regression coefficient normalized by their standard deviation (except for binary variables). As such, each number in the table indicates incremental change in the analysed CARs (%) associated with a particular takeover characteristic (binary variables) or with a one-standard deviation change in the reference variable (level variables). Effects that are found statistically significant in the regression analysis are denoted in bold. Statistical significance is indicated by the heteroskedasticity-consistent p-value. [a]/[b]/[c] stands for statistical significance at the 1%/5%/10% level, respectively.

	WHOLE SAMPLE						CASH PAYMENT						MIXED PAYMENT					
	CAR [-60, -2]		CAR [-1, +1]		CAR [+2, +60]		CAR [-60, -2]		CAR [-1, +1]		CAR [+2, +60]		CAR [-60, -2]		CAR [-1, +1]		CAR [+2, +60]	
	Effect	p-val	Effect	p-val	Effect	p-val	Effect	p-val	Effect	p-val	Effect	p-val	Effect	p-val	Effect	p-val	Effect	p-val
EQUITY PMT	**1.56%**	.042[b]	-0.69%	.257[c]	-3.34%	.137												
CASH PMT - EQTY FIN	2.03%	.603	0.88%	.305	**-6.04%**	.067[c]	3.55%	.358	0.42%	.611	**-7.85%**	.022[b]						
CASH PMT - DEBT FIN	1.06%	.731	1.10%	.163	3.02%	.257	2.22%	.481	0.85%	.202	1.73%	.135						
MIX PMT - DEBT FIN	**-6.72%**	.015[b]	0.89%	.275	1.82%	.552							**-7.75%**	.004[a]	0.96%	.362	5.46%	.160
CROSSBORDER BID	-2.97%	.272	-1.12%	.136	-2.61%	.166	-1.02%	.669	-0.41%	.415	-3.40%	.107	2.80%	.670	-2.00%	.150	-1.10%	.862
HOSTILE BID	**8.74%**	.004[a]	**-1.64%**	.034[b]	-3.98%	.322	**3.33%**	.031[b]	-0.83%	.458	-3.44%	.465	**15.20%**	.037[b]	**-4.31%**	.095[c]	-6.35%	.430
TENDER OFFER	2.22%	.608	**-2.67%**	.005[a]	-2.65%	.337	-3.63%	.346	-0.59%	.467	0.41%	.906	12.50%	.212	**-3.89%**	.067[c]	-0.64%	.941
LISTED TARGET	-1.27%	.759	0.36%	.650	1.03%	.773	1.32%	.705	0.38%	.607	3.07%	.354	-3.22%	.747	-0.05%	.980	3.76%	.547
INTRA-IND BID	-1.39%	.181	-0.25%	.520	0.57%	.794	-2.44%	.304	-0.42%	.397	1.94%	.351	-0.21%	.968	-0.28%	.767	-1.28%	.704
1997-1999	**1.61%**	.057[c]	**1.61%**	.051[c]	**-4.89%**	.010[a]	**4.71%**	.011[b]	**0.98%**	.082[c]	-3.48%	.140	-1.31%	.794	1.04%	.325	**-4.33%**	.014[b]
2000-2001	**4.49%**	.054[c]	-0.09%	.919	**-13.97%**	.000[a]	3.37%	.268	0.87%	.177	**-9.57%**	.000[a]	5.83%	.125	-0.31%	.802	**-15.78%**	.000[a]
CFLOW/TA	**-3.92%**	.002[a]	-0.04%	.913	**2.35%**	.035[b]	**-8.42%**	.000[a]	0.41%	.223	**2.20%**	.087[c]	0.44%	.873	0.22%	.811	2.37%	.347
Q-RATIO	0.38%	.751	0.06%	.847	**-4.94%**	.000[a]	1.68%	.265	-0.13%	.725	**-6.32%**	.000[a]	2.48%	.301	-0.17%	.876	**-5.79%**	.010[a]
LEVERAGE	**-2.18%**	.081[c]	0.37%	.273	1.27%	.242	-0.92%	.527	-0.06%	.846	-0.68	.549	**-5.08%**	.059[c]	**1.68%**	.063[c]	2.94%	.235
TOEHOLD	-0.51%	.677	0.24%	.474	1.67%	.144	-0.07%	.961	**0.50%**	.095[c]	**2.27%**	.039[b]	-1.19%	.533	-0.34%	.586	1.97%	.216
RUNUP			**1.12%**	.000[a]	**2.55%**	.000[a]			**1.35%**	.000[a]	**1.34%**	.000[a]			**1.78%**	.093[c]	**3.70%**	.000[a]
N obs.	1361		1361		1361		854		854		854		259		259		259	
Adjusted-R^2	3.85		6.69		27.09		7.95		5.22		23.75		11.43		10.47		30.97	
F-value	2.59	.000[a]	7.33	.000[a]	33.84	.000[a]	3.28	.000[a]	4.14	.000[a]	18.78	.000[a]	2.85	.001[a]	5.02	.000[a]	16.43	.000[a]

CC1. Pecking Order and Market Timing:

In line with our expectations, Panel A of Table D-3 reports that cash-rich bidders opt to finance their M&A transactions entirely with cash (see column 2). In contrast, firms with a shortfall of internally generated funds use external sources of financing: a debt issue (column 3), a combination of debt and equity (column 4) or a seasoned equity issue (column 8). Bidders in acquisitions entirely paid and financed with equity exhibit the weakest potential to finance their acquisition payment by internal sources of cash (column 11).

Panel A also shows that bidders using external financing have a higher percentage of tangible assets than those relying on internal financing, although the difference is not statistically significant (column 13). Among the companies raising external capital, equity issuers tend to have lower debt capacity, as measured by financial leverage (compare column 3 to columns 4 and 8). Furthermore, equity financing is preceded by a significant share price run-ups. In addition, the use of equity financing is least frequently observed in the period of the stock market recession (2000-01), whereas debt financing is less common during stock market recovery (1993-96).

CC2. Regulatory Environment:

Panel A of Table D-3 examines whether specific sources of transaction financing are chosen in different regulatory environments. When shareholder protection is strong, bidders are more likely to use external sources of financing (compare column 2 to columns 3, 4, and 8). Creditor protection and protection of minority shareholder rights are positively related to the choice of debt (and equity) issues as a means of takeover financing (see columns 3 and 4). In addition, funding by external sources is more likely if the bidder is from a country with better corporate transparency standards. Bidders rely on internally generated funds as a means of transaction financing in countries with the weakest creditor and shareholder protection and the lowest corporate transparency standards (see column 2).

AG1. Agency Cost of Equity and Takeover Threats:

There is evidence that managers of widely-held companies (firms without a blockholder owning at least 20% of the voting rights) are more likely to use equity rather than cash financing. Panel B of Table D-3 indicates that more than a half of all acquisitions that are entirely financed by equity (53% of cases) are made by widely-held bidding firms (column 8) and that widely-held bidding firms are involved in merely a one-third of all-cash financed M&As (column 2).

Table D-3. Average values of the determinants of choice of sources of financing

This table reports the mean values of the variables expected to affect the bidder's choice of financing sources. Columns (7) and (12) report an F-test (for level variables) and a Wald test (for binary variables) for the difference in means across acquisitions involving different means of payment (but the same sources of transaction financing). Columns (13), (14), and (15) report an F-test (for level variables) and a Wald test (for binary variables) for the difference in means across acquisitions involving different sources of financing (but the same means of payment). Superscripts [a]/[b]/[c] correspond to the statistical significance at the 1%/5%/10% level, respectively. To assess the significance of the estimated run-up premium, RUNUP (%), we perform a non-parametric test (Corrado, 1989). Where the estimated premium is statistically significant at the 1%/5%/10% level, we indicate this with [z]/[y]/[x], respectively.

Variables	Whole Sample	Cash Fin. Cash Paymt	Debt Fin. Cash Paymt	Debt & Equity Financed All Paymt	Cash Paymt	Mix Paymt	F-stat (p-val) H_0: (5)=(6)	Equity Financed All Paymt	Cash Paymt	Mix Paymt	Equity Paymt	F-stat (p-val) H_0: (9)=(10)=(11)	All Payments F-stat (p-val) H_0: (2)=(3)=(4)=(8)	Cash Payments F-stat (p-val) H_0: (2)=(3)=(5)=(9)	Mixed Payments F-stat (p-val) H_0: (6)=(10)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)

PANEL A: COST OF CAPITAL CONSIDERATIONS (CC)

CC1. Pecking Order and Market Timing:

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
CFLOW/TRANSVAL	0.96	2.71	0.21	0.26	0.21	0.27	1.2 (.306)	0.32	0.52	0.81	0.14	4.9[a] (.008)	6.7[a] (.000)	12.4[a] (.000)	8.5[a] (.000)
CHLDG/TRANSVAL	0.80	2.81	0.59	0.17	0.09	0.20	1.9 (.163)	0.36	0.67	0.61	0.16	5.2[a] (.006)	7.3[a] (.000)	11.7[a] (.000)	6.5[a] (.000)
COLLATERAL	0.33	0.32	0.34	0.34	0.43	0.31	0.6 (.572)	0.34	0.35	0.32	0.35	0.8 (.452)	0.8 (.492)	3.5[b] (.015)	1.3 (.282)
FIN LEVERAGE	0.34	0.26	0.32	0.43	0.47	0.42	0.9 (.422)	0.40	0.34	0.35	0.46	3.7[b] (.028)	23.2[a] (.000)	8.6[a] (.000)	4.5[a] (.005)
RUNUP (%)	0.92	0.34	1.96[y]	2.01[y]	5.41[z]	-2.69[z]	10.6[a] (.000)	2.21[z]	2.72[z]	1.82[z]	2.33[z]	0.3 (.733)	3.4[b] (.017)	7.2[a] (.000)	9.8[a] (.000)
1993-1996	0.34	0.34	0.25	0.34	0.40	0.31	$\chi^2=$ 1.9 (.382)	0.39	0.43	0.41	0.37	$\chi^2=$ 2.3 (.319)	$\chi^2=$ 10.9[b] (.012)	$\chi^2=$ 12.2[a] (.007)	$\chi^2=$ 5.9 (.115)
1997-1999	0.41	0.43	0.45	0.40	0.40	0.40	$\chi^2=$ 3.6 (.167)	0.39	0.45	0.38	0.39	$\chi^2=$ 3.3 (.192)	$\chi^2=$ 1.6 (.652)	$\chi^2=$ 1.7 (.630)	$\chi^2=$ 5.8 (.118)
2000-2001	0.24	0.23	0.30	0.26	0.20	0.29	$\chi^2=$ 2.2 (.331)	0.22	0.12	0.21	0.24	$\chi^2=$ 4.7[c] (.095)	$\chi^2=$ 6.1 (.104)	$\chi^2=$ 8.8[b] (.032)	$\chi^2=$ 5.5 (.141)

CC2. Regulatory environment:

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
SH PRT x RULAW	65.1	58.3	73.7	73.7	72.6	77.0	8.1[a] (.000)	72.4	67.9	74.2	72.8	32.9[a] (.000)	65.1[a] (.000)	41.3[a] (.000)	1.0 (.378)
CR PRT x RULAW	12.2	11.5	13.1	13.0	12.6	13.1	2.2 (.120)	12.9	12.4	13.0	13.1	6.7[a] (.001)	27.7[a] (.000)	16.7[a] (.000)	0.2 (.909)
TRANSP x RULAW	29.4	26.4	33.5	33.5	32.5	35.4	5.1[a] (.007)	30.2	30.0	33.2	28.4	21.7[a] (.000)	54.0[a] (.000)	34.8[a] (.000)	2.3[c] (.079)
MIN PRT x RULAW	61.7	60.2	64.2	64.2	61.0	65.4	3.2[b] (.043)	60.5	59.1	64.0	58.3	30.7[a] (.000)	54.1[a] (.000)	34.0[a] (.000)	1.6 (.181)

PANEL B: AGENCY PROBLEMS BETWEEN CLAIMANTS (AG)

AG1. Agency Cost of Equity and Takeover Threat:

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
CONTROL (%)	29.9	35.3	23.6	18.6	17.4	19.5	0.7 (.494)	27.1	30.0	23.6	28.4	1.9 (.158)	12.9[a] (.000)	5.2[a] (.002)	0.8 (.489)
BLOCKHLDR>20	0.55	0.67	0.39	0.32	0.23	0.34	$\chi^2=$ 1.5 (.463)	0.47	0.67	0.36	0.52	$\chi^2=$ 6.9[b] (.032)	$\chi^2=$ 40.7[a] (.000)	$\chi^2=$ 24.5[a] (.000)	$\chi^2=$ 1.3 (.737)
TO THREAT	0.06	0.05	0.02	0.05	0.08	0.04	1.0 (.369)	0.10	0.06	0.10	0.11	0.1 (.872)	4.2[a] (.006)	1.3 (.292)	0.9 (.406)

Variables	Whole Sample	Cash Fin. Cash Paymt	Debt Fin. Cash Paymt	Debt & Equity Financed				Equity Financed					All Payments	Cash Payments	Mixed Payments
				All Paymt	Cash Paymt	Mix Paymt	F-stat (p-val) H0: (5)=(6)	All Paymt	Cash Paymt	Mix Paymt	Equity Paymt	F-stat (p-val) H0: (9)=(10)=(11)	F-stat (p-val) H0: (2)=(3)=(4)=(8)	F-stat (p-val) H0: (2)=(3)=(5)=(9)	F-stat (p-val) H0: (6)=(10)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
AG2. Debt Overhang:															
Q-RATIO	1.81	1.61	2.00	1.63	1.64	1.57	0.2 (.652)	2.28	2.65	2.54	2.01	0.9 (.407)	4.2[a] (.005)	2.9[b] (.034)	5.5[b] (.020)
CAPX 3YGR (%)	8.5	8.5	4.4	9.4	3.8	14.4	7.2[a] (.008)	26.7	33.1	19.5	34.7	3.8[b] (.023)	6.7[a] (.000)	8.5[a] (.000)	0.4 (.766)
SALES 3YGR (%)	24.2	21.8	24.3	23.5	20.2	25.6	4.1[b] (.045)	31.6	25.2	39.3	27.3	2.6[c] (.075)	5.8[a] (.000)	0.6 (.650)	4.6[b] (.033)
TA 3YGR (%)	26.8	22.2	20.7	24.7	30.9	18.0	6.6[b] (.011)	39.4	34.3	38.6	49.4	3.8[b] (.023)	5.5[a] (.001)	6.2[a] (.000)	12.0[a] (.000)
AG3. Agency Cost of Debt and Financial Flexibility:															
BETA	0.64	0.64	0.65	0.54	0.39	0.60	5.8[b] (.017)	0.66	0.69	0.58	0.73	5.1[a] (.006)	1.22 (.296)	4.2[a] (.006)	0.0 (.991)
AGE	16.1	23.5	20.1	10.2	8.4	10.7	0.9 (.344)	7.4	5.3	18.0	3.6	9.4[a] (.000)	7.6[a] (.000)	11.5[a] (.000)	2.3 (.130)

PANEL C: MEANS OF PAYMENT CONSIDERATIONS (MP)

Variables	Whole Sample	Cash Fin. Cash Paymt	Debt Fin. Cash Paymt	Debt & Equity Financed				Equity Financed					All Payments	Cash Payments	Mixed Payments
MP1. Risk Sharing:															
(B) MVAL (m US$)	2,249	1,952	4,400	871	1,172	761	12.5[a] (.000)	2,788	1,385	513	3,913	9.7[a] (.000)	17.8[a] (.000)	4.7[a] (.003)	1.6 (.187)
TRANSVAL (m US$)	603	114	433	732	1,106	568	8.4[a] (.000)	1,236	139	193	2,290	11.1[a] (.000)	13.3[a] (.000)	7.2[a] (.000)	5.2[b] (.023)
RELVAL (%)	19.5	11.3	17.7	31.3	31.3	31.3	1.5 (.225)	23.3	18.8	19.9	32.9	22.1[a] (.000)	23.1[a] (.000)	2.8[b] (.039)	11.4[a] (.000)
MP2. The threat of Control Change:															
CONTROL THREAT (%)	10.6	6.7	8.9	20.3	19.8	20.6	1.1 (.297)	14.7	11.3	10.9	16.2	2.5[c] (.085)	19.0[a] (.000)	2.2[c] (.087)	8.5[a] (.000)
CONTROL<20	0.45	0.33	0.61	0.68	0.77	0.66	χ^2= 1.5 (.463)	0.53	0.33	0.65	0.48	χ^2= 6.9[b] (.032)	χ^2= 40.7[a] (.000)	χ^2= 24.5[a] (.000)	χ^2= 1.3 (.737)
20<CONTROL<60	0.43	0.53	0.31	0.31	0.15	0.34	χ^2= 2.3 (.314)	0.37	0.50	0.31	0.38	χ^2= 1.5 (.468)	χ^2= 19.9[a] (.000)	χ^2= 14.2[a] (.003)	χ^2= 1.0 (.799)
CONTROL>60	0.12	0.14	0.08	0.01	0.08	0.00	χ^2= 4.9[c] (.083)	0.10	0.17	0.04	0.14	χ^2= 6.8[b] (.034)	χ^2= 10.0[a] (.018)	χ^2= 2.1 (.546)	χ^2= 1.8 (.613)
(T) BLOCKHDR>20	0.90	0.94	0.70	0.84	0.78	0.89	χ^2= 3.6 (.166)	0.90	0.97	0.95	0.85	χ^2= 2.4 (.304)	χ^2= 50.9[a] (.000)	χ^2= 49.2[a] (.000)	χ^2= 5.2 (.157)
MP3. Characteristics of Acquisition:															
CROSSBORDER BID	0.25	0.36	0.23	0.10	0.26	0.03	χ^2= 13.6[a] (.001)	0.19	0.26	0.17	0.19	χ^2= 2.3 (.315)	χ^2= 56.0[a] (.000)	χ^2= 8.2[b] (.042)	χ^2= 12.3[a] (.006)
TENDER OFFER	0.32	0.23	0.58	0.51	0.60	0.32	χ^2= 17.6 (.000)	0.34	0.34	0.24	0.39	χ^2= 19.3[a] (.000)	χ^2= 81.3[a] (.000)	χ^2= 55.8[a] (.000)	χ^2= 14.9[a] (.002)
HOSTILE BID	0.05	0.05	0.10	0.10	0.14	0.07	χ^2= 7.1[a] (.008)	0.04	0.04	0.03	0.04	χ^2= 0.1 (.932)	χ^2= 14.0[a] (.003)	χ^2= 12.6[a] (.006)	χ^2= 4.3 (.235)
LISTED TARGET	0.43	0.38	0.61	0.48	0.57	0.29	χ^2= 14.5[a] (.000)	0.46	0.38	0.28	0.59	χ^2= 67.9[a] (.000)	χ^2= 28.8[a] (.000)	χ^2= 34.3[a] (.000)	χ^2= 12.2 (.007)
INTRA-IND BID	0.65	0.65	0.69	0.64	0.73	0.54	χ^2= 5.2[b] (.023)	0.65	0.65	0.60	0.67	χ^2= 3.3 (.188)	χ^2= 3.0 (.385)	χ^2= 1.7 (.645)	χ^2= 1.7 (.632)
Number of obs.	1361	590	173	139	42	97	139	459	49	162	248	459	1361	854	259

Strikingly, companies with dispersed control structures dominate among bidders that finance their takeovers by debt (61% of cases). This is likely to be due to the UK and Irish acquirers, most of which have widely dispersed ownership. The choice of debt financing by companies with a dispersed ownership structure may also be the result of the fact that these companies are more vulnerable to a takeover threat than their closely-held peers. Entrenched managers of widely-held firms may voluntarily commit to debt financing to constrain their discretion over corporate funds and hence reduce likelihood that their company be taken over (Zwiebel, 1996). However, Panel B of Table D-3 gives no support to this argument: external financing via borrowing takes place when managers of bidding firms are least exposed to monitoring by the market for corporate control. The highest likelihood of being acquired is observed for companies that issue shares as a means of financing (see column 8).

AG2. Debt Overhang:

The bidder's growth opportunities across acquisitions financed by different types of capital varies significantly (Panel B of Table D-3). The bidder's Q-ratio for equity-financed acquisitions significantly exceeds that for debt- and cash-financed bids. Similarly, equity issuers have the highest average growth rate in capital expenditures, sales, and total assets over the 3 years prior to the year of the acquisition.

AG3. Agency Cost of Debt and Financial Flexibility:

The results reported in Panel B of Table D-3 support the 'agency-cost-of-debt' hypothesis. Although companies that finance the payment of an acquisition by debt sustain a high level of leverage, they have relatively low exposure to market risk. In contrast, bidders opting for equity financing have a high level of leverage and a high non-diversifiable systematic risk (both measures significantly exceed those of bidders in debt-financed deals). As expected, young firms fund their takeovers most frequently with equity.

MP1. Risk Sharing:

Bidders in takeovers with all-equity payment have on average significantly higher market capitalisations than their peers that make all-cash and mixed bids (column 11 versus a mean over columns 2, 3, 5 and 9, and a mean over columns 6 and10 in Panel C of Table D-3). However, the bidder's size has a non-linear effect on the likelihood that a payment involving equity (all-equity or mixed bids) is chosen. We find that an equity payment is used by both very large and very small companies: bidders with the highest market value pay entirely with equity and bidders with the lowest market value pay with a combination of equity and cash (see columns 11 and a mean over columns 6 and 10).

MP2. The Threat of Control Change:

Corporate governance concerns of bidding firms seem to have a significant impact on their choice of the payment method (Panel C of Table D-3). All-equity bids create new shareholders (the former target shareholders) in the combined firm: the largest new shareholder holds an average voting stake of 16.2% (see column 11). If all-cash or mixed offers had been entirely paid with equity, the new largest blockholder would control an average stake of 7.4% and 13.9% respectively (means over columns 2, 3, 5 and 9, and 6 and 10 respectively).

The emergence of a new controlling shareholder with block of 16.2% caused by all-equity acquisitions is unlikely to change the control positions of the major blockholders of the bidding firms. The reason is that most bidders making an all-equity offer either have no controlling blockholders (48% of firms) or they are controlled by blockholders holding a supermajority-voting stake (14% of firms). Strikingly, managers of widely-held bidding firms are not averse to equity offers, even though these deals may create an outside blockholder. In contrast, about half of the bidding firms in all-cash acquisitions (49% of firms) are controlled by shareholders with an intermediate level of voting power ranging between 20% and 60% and these firms are most vulnerable to the treat of control loss (as shown by columns 2, 3, 5 and 9). This evidence is in line with predictions of the control threat hypothesis: the bidder's management prefers cash over equity as a means of payment if an equity issue would threaten the continued control of their largest shareholders.

MP3. Characteristics of Acquisition:

Finally, Panel C of Table D-3 reports that the percentage of cross-border deals and hostile takeovers is highest among all-cash paid acquisitions (32% and 6% of the cases, respectively) and is lowest among acquisitions paid with a combination of equity and cash (12% and 4% of the cases, respectively) or fully with equity (19% and 4% of the cases, respectively). In contrast to hostile bids, unopposed tender offers are more frequently paid with equity (39% of the transactions) than with cash (33%), or with a combination of equity and cash (27%).[101] Acquisitions of listed targets occur more frequently in form of all-equity bids (59% of the cases) than of all-cash bids (44%). There are no significant differences in the frequency of intra-industry acquisitions by different types of payment or of financing methods.

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[101] The high frequency of tender offers with equity can be explained by the fact that the bulk of the equity-paid tender offers in our sample are UK domestic acquisitions. The UK City Code obliges firms making a tender offer to provide target shareholders with a choice between payment alternatives including equity and cash. A preference for an equity payment (which is often made more attractive than a cash offer) is frequently the final outcome of such offers.

5.2.2 Multinomial logit model

Whereas the conclusions in the above section are based on univariate analyses, we now explore the combined effect of the characteristics of target and bidding firms and of the takeover bid itself on the takeover financing structure. As section 4.2 describes, we consider two econometric models of the bidder's financing decision: multinomial logit and nested logit.

The multinomial logit assumes that the bidder opts for a source of financing from four mutually exclusive (independent) alternatives: cash, debt, debt-and-equity, and equity. The model contains three binary logits that predict the probability that a particular source of financing is chosen in relation to equity financing. In order to examine the validity of the multinomial logit model we conduct several Hausman specification tests.[102] As the tests fail to reject the assumption of the independence of irrelevant alternatives (IIA), we consider a multinomial logit model to be an appropriate specification for the bidder's financing choice.[103]

Consistent with the pecking order predictions (CC1), Table D-4 documents that cash-rich bidders finance their takeovers by internally generated funds, whereas cash-constrained firms with sufficient debt capacity prefer debt to equity financing. Firms opt to raise capital via the stock market rather than employ internal funds when they experience significant share price increases prior to the bid announcement.

The 'regulatory environment' hypothesis (CC2) is also supported by data. Acquisitions financed by equity (relative to those financed by cash) are more likely in countries with stronger protection of shareholder rights. This result is in line with the prediction that strong shareholder protection reduces the cost of equity capital and hence increases its attractiveness as a source of financing. Expectedly, when the creditor rights protection is high, bidders prefer borrowing to equity issues. Borrowing is also more likely than issuing equity when the bidder is from a country with better minority shareholder rights protection. This evidence confirms our expectation that bidders are less reluctant to issue equity when private benefits of control are high (resulting from low minority rights protection).

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[102] In each test, we exclude different financing alternatives from the sample and test whether their exclusion leads to a proportionate increase in the probability of the other alternatives.

[103] However, the IIA assumption no longer holds when we consider the bidder's simultaneous choice between six possible payment/financing alternatives: (i) cash payment/cash financing; (ii) cash payment/debt financing; (iii) cash payment/equity financing; (iv) mixed payment/cash financing; (v) mixed payment/debt financing; and (vi) equity payment.

Table D-4. Multinomial logit model predicting bidder's financing choice

The table reports a multinomial logit model that describes the bidder's choice of the financing method in corporate takeovers. Four possible choices are considered: (i) cash financing (cash-paid/cash-financed deals); (ii) debt financing (cash-paid/debt-financed deals); (iii) equity-and-debt financing (cash-paid/equity&debt-financed and mixed-paid/debt financed deals); and (iv) equity financing (equity-paid/equity-financed, cash-paid/equity-financed, and mixed-paid/cash-financed deals). The multinomial logit model includes three binary logit models. Each binary logit predicts a probability of choosing one of the first three alternatives relative to the probability of choosing the benchmark, which is all-equity financing. A Wald test is used to test for significance of the estimated coefficients and the overall regression; the p-value of the Wald Chi-square statistic is reported ($Pr > \chi^2$). Total sample is 1361 acquisitions. This includes 459 acquisitions financed by equity. The Chi-square statistic for test of overall model significance is 8021 (p-value *.000*). [a]/[b]/[c] stands for statistical significance at the 1%/5%/10% level, respectively.

Explanatory variables	CASH Financing (vs EQUITY Financing)		DEBT Financing (vs EQUITY Financing)		DEBT & EQUITY Financing (vs EQUITY Financing)	
	(1)		(2)		(3)	
	Coeff	$Pr > \chi^2$	Coeff	$Pr > \chi^2$	Coeff	$Pr > \chi^2$
INTERCEPT	0.64	*.687*	**-8.32[a]**	*.009*	**-9.63[a]**	*.006*
Cost of Capital (CC1): Pecking Order and Market Timing						
CFLOW/TRANSVAL	**0.02[c]**	*.077*	-0.03	*.328*	**-0.09[c]**	*.072*
COLLATERAL	**1.88[c]**	*.058*	**1.57[c]**	*.051*	1.83	*.164*
FIN LEVERAGE	0.65	*.438*	0.18	*.857*	-0.94	*.451*
RUNUP	**-0.28[b]**	*.049*	-0.04	*.933*	**-0.56[c]**	*.073*
1997-1999	0.40	*.254*	0.34	*.560*	-0.46	*.423*
2000-2001	0.02	*.952*	0.55	*.169*	0.10	*.874*
Cost of Capital (CC2): Regulatory Environment						
SH PRT x RULAW	**-0.05[b]**	*.030*	-0.01	*.836*	-0.02	*.698*
CR PRT x RULAW	0.11	*.235*	**0.11[b]**	*.047*	**0.18[b]**	*.033*
TRANSP x RULAW	-0.01	*.755*	-0.04	*.434*	0.00	*.979*
MIN PRT x RULAW	0.00	*.945*	**0.10[b]**	*.050*	**0.09[b]**	*.025*
Agency Costs (AG1): Agency Cost of Equity and Takeover Threat						
BLOCKHLDR>20	-1.14	*.143*	0.38	*.690*	0.51	*.764*
TO THREAT	-1.65	*.121*	-3.61	*.172*	-2.94	*.136*
Agency Costs (AG2): Debt Overhang and AG3. Agency Cost of Debt and Financial Flexibility						
Q-RATIO	**-0.05[b]**	*.045*	-0.02	*.415*	**-0.16[c]**	*.057*
BETA	0.03	*.898*	-0.10	*.790*	-0.02	*.952*
AGE	0.06	*.581*	0.01	*.812*	0.02	*.808*
Means of Payment (MP1): Risk Sharing						
MVAL (log)	-0.03	*.751*	**0.26[a]**	*.009*	**0.32[a]**	*.005*
RELVAL	**-3.63[a]**	*.000*	**-2.51[c]**	*.051*	**1.31[b]**	*.023*
Means of Payment (MP2): The threat of Control Change						
CONTROL THREAT	0.13	*.135*	**0.11[c]**	*.086*	**0.10[c]**	*.065*
20<CONTROL<60	**1.69[c]**	*.076*	0.30	*.772*	-1.82	*.429*
Means of Payment (MP3): Characteristics of Acquisition						
CROSSBORDER BID	0.01	*.983*	-0.42	*.385*	**-1.75[a]**	*.005*
TENDER OFFER	-0.49	*.249*	0.29	*.665*	0.32	*.654*
HOSTILE BID	**1.14[c]**	*.074*	**1.33[c]**	*.065*	0.95	*.199*
LISTED TARGET	-0.45	*.181*	-0.16	*.821*	**-1.50[b]**	*.042*
INTRA-IND BID	-0.08	*.746*	-0.27	*.453*	-0.16	*.658*

The multinomial logit analysis reveals no support for the agency cost of equity and takeover threat hypotheses (AG1). Neither the presence of a large blockholder nor the threat of being acquired has a significant impact on the bidder's decision to finance an acquisition by debt.

The probability of equity financing increases with the Q-ratio of the bidding firm. This confirms that companies with strong growth opportunities prefer issuing equity to borrowing to finance takeover transactions in order to avoid conflicts of interests between shareholders and debtholders and to maintain flexibility in managing corporate funds (hypothesis AG2). There is no evidence that risky firms (as proxied by beta and age) systematically prefer equity financing (hypothesis AG3). Therefore, we conclude that equity-issuing firms are unlikely to suffer from agency problems of debt.

Consistent with the view that large companies have better access to external financing than small and medium-sized companies, large bidders more frequently use debt capital to fund takeovers. This finding is also consistent with the risk-sharing hypothesis (MP1). Because of their size, large firms are least sensitive to the risk of misvaluation of the target firm, and hence they have no needs to pay for the acquisitions with equity.[104] However, this argument is true only if the size of the target firm is relatively low compared to that of the acquirer. When the relative size of the target increases, the bidder is more likely to offer equity to the shareholders of the target firm (hence choose equity financing). The multinomial logit analysis confirms this hypothesis.

Table D-4 shows that the threat of control loss to the bidder's largest shareholder makes the bidding firm averse to raising capital via equity issues (hypothesis MP2). Bidders are more likely to choose cash or debt financing over equity financing if their largest shareholders control an intermediate voting stake (between 20% and 60%), which could be eroded by an equity payment to the shareholders of a closely held target firm.

The relative size of the target firm and potential control loss are not the only takeover characteristics that affect the bidder's choice of financing sources (or the payment method). Other characteristics include: bid hostility, geographical scope, and legal status of the target firm (hypothesis MP3). Equity financing is more frequently involved in friendly takeovers, whereas hostile bids are financed by cash. Equity financing is preferred to debt in cross-border bids. Apparently, bidding firms have more difficulties to obtain a bank loan or issue cheap debt to fund the acquisitions of foreign firms. Finally, bidders are more likely to issue stock (and to pay with stock) when the target is listed.

To summarize, the results of the multinomial logit analysis suggest that equity issue takes place for the reasons of cost of capital considerations. Pecking order, market-timing, and financiers' protection hypotheses are supported by the data. Debt overhang concerns of the bidding firm also play an important role in the choice of equity financing. Finally, we also find support for

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[104] An all-equity offer allows bidders to keep the target shareholders involved in the merged company and hence o share the misvaluation risk.

the hypothesis that the bidder's decision on the financing sources coincides with or depends on its preference for a specific payment method: the bidder's or deal's characteristics such as control threat, risk sharing, and the success of a takeover bid (depending on takeover bid characteristics) influence the choice of financing sources (and payment means).

5.2.3 Nested logit model of the sequential payment-financing choice

The nested logit model extends the multinomial logit framework by allowing the bidder to make its financing decision conditional on the preferred payment method.[105] That is, the model tests the conjectures about the decision on the transaction financing conditional on an all-cash or mixed payment structure being chosen.

For reasons of comparison, Table D-5 first reports the estimates of the bidder's unconditional choice of the payment method (columns 1 and 2). Our conclusions are similar to those of Faccio and Masulis (2005), who provide a comprehensive analysis of the payment method determinants in European corporate takeovers. Concerns regarding the potential change in the firm's control structure drive the bidder's decision to offer cash rather than equity. These concerns mainly refer to the bidders which control structure may change significantly if a new large shareholder emerges: widely-held firms (CONTROL<20) and firms controlled by a blockholder with an intermediate level of voting rights (20<CONTROL<60). A cash offer is also more likely in cross-border acquisitions and hostile takeovers. In contrast, takeover bids for a listed or a relatively large firm are more likely to be paid with equity rather than with cash or a combination of cash and equity. The probability of an equity offer also increases with the share price run-up prior to the bid announcement and exposure to the market risk of the bidding firm. Finally, an all-equity payment is preferred to a mixed payment when the bidder is from a country with strong minority shareholder rights. While all these findings on means of payment are in line with the results by Faccio and Masulis (2005), we find no significant relationship between the bidder's financial condition (leverage, collateral, cash flow) and the means of payment.

Once the bidder decides upon the means of payment it will include in the takeover bid, it faces another dilemma: how to finance the offer. Columns 3 and 4 of Table D-5 report the estimates of the bidder's financing options conditional on an all-cash offer. Column 5 complements these results with the choice between debt-and-equity and cash-and-equity financing conditional on a mixed offer. The results of columns 1 and 2 yield similar conclusions to those from Table D-4, but columns 3-5 of Table D-5 reveal some interesting additional evidence.

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[105] We also consider an alternative nested logit model specification according to which the bidder makes a payment decision conditional on the financing choice, whereas the choice of financing sources is unconditional. We find that the results of this model regarding the financing choice are very similar to those of the multinomial logit model. Therefore, we do not discuss this model in the paper. The results of the alternative nested logit are available upon request.

Table D-5. Nested logit model: the payment-financing choice

   This table presents the estimates from a nested logit regression that predicts the unconditional probability of choosing a payment method and, conditional on the payment method choice, the probability of choosing a particular source of financing. The first stage is the decision on the mode of payment. The second stage is the choice of financing sources conditional on the payment method. The sample comprises 1,361 acquisitions. The Chi-square statistic for test of the overall model significance is 5612 (p-value *.000*). [a]/[b]/[c] stands for statistical significance at the 1%/5%/10% level, respectively.

Explanatory variables	First stage: Choice of payment method				Second stage: Choice of a means of financing *Conditional on payment method*					
					Cash Payment:				*Mixed Payment:*	
	CASH Payment (vs. EQUITY Paymt) (1)		MIXED Payment (vs EQUITY Paymt) (2)		CASH Financing (vs. EQUITY Financing) (3)		DEBT Financing (vs. EQUITY Financing) (4)		DEBT Financing (vs. CASH Financing) (5)	
	Coeff.	Pr > |t|	Coeff.	Pr > |t|	Coeff.	Pr > |t|	Coeff.	Pr > |t|	Coeff.	Pr > |t|
INTERCEPT	0.90	.655	**-4.30**[b]	.048	3.42	.384	**-15.14**[a]	.008	-4.22	.309
Cost of Capital (CC1): Pecking Order and Market Timing										
CFLOW/TRANSVAL	0.01	.517	**-0.04**[b]	.019	**0.15**[b]	.027	-0.08	.529	**-0.17**[a]	.008
COLLATERAL	1.54	.187	-0.43	.728	-0.78	.709	**0.73**[c]	.062	**2.70**[b]	.043
FIN LEVERAGE	0.69	.507	1.42	.267	1.91	.232	-0.86	.570	**-2.75**[b]	.046
RUNUP	**-0.05**[b]	.039	-0.22	.615	**-1.10**[b]	.023	-0.06	.933	**-1.37**[c]	.098
1997-1999	0.04	.933	-0.45	.433	0.60	.430	-0.94	.506	0.16	.826
2000-2001	0.17	.752	-0.09	.884	0.61	.500	**1.14**[c]	.087	**1.12**[c]	.091
Cost of Capital (CC2): Regulatory Environment										
SH PRT x RULAW	-0.01	.841	-0.03	.342	**-0.09**[b]	.029	**-0.18**[c]	.052	0.07	.406
CR PRT x RULAW	-0.02	.853	0.03	.729	0.11	.525	**0.37**[b]	.035	0.04	.894
TRANSP x RULAW	-0.04	.374	-0.01	.325	-0.02	.511	-0.05	.483	-0.04	.656
MIN PRT x RULAW	0.02	.606	**0.05**[b]	.011	0.07	.221	**0.46**[b]	.011	-0.08	.439
Agency Costs (AG1): Agency Cost of Equity and Takeover Threat										
BLOCKHLDR>20					-0.31	.616	0.45	.762	-0.57	.662
TO THREAT	-4.85	.202	0.58	.640	-1.55	.514	-4.41	.569	-1.51	.278
Agency Costs (AG2): Debt Overhang and AG3. Agency Cost of Debt and Financial Flexibility										
Q-RATIO	-0.01	.563	0.00	.989	-0.06	.139	-0.09	.672	**-0.22**[b]	.031
BETA	**-0.32**[b]	.047	0.56	.117	0.40	.340	**0.97**[c]	.069	0.10	.848
AGE	0.01	.641	0.02	.250	0.01	.221	0.04	.176	0.00	.874
Means of Payment (MP1): Risk Sharing										
MVAL (log)	-0.06	.558	-0.13	.240	**-0.22**[a]	.010	**0.54**[b]	.045	**0.52**[a]	.003
RELVAL	**-4.13**[a]	.000	**-2.24**[b]	.016	-1.79	.322	-0.96	.490	**2.70**[c]	.083
Means of Payment (MP2): The threat of Control Change										
CONTROL THREAT	0.07	.289	0.02	.235	-0.12	.247	0.26	.282	-0.10	.928
20<CONTROL<60	**3.33**[b]	.015	1.34	.352	0.88	.184	-0.19	.897	0.36	.573
CONTROL<20	**1.59**[c]	.092	-0.36	.826						
Means of Payment (MP3): Characteristics of Acquisition										
CROSSBORDER BID	**0.29**[a]	.000	-0.40	.377	-0.42	.488	-0.47	.315	**-2.80**[b]	.012
TENDER OFFER	0.17	.697	-0.84	.233	-0.61	.174	-1.08	.205	1.37	.352
HOSTILE BID	**1.20**[c]	.056	**0.90**[b]	.029	0.53	.569	0.54	.449	-0.72	.585
LISTED TARGET	**-0.69**[a]	.000	**-1.05**[b]	.045	0.55	.587	1.13	.179	-1.46	.330
INTRA-IND BID	-0.19	.283	-0.34	.389	-0.92	.140	-0.36	.422	-0.23	.622

Debt financing of both all-cash and mixed offers is more frequently used (relative to equity(-and-cash) financing) in a period of stock market decline (2000-2001), which is consistent with our predictions based on the pecking order and market-timing. Large firms more frequently opt for financing by external funds (equity and debt). However, the largest firms tend to choose debt over equity. We interpret this finding as additional evidence in support to the pecking order theory. Larger firms are usually more diversified and have relatively lower expected bankruptcy costs, which makes debt capital less expensive relative to equity. However, risky firms are also more likely to opt for debt than for equity financing. This finding supports Bolton and Freixas (2000) who predict that risky firms prefer to finance their activities by debt as banks can help firms through times of financial distress.

Poorer protection of shareholder rights leads to a higher cost of equity capital, so that companies are forced to finance their activities by debt. The negative coefficient on the variable SH PRT x RULAW in column 4 of Table D-5 confirms this hypothesis. We conclude that firms more frequently employ debt capital when the legal environment makes the cost of debt relatively low compared to equity.

The analysis of the choice between cash and debt financing of mixed offers also reveals some marked results. The cash component of the mixed offers is more likely to be funded by debt when the bidder's internal funds are insufficient. This is usually the case when the target firm is relatively large. However, debt financing would not be possible if the bidder had low debt capacity (i.e. high leverage and low collateral). Column 5 of Table D-5 confirms these predictions. Consistent with the debt overhang hypothesis, bidders with high growth opportunities are least likely to finance their acquisitions with debt. Strikingly, the choice of debt is preceded by a significant decline in the share price of the bidding firm. Finally, the cash component of the mixed payment in cross-border bids is usually financed by internal funds,[106] which suggests that bidders acquiring foreign companies have difficulties to raise funds via borrowing.

6. Conclusions

We investigate the bidder's choice of financing sources in European corporate takeovers launched during the period 1993-2001, the fifth takeover wave. To our best knowledge, this is the first empirical study that explicitly investigates how bidding firms finance their deals. In contrast, the previous literature only focuses on the means of payment. As such, these studies typically ignore the sources of transaction financing in all-cash offers and assume that these offers are entirely financed by cash. This chapter shows that external sources of financing (debt and equity)

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[106] It should be noted that this result refers to the financing (not payment) choice of the bidding firm. The results reported in column 5 of Table 5 are already corrected for the bidder's preferences over payment methods.

are frequently employed even in cash-paid acquisitions. We also document that there are fundamental differences in the market reaction to the announcement of all-cash offers financed by different types of capital. Furthermore, irrespective of the payment method, bidding firms seem to have systematic preferences for particular sources of funding, depending on the characteristics of bidder, target, the takeover bid and corporate governance regulation.

We find that investors take into account the information signalled by both the payment method and the sources of takeover financing when evaluating the takeover announcement. A significantly negative price revision following the announcement of a takeover is not unique to the all-equity offers; it is also observed in any other bids that involve equity financing (including cash-paid and mixed-paid takeovers). We also find that, in sharp contrast to the negative returns of all the other deals, cash-paid but debt-financed acquisitions create substantial value (about 3%) to the bidding firms over a 6-month period centred around the takeover bid day. Thus, the bidder's choice of the sources of transaction financing conveys an important signal about the quality of the bidding firm, which investors use to update their beliefs about the firm's prospects.

Multinomial logit and nested logit analyses of the bidder's financing choice show that cost of capital considerations, debt overhang problems, and the choice of specific payment methods are important determinants. Overall, our results can be summarized as follows:

(i) Asymmetric information and the anticipation of a negative market reaction to equity issues force companies to shift from equity to other sources of financing. Cash-rich firms fund their takeovers by internally generated funds. Cash-constrained firms with sufficient debt capacity opt for debt as a means of funding. Debt is systematically preferred to equity in periods of stock market declines, when the adverse effects of equity issues are especially severe. In contrast, transactions funded with equity occurs when investors are positive about the firm's fundamental value and hence tend to under-react to a negative signal triggered by the announcement of equity issues. Overall, the results confirm a firm's pecking order preferences. Remarkably, our analysis fails to find (as does Martin, 1996) a significant relationship between the bidder' financial condition and the choice of payment mode.

(ii) Companies with high growth opportunities tend to avoid debt financing but use equity financing as the dominant source of funding. This result is consistent with Myers' (1977) debt overhang theory predicting that firms with good investment projects avoid borrowing in order to minimize the degree of underinvestment caused by conflicts of interests between shareholders and creditors. However, we find no significant relationship between the bidder's investment opportunities and its payment choice. This is in contrast to the evidence documented in Jung, Kim, and Stulz (1996), Martin (1996), and Faccio and Masulis (2005).

(iii)We reveal that the regulatory environment induces systematic corporate preferences with regard to the sources of funding. Equity financing is more likely in countries with better protection of shareholder rights. However, when creditor rights protection is high, companies

prefer borrowing to an equity issue as a means of financing. This evidence supports LaPorta et al. (1998) who argue that better protection of the providers of finance from expropriation facilitates the development of well-functioning capital markets and ensures lower costs of financing. Since legal protection of shareholders and creditors disproportionally affects the cost of debt and equity capital, it induces systematic corporate preferences with regard to the less expensive sources of financing. In line with Faccio and Masulis (2005), we find no significant impact of legal environment on the choice of a payment mode in takeovers.

(iv)Finally, the data reveal that the bidders' preferences for a specific means of payment affect the financing decision. As do Faccio and Masulis (2005), we show that the likelihood of an equity payment (and hence equity financing) increases with the relative size of the transaction. This is consistent with the risk-sharing hypothesis of Hansen (1987): by offering the target shareholders a continued participation in the merged firm, the bidder shares the risk of a misvaluation of the target firm's assets. Further, all-cash financed acquisitions are more likely when a bidding firm is controlled by shareholders with an intermediate level of voting power ranging between 20% and 60%. This evidence supports the control threat hypothesis: large shareholders of the bidding firm prefer cash over equity as a means of payment if an all-equity bid threatens their control position. In addition, takeover characteristics such as bid hostility, geographical scope, and legal status of the target firm have an additional impact on the payment mode in takeovers. However, none of these factors have significant impact on the bidder's financing choice once we condition it on the payment mode.

In sum, our results show that the decisions on the means of payment and the sources of takeover financing do not coincide. . Judging from the anticipated wealth effects, we conclude that, in addition to the means of payment, the way a takeover deal is financed transmits important information to the market.

Appendix D-I. Variable Definitions

Variable	Definition
(B) MVAL (m US$)	Market capitalization of the bidding firm 60 days prior to the initial bid announcement. <u>Source</u>: *DataStream*
(T) BLOCKHDR>20	Indicator equals one if target firm is controlled by a blockholder owning more than 20% voting stake prior to the takeover. <u>Source</u>: see Data Appendix 1 (in the end of the book).
1993-1996	Indicator equals one if the bid was initiated in the period between January 1, 1993 and December 31, 1996; equals zero otherwise. <u>Source</u>: *SDC*
1997-1999	Indicator equals one if the bid was initiated in the period between January 1, 1997 and December 31, 1999; equals zero otherwise. <u>Source</u>: *SDC*
20<CONTROL<60	Indicator equals one if bidding firm is controlled by a blockholder owing more than 20 but less than 60% of the voting rights (20%<=CONTROL<60%). <u>Source</u>: see Data Appendix 1 (in the end of the book).
2000-2001	Indicator equals one if the bid was initiated in the period between January 1, 2000 and December 31, 2001; equals zero otherwise. <u>Source</u>: *SDC*
AGE	Number of years since the firm was incorporated. <u>Source</u>: *Amadeus/Fame/Reach and DataStream*
BETA	Equity beta of the bidding firm, estimated using the market model over the period of 300 to 60 days before the M&A announcement. The market index is the MSCI Europe. <u>Source</u>: own computations
BLOCKHDR>20	Indicator equals one if bidding firm is controlled by a blockholder owning a voting stake of 20% or more. <u>Source</u>: see Data Appendix 1 (in the end of the book).
CAPX 3YGR (%)	Bidder's average annually compounded growth rate in capital expenditures (scaled by the total assets) over the three-year period preceding the year of the M&A announcement. <u>Source</u>: *Amadeus/Fame/Reach and DataStream*
CASH FIN	Indicator equals one if internal sources are employed to finance cash component of the payment in corporate takeover, and equals zero otherwise <u>Source</u>: *LexisNexis, Factiva, and Financial Times*
CASH PMT	Indicator equals one if the acquisition is fully paid with cash, and equals zero otherwise. <u>Source</u>: *SDC, LexisNexis, Factiva, and Financial Times*
CASH PMT- DEBT FIN	Indicator equals one if borrowing is used to finance the all-cash payment, and equals zero otherwise. <u>Source</u>: *SDC, LexisNexis, Factiva, and Financial Times*
CASH PMT- EQTY FIN	Indicator equals one if an equity issue is used to finance the all-cash payment, and equals zero otherwise. <u>Source</u>: *SDC, LexisNexis, Factiva, and Financial Times*
CROSSBORDER BID	Indicator equals one if the bidder and target are from different countries, and equals zero otherwise. <u>Source</u>: *SDC, LexisNexis, Factiva, and Financial Times*
CFLOW/TA	Ratio of total cash flow (including cash flow from operating, financial, and investment activities) to total assets, at the year-end prior to the deal announcement. <u>Source</u>: *Amadeus/Fame/Reach and DataStream*
CFLOW/TRANSVAL	Ratio of the bidder's total cash flow (including cash flow from operating, financial, and investment activities) over the price paid for the acquisition. Cash flow is at the year-end prior to the deal announcement. <u>Source</u>: *SDC and Amadeus/Fame/Reach and DataStream*
CHLDG/TRANSVAL	Ratio of the bidder's cash holdings (cash and cash equivalents in place) over the price paid for the acquisition. Cash and cash equivalents are at the year end prior to the deal announcement <u>Source</u>: *SDC and Amadeus/Fame/Reach and DataStream*
COLLATERAL	Variable that takes the value of the tangible assets of the combined firm: sum of the bidder's and target's tangible assets scaled by the sum of their total assets. All measures are at the year prior to the deal announcement. <u>Source</u>: computed based on *Amadeus/Fame/Reach and DataStream*
CONTROL THREAT (%)	Target's largest controlling share block multiplied by RELVAL. If the target is unlisted, the controlling share block prior to the takeover deal is assumed to be 100%. <u>Source</u>: *SDC, Amadeus/Fame/Reach and sources reported in* Data Appendix 1 (in the end of the book).
CONTROL (%)	Ultimate voting stake owned by the bidder's largest shareholder. <u>Source</u>: see Data Appendix 1 (in the end of the book).
CONTROL<20 WIDELY-HELD FIRM	Indicator equals one if the bidding firm is widely-held: there is no shareholder owning 20% or more of the voting rights. <u>Source</u>: see Data Appendix 1 (in the end of the book).
CONTROL>60	Indicator equals one if bidding firm is controlled by a large blockholder owning 60% or more of the voting rights. <u>Source</u>: see Data Appendix 1 (in the end of the book).

Variable	Definition
CORRUPT	The corruption index, which indicates the extent to which one can exercise public power for private gain It quantifies indicators ranging from the frequency of "additional payments to get things done" to the effects of corruption on the business environment. The index ranges between 0 and 5, with higher values corresponding to the better quality of law enforcement. Source: *The World Bank (http://www.worldbank.org/wbi/governance/)*
CR PRT x RULAW	Variable that takes the value of the Creditor rights protection index (CREDITOR PRT) multiplied by the Rule of Law index (RULE OF LAW). Source: own computations
CREDITOR PRT	The creditor rights protection index, which hinges on the regulatory provisions that allow creditors to force repayment more easily, to take possession of the collateral, or even to gain control over the firm in case of financial distress. The details about the calculation of the creditor rights index are given in Appendix D-II. The index ranges between 0 and 5, with higher values corresponding to better regulatory protection of creditor rights. Source: own computations.
DEBT FIN	Indicator equals one if a debt issue is used to raise cash, and equals zero otherwise. Source: *LexisNexis, Factiva, and Financial Times*
DEBT/EQUITY FIN	Indicator equals one if both debt and equity issues are used to raise cash, and equals zero otherwise. Source: *LexisNexis, Factiva, and Financial Times*
EQUITY FIN	Indicator equals one if an equity issue is used to raise cash, and equals zero otherwise. Source: *LexisNexis, Factiva, and Financial Times*
EQUITY PMT	Indicator equals one if the acquisition is fully paid with equity, and equals zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
FIN LEVERAGE	Bidding firm's long-term debt prior to the M&A announcement plus deal value, all divided by the sum of the bidding firm's total assets prior to the M&A announcement and the deal value. Source: computed based on *DataStream, Amadeus/Fame/Reach, SDC, LexisNexis, Factiva, and Financial Times*
HOSTILE BID	Indicator equals one if initial takeover offer meets a negative reaction by the management of the target firm or if a competing bid is made. Source: *SDC, LexisNexis, Factiva, and Financial Times*
INTRA-IND BID	Indicator equals one if the bidder and target operate in the same industry (primary 2-digit SIC code coincides), and equals zero otherwise. Source: *SDC and Amadeus/Fame/Reach*
LEVERAGE	Ratio of the bidder's total debt (short-term and long-term) to total assets at the year-end prior to the deal announcement. Source: *Amadeus/Fame/Reach and DataStream*
LISTED TARGET	Indicator equals one if the target firm is listed on any stock exchange at the moment of bid announcement, and is zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
MIN PRT x RULAW	Variable that takes the value of the Minority shareholder rights protection index (MINORITY PRT) multiplied by the Rule of Law index (RULE OF LAW). Source: own computations
MINORITY PRT	The minority shareholder rights protection index, which hinges on the regulatory provisions aiming at increasing the relative power of the minority shareholders in the presence of strong majority shareholders. For the constituting elements of the index and their coding: see Appendix D-II. The index ranges between 0 and 25, with higher values corresponding to more powerful minority shareholders (and lower private benefits of control). Source: own computations.
MIX PMT - DEBT FIN	Indicator equals one if borrowing is used to finance the cash component of the mixed payment, and equals zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
MIXED PMT	Indicator equals one if the acquisition is paid with a combination of cash and equity, and equals zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
Q-RATIO	Bidder's ratio of the market value of equity (ordinary and preferred) plus book value of long-term debt over the sum of book value of equity and book value of long-term debt. The market value of equity is taken 60 days prior to deal announcement, book value of equity and debt are as of the year-end prior to deal announcement. Source: *Amadeus/Fame/Reach and DataStream*
RELVAL (%)	The ratio of the TRANSVAL over the sum of the TRANSVAL plus the bidder's market capitalization. Source: *SDC, LexisNexis, Factiva, Financial Times, Amadeus/Fame/Reach and DataStream*
RULE OF LAW	The Rule of Law index, which measures the extent to which agents have confidence in and abide by the rules of society, and these include the effectiveness and predictability of the judiciary and the enforceability of contracts. It quantifies indicators which measure the extent to which agents have confidence in and abide by the rules of society. The index ranges between 0 and 5, with higher values corresponding to the better quality of law enforcement. Source: *The World Bank (http://www.worldbank.org/wbi/governance/).*
RUNUP (%)	Cumulative abnormal returns (CARs) of the bidder over the window [-60, -20] preceding the takeover announcement day. Daily abnormal returns are computed as the difference between realized and market model benchmark returns. The market model uses the MSCI-Europe index and the parameters are estimated over 240 days starting 300 days prior to the acquisition announcement. Source: own computations

Variable	Definition
SALES 3YGR (%)	Bidder's average annually compounded growth rate in sales revenues (scaled by total assets) over the three-year period preceding the year of takeover announcement. Source: *DataStream and Amadeus/Fame/Reach*
SH PRT x RULAW	Variable that takes the value of the Shareholder rights protection index (SHAREHDR PRT) multiplied by the Rule of Law index (RULE OF LAW). Source: own computations
SHAREHDR PRT	The shareholder rights protection index indicates shareholders' ability to mitigate managerial opportunistic behaviour For the constituting elements of the index and their coding: see Appendix D-II. The index ranges between 0 and 25, with higher values corresponding to better governance outcomes. Source: own computations
TA 3YGR (%)	Bidder's average annually compounded growth rate in total assets over the three-year period preceding the year of the deal announcement. Source: *Amadeus/Fame/Reach and DataStream*
TENDER OFFER	Indicator variable equals one if the bidder makes a public offer to purchase shares of the target firm and the takeover is not classified as hostile (see HOSTILE BID), and is zero otherwise. Source: *SDC, LexisNexis, Factiva, and Financial Times*
TO THREAT	Measure of the bidder's takeover vulnerability: the likelihood of being acquired, estimated with a probit model for the sample of European firms for the period 1993-2001. The sample is constructed as unbalanced panel with 9-years time series. The dependent variable equals one if a firm was acquired during the year and is zero otherwise. The estimates of the probit model are available from the authors upon request. Source: own computations
TOEHOLD	Percentage of the target firm's shares that the bidder held prior to the bid announcement. Source: *SDC, LexisNexis, Factiva, and Financial Times*
TRANSP x RULAW	Variable that takes the value of the Transparency index (TRANSPARENCY) multiplied by the Rule of Law index (RULE OF LAW). Source: own computations
TRANSPARENCY	The transparency index reflects the degree to which the market is informed about the corporate policies and contracts directly related to the management, and the frequency with which this information is released. For the coding of the constituting elements of the index: see Appendix D-II. The index ranges between 0 and 10, with higher values corresponding to better transparency. Source: own computations
TRANSVAL (m US$)	Price paid for the acquisition in US$ equivalent. Source: *SDC, LexisNexis, Factiva, and Financial Times*

Appendix D-II. Corporate governance regulation indices

This appendix shows how specific regulations are quantified to construct four corporate governance regulation indices: the shareholder rights protection index, the creditor rights protection index, the transparency index, and the minority shareholders protection index. Some regulatory aspects are incorporated in several indices.

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1. *The shareholder rights protection index* **(Max=25)** reflects the shareholders' ability to mitigate managerial opportunistic behavior (SHAREHDR PRT). The index is constructed by combining the following 3 sub-indices:

1.1 The appointment rights index is based on the rules to appoint and replace executive and non-executive directors. It measures the degree of alignment of the interests of management and shareholders. The regulatory provisions are quantified as follows:
- Employee representation: 0 if required, 2 if not.
- Nomination to the board by shareholders: 2 if required, 0 if not.
- Tenure on the board: 0 if more than 4 years, 1 if 4 years, 2 if less then 4 years
- Cross-shareholdings:
  - Cross-shareholdings between 2 independent companies: 1 if regulated, 0 if not.
  - Maximum shareholding of a subsidiary in its parent company: 1 if regulated, 0 if not
- Election rules:
  - Proxy voting by mail: 2 if allowed, 0 if not
  - Requirement to Deposit/Register shares prior to a general meeting:
    - ⇨ Bearer shares: 0 if deposit is required, 1 if only registration of shares is required, 2 if none is required
    - ⇨ Nominal shares: 0 if deposit is required, 2 if deposit requirement is forbidden

1.2 The decision rights index captures the shareholders' ability to mitigate managerial discretion. The decision rights index cover regulatory provisions that mandate direct shareholder decision-making. The regulatory provisions are quantified as follows:
- Shareholders approval of anti-takeover defense measures: 2 if required, 0 if not.
- Shareholders approval of preemption rights: 2 if required, 0 if not.
- Percentage needed to call for extraordinary meeting: 0 if no rule or more than 20%, 1 if 20% or less but more than 5%, 2 if 5% and less.
- Voting caps: 0 if allowed, 2 if not.

1.3 The trusteeship index measures the efficiency of the board of directors in monitoring the actions of CEOs. The following regulatory provisions are quantified as follows:
- Board independence:
  - 2 if CEO cannot be the chairman of the board of directors (in 1-tier board structure), 0 otherwise
  - 2 if the overlap between management and supervisory board is forbidden (in 2-tier board structure), 0 otherwise
- Employee representation: 0 if required, 2 if not.
- Separate board of auditors: 1 if required, 0 otherwise

The higher each index, the better is the protection of the shareholders.

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2. *The transparency index* **(Max=10)**: The transparency index is based on the quality of information about company, its ownership structure, and management available to investors (TRANSPARENCY). The following regulatory provisions are quantified in this index:

- Requirement to disclose managerial compensation: 0 if not required, 1 if required on aggregate basis, 2 if required on individual basis.
- Requirement to disclose any transactions between management and company: 2 if required, 0 if not
- Mandatory disclosure of large ownership stakes: 0 if disclosure is not required or the min percent is 25% or more; 1 if 10% or more (less then 25%); 2 if 5% or more (less then 10%); 3 if less then 5%.
- Frequency of financial reports: 0 if once per year, 1 if twice per year, 2 if more than twice per year
- Comply or explain rule: 1 if the requirement is present, 0 otherwise

The higher this index, the more transparent the firm is.

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3. ***The creditor rights protection index*** **(Max=5**) is based on regulatory provisions that allow creditors to force repayment more easily, take possession of collateral, or gain control over firm in financial distress (CREDITOR PRT). The regulatory provisions are quantified as follows:

- Debtor-oriented versus Creditor-oriented code: 1 if no reorganization option (liquidation only); 0 if reorganization + liquidation option;
- Automatic stay on the assets: 1 if no automatic stay is obliged in reorganization (if debt-orient code) or liquidation procedure (if liquidation code); 0 otherwise;
- Secured creditors are ranked first: 1 if secured creditors are ranked first in the reorganization procedure (if debtor-oriented code) or liquidation procedure (if liquidation code); 0 if government and employees are ranked first;
- Creditor approval of bankruptcy: 1 if creditor approval is required to initiate reorganization procedure (if debtor-oriented code) or liquidation procedure (if liquidation code); 0 otherwise;
- Appointment of official to manage reorganization/liquidation procedure: 1 if it is required by law in a reorganization procedure (if debtor-oriented code) or a liquidation procedure (if liquidation code); 0 otherwise.

4. ***The minority shareholders protection index*** **(Max= 25)** is based on the regulatory provisions aimed at increasing the relative power of the minority shareholders in a context of strong majority shareholders (MINORITY PRT). The index is constructed by combining the following 4 sub-indices:

4.1 Minority shareholders appointment rights index is based on the appointment rights that can be used to protect minority shareholders. These include rights to reserve seats on the board of directors for minority shareholders or to limit voting power of large shareholders. The regulatory provisions are quantified as follows:
- Minority representation on the board: 2 if required, 0 otherwise.
- Voting caps limiting power of large shareholders: 1 if voting caps are allowed, 0 if not.
- One-share-one-vote rule: 0 if both multiple voting rights and non-voting shares are allowed; 1 if one of the two is allowed; 2 if none is allowed.

4.2 Minority shareholders decision rights index captures the ability of minority shareholders to affect fundamental corporate transactions that require a shareholder vote. The regulatory provisions are quantified as follows:
- Supermajority requirement for approval of major company's decisions: 0 if 50% or less; 1 if more then 50% but less then 75%; 2 if 75% or more
- Percentage needed to call for extraordinary meeting: 0 if the rule is not present or required percentage is 20% or more; 1 if the required percentage is between 20 and 5%; 2 if the percentage is 5% or less.

4.3 The board independence (from the controlling shareholder) index indicates the extent to which the board of directors serves as a trustee for minority shareholder, i.e. the directors are independent from the firm's controlling shareholders. The regulatory provisions are quantified as follows:
- Nomination to the board by shareholders: 2 if shareholders voting to elect non-executive directors is not required (2-tier boards); 0 if required or 1-tier board
- Board independence: 2 if CEO cannot be the chairman of the board of directors (in 1-tier board structure) or if the overlap between management and supervisory board is forbidden (in 2-tier board structure), 0 otherwise

4.4 The minority shareholders reward and affiliation rights index groups the remaining regulatory provisions aimed at protecting minority shareholders: the principle of equal treatment (or shared returns) and rights for entry and exit on fair terms. The regulatory provisions are quantified as follows:
- Equal treatment rule: 2 if required, 0 if not,
- Mandatory disclosure of large ownership stakes: 0 if disclosure is not required or the minimum percent is 25% or more; 1 if 10% or more (less then 25%); 2 if 5% or more (less then 10%); 3 if less then 5%.
- Mandatory bid rule: 0 if not required; 1 if 50% or control; 2 if between 50 and 30%; 3 if 30% or less.
- Sell-out rule: The squeeze-out rule is used as a proxy for the sell-out rule, (assumption: sell-out is always in place if squeeze-out is adopted, with the same terms as squeeze-out): 0 if no squeeze-out; 1 if squeeze-out at 95% or more; 2 if squeeze-out at 90% or less.
- Minority claim: 0 if no; 1 if 10% or more; 2 if 5% or more; 3 if less then 5%.
- Break-through rule: 1 if required; 0 if not,

CHAPTER 6.

CORPORATE GOVERNANCE CONVERGENCE: EVIDENCE FROM TAKEOVER REGULATION REFORMS IN EUROPE[*]

1. Introduction

There are two polar systems of corporate governance: the market-based system and the blockholder-based system. The former prevails in the UK, US and the Commonwealth countries, and relies on legal rules largely resulting from case law and on the effective legal enforcement of shareholder rights. The blockholder-based system of Continental Europe relies on codified law and emphasizes rules protecting stakeholders such as creditors and employees. The two systems differ not only in terms of the rationale behind their legal rules, but also in terms of their ownership and control. Most Continental European companies are characterized by majority or near-majority stakes held by one or few investors. In contrast, the Anglo-American system is characterized by dispersed equity. The increasing economic globalisation has fuelled the debate on the best corporate governance system and the barriers to the development of a single system of corporate governance (see e.g. McCahery et al., 2002).

Although the debate has generated an extensive body of theoretical and empirical work, the conclusions remain opaque. There is yet no consensus as to what system of corporate law is the best one and whether legal convergence should be encouraged on a global level. A number of theoretical studies argue that regulatory and institutional convergence of corporate governance practice worldwide is likely, but the studies are in disagreement as to the direction of the convergence. In particular, will the Anglo-American model dominate or will a new hybrid model emerge? This chapter comes up with some predictions as to the evolution of corporate governance that is likely to occur through the ongoing reforms of takeover regulation in Europe.

Takeover regulation constitutes an important element of corporate governance. Not only do changes in takeover regulation affect the level of investor protection, the development of capital markets and the market for corporate control, but they are also likely to cause changes in ownership and control. As such, reforms of takeover regulation constitute an important channel through which a corporate governance system can evolve. The chapter provides a detailed

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assessment of established and newly introduced takeover rules. We identify and describe the main provisions in takeover regulation in 30 European countries and analyze how takeover regulation has changed in these countries over the past 15 years. About 150 legal experts throughout Europe have contributed to our unique and large database on the changes in corporate governance regulation (see Data Appendix 2 in the end of the book). We make predictions as to the consequences of the reforms of takeover regulation in terms of ownership and control.

Overall, this chapter shows that there is convergence of European takeover regulation towards the UK regime. For example, the European countries have agreed that the equal treatment rule constitutes a fundamental principle of corporate law. There is also gradual convergence towards the adoption of the mandatory bid and squeeze-out rules. The introduction of lower disclosure thresholds for control as well as the abolishment of shares with multiple voting rights, while still allowing for the use of non-voting shares, may also suggest that there is convergence towards the Anglo-American governance system. However, regulatory changes, which may at first sight appear similar across countries, may have totally different effects within their national system. While in some countries the adoption of a unified takeover code may disperse ownership, in others it may further concentrate ownership. We also conclude that, although the shareholder-centred view of corporate governance is receiving widespread recognition, some economies seem to opt for the blockholder-based system.

The chapter is organized as follows. Section 2 discusses whether there is an optimal corporate governance system and whether the different national systems are likely to converge towards it. Section 3 reviews the corporate governance functions of takeover regulation, while section 4 predicts the impact of takeover regulation on the evolution of corporate governance. Section 5 assesses the possible regulatory mechanisms and their impact on the development of a well-functioning M&A market, on the improvement of shareholder protection, and on the evolution of ownership and control. Using a unique database on corporate law reforms in 30 European countries, section 6 documents the dynamics of takeover regulation and predicts the consequences of the reforms for the development of corporate governance systems. Section 7 concludes.

2. The evolution of corporate governance regulation: the convergence debate

The increasing economic globalisation has fuelled vivid debates on the similarities of and differences between national corporate governance systems and the barriers to the development of a single system of corporate governance (see e.g. McCahery et al. 2002). The key questions are whether a particular national corporate governance system has a competitive advantage over all other systems, and if yes, whether other systems ought to move towards it. These are important

questions as the choice of corporate governance regime has an impact on the availability and cost of capital, corporate performance and the distribution of corporate value in a country.[107]

Although there is now an extensive body of studies, their conclusions remain opaque. There is as yet no consensus as to the best system of corporate law and whether legal convergence should be encouraged on a global level. Some law and economics academics proclaim the superiority of the shareholder-oriented corporate governance system, characterized by well-developed capital markets, the prevalence of institutional investors, good investor protection, a market for corporate control, and a focus on shareholder value. La Porta et al. (1997) argue that this system, which exists predominantly in countries with a common law system, ensures a higher willingness of investors to provide financing as it aims at guaranteeing shareholders a fair return on their investment. In turn, this results in higher company valuations and growth potential (e.g. La Porta et al. (2002), Himmelberg et al. (2002)) and more developed and efficient financial markets (e.g. La Porta et al. (1997) and Mork et al. (2000)). Similarly, Levine (1998, 1999) shows that countries with English legal origin have better prospects in terms of long-run economic growth.

Despite the widely-held view on the superiority of the Anglo-American system, there are also supporters of the alternative systems such as the labour-oriented, state-oriented, and other stakeholder-oriented systems, prevailing in countries of German, French, Scandinavian, and Asian legal origin. The supporters of these alternative systems argue that the chief advantage of these systems lies in the way they address the misalignment of interests between managers and shareholders. Whereas in common law countries this problem is resolved via the monitoring by the market for corporate control and regulation forcing managers to follow the interests of the shareholders, civil law countries mainly rely on large shareholder, creditor or employee monitoring.

Given that the long-term interests of shareholders and stakeholders are not necessarily at odds, it is reasonable to expect the two monitoring mechanisms to produce similar outcomes in terms of long-term wealth creation. In line with this argument, the empirical literature[108] provides mixed evidence about the relative merits of the two mechanisms, but still suggests that the alternative systems of corporate governance can be as efficient as the 'superior' Anglo-American system. The lack of consensus regarding the optimal system of corporate governance has implications for the current law reforms. It raises the question as to the direction reformers of national systems should adopt.

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[107] The empirical literature documents that weak corporate governance, combined with weak enforcement of the law, distorts the efficient allocation of resources, undermines the ability of companies to compete internationally, and hinders investment and economic development.

[108] For a review of this literature see Becht, Bolton and Röell (2003), Dennis and McConnell (2003). For empirical evidence see Rajan and Zingales (1998), Carlin and Mayer (2003), Franks, Mayer and Renneboog (2001).

Hansmann and Kraakman (2000) suggest that the increasing acceptance of a shareholder-centred ideology of corporate law by international business, governments, and legal elites will be translated into corporate law reforms and is likely to result in the convergence of corporate governance towards Anglo-American practice. An alternative view is based on the global competition hypothesis. It states that the two main competing systems should borrow the best practices from one another. This would result in a 'hybrid model' with the right mix of market discipline, corporate regulation, and power of corporate stakeholders. As an example of such a model one may think of the system proposed by the European Commission that is to provide firms with the freedom to select the model that best suits their needs (McCahery and Renneboog 2004). Bratton and McCahery (2000) have yet another view. They argue that each reform programme should focus on resolving the weaknesses of its national system, without attempting to change the system itself. This implies that worldwide convergence is not necessary.

Those predicting convergence of corporate governance regimes justify themselves by stating that convergence makes sense in terms of economic efficiency. However, others argue that economic efficiency may be an insufficient force to bring about convergence and that convergence may only be achieved if political and institutional barriers are eliminated. Thus, Roe (2002, 2003) and Coffee (2000) suggest that powerful interest and lobby groups are an important barrier to convergence. Roe (1991) claims that political constraints lead to a suboptimal system and prevent the move towards a more efficient system. Furthermore, Bebchuk and Roe (2000) stress the importance of path dependency in terms of the evolution of corporate governance. The initial institutional structures[109] and their effect on the legal rules governing the corporations[110] are two main factors that are likely to prevent convergence in practice.

Nonetheless, even if global convergence is unlikely to occur through changes in regulation or other institutional arrangements, Gilson (2000) suggests that there may be contractual convergence of best corporate practice. Firms may choose to deviate from the national corporate governance standards by opting into another corporate governance regime. This implies convergence at the company level rather than at the national (or federal state) level. The incidence of such contractual arrangements has significantly increased over the past decade via (i) cross-listings,[111] (ii) a switch of the state of incorporation,[112] and (iii) cross-border mergers and

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[109] As an example of initial structures Bebchuk and Roe (2000) mention ownership: the initial ownership affects 'the identity of the corporate structure of the economy that would be efficient for any given company and, also, gives some parties both incentives and power to impede changes'.

[110] The initial ownership affects both the type of corporate rules that will be efficient and the interest group politics (lobbying) that can determine which rules will actually be chosen.

[111] Companies opting for an additional listing on another stock exchange have to adopt the listing requirements of that stock exchange, which may consist of different accounting standards, disclosure requirements, and governance structure (Karolyi (1997), Coffee (2002), Pagano, Röell and Zechner (2003), Licht (1998, 2003)).

acquisitions.[113] However, if contractual convergence were to take place, it would likely result in a 'race-to-the-bottom'. Bebchuk and Cohen (2003) and Bebchuk and Ferrell (2001) show that the real reason to incorporate in another state is that companies are attracted to the states that provide managers with a wider range of anti-takeover measures. Hence, the competition between states to attract incorporations may actually worsen corporate governance. Similar trends may occur as a result of cross-border mergers and acquisitions. Companies from countries with less friendly takeover regimes are less likely to be taken over (and hence have more opportunities to seek target companies abroad), whereas companies from countries with relatively friendly takeover regimes are more likely to become targets. Since the target usually adopts the acquirer's governance standards, the cross-border market for corporate control may evolve towards a less friendly takeover regime: either a blockholder-based regime or a market-based regime with effective takeover defences. In turn, this may push countries to adopt takeover regulation resulting in a less friendly takeover regime and hence in less efficient market monitoring of managers.

We conclude that the debate as to the worldwide convergence of corporate governance regimes is still ongoing. A growing number of studies predict global convergence of corporate governance regimes either via changes in the regulatory and institutional framework or via contractual arrangements. However, the predictions of these studies depart substantially from each other with respect to the motives for and the direction of convergence. While regulatory and institutional convergence may be driven by motives of economic efficiency, contractual convergence may be driven by other motives such as managerial entrenchment.

3. The corporate governance functions of takeover regulation

Although takeover regulation is mainly seen as a mechanism to facilitate efficient corporate restructuring (Burkart (1999)), it is also important in terms of mitigating conflicts of interests between diverse company constituencies such as management, shareholders, and stakeholders. Takeover regulation does not only curb conflicts of interests related to transfers of control, but also has a more general impact on the agency problems between management and shareholders, minority and majority investors, and other stakeholders. As such, it constitutes an important element of a corporate governance system. Its corporate governance role, however, depends on

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[112] Companies may incorporate in countries or states with favourable corporate governance rules. For example, in the US, Delaware accounts for almost 60% of all incorporations. According to Daines (2001), a switch to the Delaware incorporation has a positive impact on corporate value.

[113] According to international law, when a foreign firm acquires 100% of a domestic firm, the nationality of the latter changes. Hence, the target firm usually adopts the accounting standards, disclosure practices, and governance structures of the acquiring firm (Bris and Cabolis (2002) and Rossi and Volpin (2003)).

other characteristics of the governance system such as ownership and control (Goergen and Renneboog 2000, 2003).

In a system with dispersed ownership, the primary corporate governance role of takeover regulation is to restrain opportunistic managerial behaviour. Small shareholders cannot effectively monitor the management due to coordination problems and have to rely on external monitoring via the market for corporate control. Hostile takeovers target poorly performing firms and replace poorly performing management. The threat of losing their jobs and perquisites provides managers with an incentive to focus on shareholder objectives. The role of takeover regulation is then to design rules and provide instruments that minimize the costs and inefficiencies associated with the (hostile) takeover mechanism[114] and thereby facilitate a transfer of control towards more productive owners and management. Examples of measures stimulating takeover activity are the squeeze-out rule, the break-through rule, and limitations to the use of takeover defence measures.

In a system with concentrated ownership, takeover regulation functions as a corporate governance device aiming at protecting minority shareholders' interests. The concentration of ownership and control is seen as an alternative mechanism that can mitigate the conflict of interests between management and shareholders. Major investors have strong incentives to monitor management and replace it in poorly performing companies (Franks, Mayer and Renneboog 2001). Bolton and von Thadden (1998) argue that the advantage of monitoring by blockholders is that it takes place on an ongoing basis. In contrast, external disciplining only occurs in crisis situations. However, the presence of a controlling shareholder is also associated with potential opportunistic behaviour towards minority shareholders. Although there are a number of standard company law techniques to resolve conflicts between the large shareholder and minority shareholders, takeover regulation plays an important role, as it can provide minority shareholders with an 'exit on fair terms' opportunity. Provisions such as the sell-out right, the mandatory bid rule, or the equal treatment principle, ensure such exit opportunities for minority shareholders.

Specific provisions of takeover regulation apply to control transactions to regulate conflicts of interests between the management and shareholders of the target and bidder. Two major agency problems may emerge. First, control transfers may turn the target's incumbent shareholders into minority shareholders. Second, the management of the target company may be tempted to

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[114] However, hostile takeovers may constitute a disruptive and costly mechanism to bring about a change in control as the vast majority of the takeovers does not yield the anticipated synergistic value increase (Gregory (1997), Dickerson, Gibson and Tsakalotos (1997), Rau and Vermaelen (1998), Ghosh (2001), Louis (2004)). There is no evidence that hostile takeovers are able to create more (long-term) synergistic value than friendly ones and hostile acquisitions tend to be more disruptive than friendly ones. Therefore, even in the US and UK where widely-held firms prevail, hostile takeovers are relatively rarely used. Over the 1990s, 239 hostile takeovers were announced in the US and 158 in the UK. This constitutes 2.3 and 6.5 percent of the total number of announced tender offers, respectively. There were only 67 hostile bids in the 14 EU countries (excluding the UK), representing 1.3 percent of all tender offers announced during this period (Thomson Financial Securities Data (2004)). In most other countries they are even rarer.

implement unduly defence measures to obstruct the takeover, even if this clashes with shareholder interests. Takeover regulation should aim at minimizing both potential conflicts. In particular, a limit on the use of anti-takeover devices is seen as the best way to constrain opportunistic managerial behaviour. In addition, the mandatory bid rule and the sell-out right provide the target shareholders with a right to exit the company at a fair price.

Overall, the above discussion suggests that takeover regulation can have a number of provisions that perform corporate governance functions both in the case of a transfer of control and in terms of governance of ordinary corporate activity. There are, however, three important trade-offs. First, in countries with dispersed ownership, provisions aiming at providing an exit opportunity for target shareholders are likely to discourage the monitoring of managers via the market for corporate control and vice versa.[115]

A second trade-off arises with respect to the two main functions of takeover regulation: the promotion of efficient corporate restructuring, and the reduction of agency conflicts and the protection of minority shareholders. The trade-off is similar to the previous one, but relates to the broader definition of corporate restructuring, which apart from the hostile takeover mechanism, includes the reallocation of capital to better managers. As such, the second trade-off is equally important in countries with dispersed ownership and those with concentrated ownership. Takeover regulation also indirectly affects the incentives for a company to seek a listing on the stock exchange. If the incumbent owners value control, they will often be reluctant to take their firm public if this exposes them to an active market for corporate control. Their reluctance to take their firm public depends on the distribution of gains from a future takeover bid, which is determined by takeover regulation. Furthermore, regulation that is likely to reduce the power of the blockholders discourages a listing. This constitutes a third trade-off of the regulation: promoting the expansion of financial markets, and supplying corporate governance devices aimed at protecting the rights of corporate constituencies.

No clear guidelines are available as to how the above trade-offs should be made. The way the trade-offs are made critically depends on the broader (national) corporate governance framework and the economic and political objectives of national regulators.

4. Reforms of takeover regulation and corporate governance convergence

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[115] Regulatory provisions that allocate more takeover surplus to the bidding firm increase the bidder's incentive to make a bid to acquire a poorly performing firm and replace its inefficient management upon the acquisition of control. However, such provisions may dilute rights of the target company's incumbent shareholders. Takeover provisions that provide exit opportunities for minority shareholders redistribute the takeover surplus from the bidder to the target shareholders and hence make a takeover bid less attractive for the former.

As takeover regulation is an important corporate governance device, any attempts to change its provisions have a significant impact on the wider corporate governance system. Not only do changes in takeover regulation affect the level of investor protection and the development of a country's takeover market, but they may also bring about changes in ownership and control. As such, takeover regulation reforms provide an important channel for a corporate governance system to evolve. It would be misleading to conclude that the harmonization of takeover regulation across countries will lead to global convergence of corporate governance regimes as the corporate governance functions of takeover regulation depend on the degree of ownership and control concentration.

Takeover regulation reforms, which focus on the conflict of interests between management and shareholders, are likely to improve investor protection. Depending on the provisions introduced by the regulation, the reforms either improve the efficiency of the external monitoring by the market for corporate control, or restrict managerial decision power with respect to the use of anti-takeover devices. Since both types of provisions force managers to satisfy the interests of the shareholders, shareholder protection is expected to improve, should these provisions be adopted. La Porta et al. (1999) argue that better protection increases shareholders' confidence and hence their willingness to invest, which encourages a more dispersed ownership structure.

Regulatory reforms that introduce exit opportunities for minority shareholders reduce the private benefits of control that the controlling blockholder can exploit at the detriment of these minority shareholders. This improves the protection of the latter. Low private benefits of control can be regarded as a requirement for ownership dispersion, as they reduce the incentives to hold a controlling block. However, regulatory provisions that reduce the private benefits of control may discourage not only holding controlling blocks of ownership, but also efficient corporate restructuring as private gains to a bidder are often an incentive for a takeover bid. As a result, control may remain in the hands of inefficient blockholders. Hence, the effect of such reforms may result in either the upholding of the existing concentrated ownership and control or in a shift from dispersed to concentrated shareholdings.

An increase in investor protection or a decrease in private benefits of control alone may be insufficient to induce changes in ownership. Bebchuk (1999) shows that, in the presence of large private benefits of control and a well-functioning takeover market, ownership is unlikely to become more dispersed. Since a third party acquiring a controlling block is unable to compensate the incumbent blockholder for the private benefits of control the latter enjoys, it is unlikely that the incumbent ever accepts a bid. Thus, where private benefits of control are high, regulatory reforms aimed at improving investor protection are likely to reinforce the existing ownership structure. Roe (2002) proposes an alternative scenario. In his view, if the costs of monitoring management are high, the development of a well-functioning market for corporate control may lead to a shift from

concentrated to dispersed ownership. An active takeover market incorporates the costs of potential agency costs caused by high managerial discretion by providing efficient external monitoring, and thus reducing the need for large-shareholder monitoring. This shift towards widely-held ownership may be further supported by other drawbacks of large share blocks such as the costs from low liquidity and undiversified risk. We conclude that takeover regulation reforms that enhance investor protection are likely to lead towards more dispersed ownership provided that private benefits of control are relatively low. It also follows from Bebchuk (1999) and Roe (2002) that, when investor protection is already high, reforms aiming at reducing private benefits of control may bring about ownership dispersion. However, if management has substantial discretion to apply anti-takeover measures, the preferred ownership distribution may shift towards a more concentrated structure even if private benefits of control are reduced. Table E-1 summarizes the above conjectures.

Table E-1. Reforms of takeover regulation and their expected impact on ownership and control within a particular corporate governance system

Initial characteristics of the system	Takeover regulation reforms	Expected effect on the ownership structure
▪ Low investor protection (High managerial discretion)	Decrease in private benefits of control	Remains concentrated
▪ High investor protection (Effective external monitoring of managers)	Decrease in private benefits of control	More dispersed
▪ Low private benefits of control	Improve investor protection	More dispersed
▪ High private benefits of control	Improve investor protection	Remains concentrated

The European Commission tried to establish a global level-playing field for a takeover market. However, the adoption of such a unified takeover code by countries with different initial settings may disperse ownership in some of them, but may further consolidate the blockholder-based system in others. Since the blockholder-based system lacks a market for corporate control, any further reinforcement of this system caused by the takeover law harmonization may disable the attempts to establish such an international level-playing field.[116]

5. Devices of takeover regulation

As discussed in section 3, takeover regulation should ensure a well-functioning market for corporate control and protect the interests of minority shareholders and other types of stakeholders. The regulatory devices available to achieve these two aims are manifold and comprise: (i) the

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[116] For more details on this issue, see Becht (2003)

mandatory bid rule, (ii) the principle of equal treatment of shareholders, (iii) ownership and control transparency, (iv) squeeze-out and sell-out rules, (v) the one-share-one-vote principle, (vi) the break-through rule, and (vii) board neutrality with respect to anti-takeover measures. This section discusses the role of each device as well as its potential consequences for the ownership structure. Table E-2 summarizes the conjectures presented below.

5.1 The mandatory bid rule

The mandatory bid rule provides the minority shareholders with an opportunity to exit the company on fair terms. The rule requires the acquirer to make a tender offer to all the shareholders once she has accumulated a certain percentage of the shares. Whereas about a decade ago, a tender offer on all shares outstanding was only mandatory after an investor had acquired de facto majority control, nowadays thresholds are substantially lower. For instance, there has been a decrease in the thresholds in Denmark and Italy. In these countries, a tender offer needs to be made to all the remaining shareholders as soon as the bidder has accumulated one third of the company's equity. The mandatory bid rule usually also dictates the price of the tender offer. Depending on the national regulation, the price must not be lower than the highest price paid for the shares already acquired by the bidder or must not be lower than a certain percentage of the average share price of the previous 12 months (e.g. 75%). The mandatory bid requirement is justified on the grounds that an investor, who obtains control, may be tempted to exploit private benefits of control at the expense of the minority shareholders. As such, the role of the mandatory bid rule in takeover regulation is to protect the minority shareholders by providing them with the opportunity to exit at a fair price.

Although the mandatory bid requirement may mitigate the problem of expropriation of minority shareholders, it also decreases the likelihood of value-creating restructuring (Burkart and Panunzi, 2004). The main reason for this is that the rule makes control transactions more expensive and thereby discourages bidders from making a bid in the first place. There are several ways to reduce these costs. First, the costs can be reduced by increasing the threshold above which the acquirer has to make a mandatory offer. Second, the costs can be reduced by allowing the price in the tender offer to be lower than the highest price paid for any of the shares previously accumulated. Third, they can be reduced by granting further exceptions to the rule rather than just for financial distress of the target. However, any of the suggested modifications to the rule increase the likelihood that minority shareholders are expropriated and violate the equal treatment principle of corporate law.

Introducing a mandatory bid rule has some implications for the ownership and control structure in a blockholder system. First, it makes the blockholder system less efficient, as it

reduces the trade in controlling blocks which is the dominant way to transfer control in this system (Köke and Renneboog, 2004). Consequently, control may remain in the hands of inefficient blockholders. Second, it restricts the size of the stake a blockholder is allowed to acquire without triggering a tender offer. Third, the higher the bid price in a mandatory tender offer, the lower is the acquirer's incentive to make a bid such that ownership and control in the blockholder system is likely to remain concentrated.

In contrast to the blockholder system, the shareholder-oriented system with its dispersed ownership structure is almost unaffected by the introduction of the mandatory bid rule. Although the requirement to make a tender offer may reduce the intensity of M&A activity and hence provide managers with greater discretion, it is unlikely to result in a more concentrated ownership structure.

5.2 The principle of equal treatment

While the principle of equal treatment constitutes an important principle of corporate governance regulation, it is particularly important in takeover regulation where the possibilities of violations of the rights of minority shareholders are far-reaching. The principle requires controlling shareholders, the management, and other constituencies to treat all shareholders within each individual class of shares equally. The equal treatment requirement became a fundamental principle in almost all Western European countries prior the 1990s. During the 1990s, it was introduced in Switzerland[117] as well as in Central and Eastern European countries.[118]

The equal treatment principle requires an acquirer the opportunity to offer minority shareholders to exit on terms that are no less favourable than those offered to the shareholders who sold a controlling block. Overall, the role of the equal treatment principle in takeover regulation is similar to the mandatory bid rule as both aim at protecting minority shareholders.

The adoption of the principle of equal treatment substantially affects the blockholder system, but has virtually no effect on the market-based system. In target companies with concentrated ownership, an acquirer usually has to offer a control premium to the incumbent blockholder reflecting the potential private benefits of control. If there is a mandatory bid

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[117] Until 1992, the principle was unwritten, but generally recognized at the level of company law. As from the 1992-revision, it was incorporated in the law (art. 717 sec. 2 CO) in a qualified manner, providing for equal treatment under equal circumstances. Although the principle refers to the treatment of shareholders by the board of directors, it is recognized as a general principle. At the level of stock exchange regulations, takeover offers have had to comply with the principle of equal treatment of shareholders (art. 24 sec. 2 SESTA) since 1998.

[118] For example, in Bulgaria, the principle is contained in Art.181, Para. 3 of the Trade Act of 2000. In Cyprus, Section 69A of the Companies Law introduced in 2003 states that: "the shareholders of a class of shares of a public company shall be equally treated by the company". In the Czech Republic, it was introduced in 2001 (§ 155/7 of the Commercial Code)..

requirement, the bidder has to repurchase the remaining shares at a price no less that the one she paid for the controlling block. Therefore, the combination of the mandatory bid and the equal treatment principle increases the costs of an acquisition and decreases the price that a bidder is able to offer to the controlling shareholder (Davies and Hopt, 2004). This discourages the incentives to make a bid, as well as the incentives for incumbent blockholders to accept one. Consequently, the equal treatment principle is an additional barrier to a well-functioning market for corporate control in a blockholder-based governance regime.[119] Nonetheless, the equal treatment principle may cause a shift towards more dispersed ownership, as it discourages the accumulation of controlling share blocks in the long run. Conversely, Bebchuk (1999) predicts that concentrated ownership will prevail, especially when the principle of equal treatment is not enshrined in corporate law.

5.3 Transparency of ownership and control

An important element of corporate governance consists in the disclosure of voting and cash flow rights. In all Western countries, the disclosure regulation relates to voting rights rather than cash flow rights (see the country studies in Barca and Becht (2001)). Virtually all of these countries have recently lowered the thresholds above which the ownership of control rights need to be disclosed. In some countries, the 'strategic intent' or the purpose for which the share stake was acquired also has to be disclosed. Thus, in the early 1990s, the average threshold for disclosure in Western Europe and Scandinavia was about 9 percent, with the UK having the lowest threshold (3 percent), and Germany the highest threshold (25 percent). In countries such as Italy and Sweden, a mandatory disclosure of voting rights was introduced for the first time as late as 1992. By 2004, the average threshold was reduced to 5 percent with the lowest threshold of 2 percent in Italy and the highest one of 10 percent in Luxembourg and Sweden. Information about major share blocks allows the regulator, minority shareholders and the market to monitor large blockholders in order to avoid that the latter extract private benefits of control at the expense of other stakeholders. In other words, transparency minimizes potential agency problems *ex ante*. Moreover, transparency allows the regulator to investigate, for instance, insider trading or self-dealing by large blockholders.

Conversely, a higher threshold for the mandatory control disclosure improves the efficiency of the hostile takeover mechanism (Grossman and Hart, 1980). Bidders can make substantial profits on the toehold stake they built up prior to reaching the disclosure threshold. The disclosure of the acquisition of a major stake may alert the market that a bid is likely to take place.

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[119] It is only in the absence of large private benefits of control that private negotiations with the incumbent controlling blockholder are likely to result in lower costs for a control transfer than an open market purchase from dispersed shareholders (Bagnoli and Lipman, 1988, Holmström and Nalebuff,1990, and Burkart, Gromb, and Panunzi,1997). The presence of controlling shareholders in companies may then facilitate an active market for corporate control.

This will lead to a revision of the share price that may then reflect the likely gains from the takeover. The higher the thresholds for the ownership disclosure and the mandatory bid, the lower is the number of shares for which the bidder pays the full takeover premium. Conversely, lowering the disclosure and mandatory bid thresholds will cause a fraction of potential takeovers not to be undertaken.[120]

However, a decrease in the disclosure threshold is unlikely to have a substantial impact on control. On the one hand, lowering the disclosure threshold reduces the bidder's incentives to make a bid, which may lead to less efficient external monitoring of management. On the other hand, a lower threshold enhances the disclosure of information and hence positively affects investor protection. As it is unclear which effect dominates, the impact of a tightening of control disclosure on the shareholding structure is ambiguous.

5.4   The squeeze-out and sell-out rules

The squeeze-out rule gives the controlling shareholder the right to force minority shareholders, who hold out in a tender offer, to sell their shares to the bidder at or below the tender offer price (Boehmer (2002), and Becht, Bolton and Röell (2003)). The squeeze-out rule only kicks in, if the bidder has acquired a specific percentage of the equity, usually 90%.[121] The rule allows the bidder to obtain 100% of the equity and frees him from having to deal with minority shareholders. The squeeze-out rule affects the behaviour of the target shareholders during a tender offer as it reduces the hold-out problem and may lead to a decrease in the tender price.[122] According to Yarrow (1985) and Maug (2004), the economic efficiency of the squeeze-out rule depends on how the price at which the minority shares are squeezed out is determined. For example, Maug's model predicts that economic efficiency worsens if minority shareholders extract higher premiums in squeeze-outs. If these premiums are higher than those offered in the tender offer, then few will be tempted to tender in the first place.

The sell-out rule is another provision aiming at protecting the remaining minority shareholders who have the right to demand the controlling shareholder to buy their shares at a fair price. The rule reduces the pressure on the target shareholders to tender. As a consequence, this

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[120] See e.g. Shleifer and Vishny (1986), Hirshleifer and Titman (1990), Kyle and Vila (1991), and Burkart (1999).

[121] Across countries, there is some variation in the threshold above which the bidder can squeeze out the remaining minority shareholders. Ireland has the lowest threshold with 80 percent. The usual threshold in Western European countries is 90 percent, while Belgium, France, Germany, and the Netherlands impose the highest threshold, 95 percent. However, 95 percent became the highest threshold only in 1998 when Italy and Switzerland reduced their squeeze-out threshold from 98 to 90 percent.

[122] When a bid is conditional on the squeeze-out threshold, shareholders cannot gain from retaining shares. Hence, they are willing to tender at prices below post-takeover minority share value. Therefore, bidders who condition their bid on a squeeze-out threshold should earn higher returns.

rule has a negative impact on the likelihood of acquisitions occurring. Although the sell-out rule is seen as a counter-provision to the squeeze-out rule, the two rules are used jointly in many jurisdictions. The proposed European Takeover Directive contains both the squeeze-out and sell-out rights.

Summarizing the above discussion, the squeeze-out rule mitigates potential free-riding behaviour by small shareholders, thereby allocating more of the takeover gains to the bidder. In addition, the rule eliminates the potential problems that may arise between the controlling shareholder and the remaining minority shareholders after most of the target's shares have been acquired. Hence, the squeeze-out rule is expected to facilitate takeovers and its introduction may have a positive impact on the development of a takeover market. In contrast, the sell-out rule reduces the share of takeover gains allocated to the bidder, thereby discouraging some value-creating takeovers. The rule is aimed at protecting minority shareholders. Like the squeeze-out rule, the sell-out right also eliminates potential conflicts between the majority shareholder and the minority shareholders. The adoption of the two rules may reduce the incentives of holding controlling blocks and may thus reduce ownership concentration in the long run.

5.5 The one-share-one-vote principle

The one-share-one-vote principle speaks against any arrangements restricting voting rights. Dual-class shares with multiple voting rights, non-voting shares and voting caps are forbidden if this legal principle is upheld. The issue of dual class shares or non-voting shares allows some shareholders to accumulate control while limiting their cash investment. Another way to deviate from the one-share-one-vote principle is via pyramids of control. The use of intermediate holding companies allows the investor at the top of the pyramid − the ultimate shareholder − to have control with reduced cash flow rights. Renneboog (2000) and Köke (2004) show that for Belgium and Germany, respectively, it is the ultimate shareholder rather than direct shareholders who monitors the firm and exercises control.

The potential benefit from introducing differentiated voting rights is that more firms may seek a stock exchange listing. Company owners who value control are often reluctant to take their firm public if they risk losing control in the process. A deviation from the one-share-one-vote rule allows them to minimize the risk of losing control. Hart (1988) argues that a deviation from the one-share-one-vote principle is unlikely to hurt minority shareholders as the lack of control rights is compensated by the lower offer price at the flotation.

Becht, Bolton and Röell (2003) review the theoretical literature which addresses whether deviations from the one-share-one-vote rule improve the efficiency of the takeover mechanism. Grossman and Hart (1988) show that, if shareholdings are dispersed, the one-share-one-vote rule

ensures a socially efficient outcome of a takeover bid because it enables the bidder who values the target the most to gain control. Furthermore, deviations from the rule may harm the development of a market for corporate control. First, given that differentiated voting rights facilitate the control by a few owners, this makes a takeover virtually impossible without a break-through rule (see sub-section 5.6). Second, although violations of the one-share-one-vote rule such as voting agreements can curb the power of the controlling shareholder and provide greater protection to minority shareholders, they may also increase managerial discretion and discourage potential value-increasing takeovers (Crespi and Renneboog, 2003). Third, voting restrictions such as voting caps represent important anti-takeover devices that discourage potential bidders from making an offer. However, such voting restrictions provide greater protection to minority shareholders.

Preventing deviations from the one-share-one-vote principle has a two-fold effect on ownership and control. First, it eliminates barriers to the takeover market, and therefore protects investors against opportunistic managerial behaviour. This may translate into a greater willingness of small investors to participate in equity financing which leads to a more dispersed shareholding structure. Thus, the one-share-one-vote rule may be an important corporate governance device, especially for firms with a dispersed ownership structure. Second, a reform that bans deviations from the rule reduces minority shareholder protection, increases the potential private gains of control and encourages ownership concentration. Thus, the impact of the introduction of the one-share-one-vote principle to the blockholder system is still ambiguous, as it depends on whether the effect from the protection against opportunistic behaviour of incumbent managers or that from the reduced shareholder protection resulting from the abolition of voting caps dominates.

5.6   The break-through rule

The effects of a violation of the one-share-one-vote principle via dual class shares, non-voting shares or voting caps, can be undone if corporate law allows for a break-through rule. This rule enables a bidder who has accumulated a given fraction of the equity, to break through the company's existing voting arrangements and exercise control as if the one-share-one-vote principle were upheld. For example, a recently acquired block consisting of a majority of non-voting rights may be converted into a voting majority by means of the break-through rule. The rule facilitates corporate restructuring as it allows the bidder to bypass anti-takeover devices and redistributes the takeover gains from the incumbent shareholders to the bidder.[123] Thus, the break-through rule

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[123] Berglöf and Burkart (2003) argue that the break-through rule reduces the costs associated with the acquisition of all minority shares as imposed by the mandatory bid rule. They compare the takeover price that a bidder is expected to pay in order to acquire 100% of the company's equity under two scenarios: (1) the case of a negotiated block trade with an incumbent shareholder and a subsequent mandatory bid, and (2) the case of a direct tender offer to non-controlling shareholders (bypassing the incumbent shareholder controlling a majority of the voting rights) with the

makes transfers of control feasible that would otherwise have been made impossible due to the opposition by a target shareholder holding a majority of voting shares.

However, the break-through rule also has some major disadvantages. First, there is inconsistency between the break-through rule and the mandatory bid rule. The break-through rule gives control by circumventing the provisions in the articles of association rather than by acquiring a certain percentage of voting shares. As such, the break-through rule violates the principle of shareholder decision-making. Second, in addition to making value-increasing takeover bids possible, the break-through rule also facilitates takeover attempts by inefficient bidders who would otherwise be discouraged by the mandatory bid requirement. Third, the rule not only makes inefficient acquisitions possible, but also frustrates attempts by the incumbent shareholders to prevent such bids. Finally, the main concern is that the break-through rule will induce the creation of even more complex pyramids and cross-holdings (Bebchuk and Hart, 2002). The reason is that such voting structures are not covered by the break-through rule which only targets voting caps, non-voting shares and multiple-voting shares. Technically, shifts towards pyramidal ownership structures could disable most of the advantages of the break-through rule.

The direct effect of the break-through rule within the blockholder-based system is the decrease in the costs of successful bids. This decrease promotes takeover activity and facilitates transfers of control. However, Berglöf and Burkart (2003) argue that the rule fundamentally alters the initial contracts of the controlling owners resulting in uncertainty about property rights, and thus reducing the incentives of the controlling owners to invest in corporate governance actions. The rule also eliminates their veto over transfers of control and reduces their prospects of getting compensated for their private benefits of control. Overall, this suggests that the introduction of the rule should eventually increase ownership dispersion. However, as argued above, the emergence of more complex control structures such as pyramids and cross-shareholdings to circumvent the breakthrough rule may reinforce the blockholder model. Therefore, we conclude that the long-run impact of the break-through rule on ownership is unclear as it depends on the blockholders' ability to build up share stakes via pyramids.

5.7   Board neutrality and anti-takeover measures

Although the takeover market is considered to be an external corporate governance mechanism that forces managers to act in the interests of the shareholders, it can also be a source of even greater divergence of interests between these two parties. In the wake of a takeover threat, the management of the target company potentially faces a conflict of interests: the transaction may

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subsequent application of the break-through rule. They show that the break-through rule reduces the acquisition costs compared to a negotiated block trade followed by a mandatory bid.

create shareholder value, but also endangers their jobs and perquisites. If the management of the target firm has unrestricted power, the line of actions chosen may focus on their own interests and hence on the prevention of a takeover. This calls for a set of rules that govern the behaviour of management and shareholders when a takeover offer is imminent. The rules deal with the issues of who decides whether to reject or accept the offer, the adoption of takeover defences and the bargaining strategy with the bidder. The rules mainly apply to widely-held companies where the problem of managerial discretion is especially pronounced.

There are two solutions for mitigating the managerial agency problem in a takeover context (Davies and Hopt (2004)). The first is to transfer the decision as to the acceptance of a bid to the shareholders of the target company and to remove it from the management. Unless the regulator forbids this, the management can only influence the decision by taking actions that discourage potential bidders from making an offer in the first place or by prolonging the offer process. Examples of such actions are the attempt to make the company less attractive to a potential bidder, the advice to the target shareholders to reject the bid, and the search for a white knight.

Currently, several jurisdictions impose board neutrality with respect to takeover offers, preventing the board of directors from taking actions that may frustrate a potential bid. For example, the use of poison pills is forbidden in most European countries. The main argument in favour of board neutrality is that it limits the potential coercive effect of a bid (Bebchuk (2002), Arlen and Talley (2003)). In most jurisdictions, the board should indeed remain neutral and limit the use of anti-takeover devices unless an anti-takeover strategy was approved by the shareholders at a general meeting and only once a bid has been made.[124]

The second solution is to provide the board with substantial decision power, but to give the shareholders the possibility to veto its decisions. The board has then the right to negotiate with a bidder on behalf of the shareholders. This arrangement mitigates the coordination problem between small shareholders in case of dispersed ownership and the agency problems of other stakeholders such as the employees. In a second stage, the shareholders are asked to approve or reject the managerial advice. Although this arrangement gives more flexibility to the target management to act against potentially undesired bids by setting up an anticipatory anti-takeover strategy, there is also more opportunity for the managers to pursue their own interests. Therefore, additional corporate governance devices should be introduced, such as the strengthening of the independence of the non-executive directors, and the use of executive compensation contracts that align managerial interests with those of the shareholders.

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[124] Where ownership and control are concentrated, if the law requires the approval of a defensive measure by a majority of shareholders at the AGM, a controlling shareholder can easily oppose any takeover attempt. Therefore, it is important to allow for deviations from the one-share-one-vote rule in favour of the minority shareholders when the adoption of defensive measures is up for a vote.

The first solution effectively addresses the potential agency problems between shareholders and management of the target in the wake of a takeover. However, its weakness is that the defensive tactics can only be applied once a bid has been received and not prior to receiving a bid. In contrast, the second solution provides management with the flexibility to prevent value-destroying takeovers *ex ante*. However, this mechanism may increase the agency problem between management and shareholders. Both solutions are applied in the real world. The first one is used mainly in the UK and in most of Continental Europe, whereas the second one is applied in the US and some European countries such as the Netherlands. Germany has opted for a mix of the two.

The two solutions have implications not only in terms of the relative importance of agency problems and the development of the market for corporate control, but also in terms of ownership. Roe (2002) predicts that, under the second solution, ownership may become more concentrated as management has substantial discretion to apply anti-takeover measures and costs associated with managerial discretion are high. If ownership is concentrated, the first solution may encourage better minority shareholder protection as it reduces the power of the managers acting in the interests of the large blockholder. In this case, ownership is likely to become more dispersed. However, this may be true only if the voting power of the controlling blockholder is also restricted. Otherwise, ownership will become even more entrenched in the hands of the controlling blockholder as he will have power to affect any corporate decisions not through management but directly.

Table E-2. Expected consequences of takeover regulation reform (summary of the conjectures discussed in section 5)

	Elements of Takeover regulation	Concentrated ownership structure			Dispersed ownership structure		
		Impact on M&A activity	Impact on minority shareholder protection	Impact on ownership structure	Impact on M&A activity	Impact on target shareholder protection	Impact on ownership structure
1	***The Mandatory bid rule:***	Less trade in controlling blocks	Better protection	More concentration	Fewer M&As	Better protection	No impact
1.1	*Lower mandatory bid threshold*	Fewer M&As	Better protection	More dispersion	Fewer M&As	Better protection	No impact
1.2	*Higher price at which the bid should be made*	Fewer M&As	Better protection	Ambiguous	Fewer M&As	Better protection	No impact
1.3	*No equal treatment requirement*	More M&As in form of two-tier offers	Expropriation of minorities	More concentration	More M&As in form of two-tier offers	Expropriation of incumbent shareholders	More concentration
1.4	*Equal treatment requirement (in the presence of high private benefits of control)*	Fewer M&As	Better protection	Ambiguous (more dispersion)	No impact	Better protection	No impact
1.5	*Equal treatment requirement (in case of low private benefits of control)*	More M&As	No impact	More dispersion	No impact	No impact	No impact
2	***The Equal treatment principle***	Fewer M&As	Better protection	More dispersion	No impact	No impact	No impact
3	***Ownership and control transparency (Lower disclosure threshold)***	Fewer M&As	Better ex-ante protection	Ambiguous	Fewer M&As	Better ex-ante protection	Ambiguous
4	***The Squeeze-out Rule***	More M&As	Better protection	More dispersion	More M&As	Better protection	No impact
5	***The Sell-out rule***	Fewer M&As	Better protection	More dispersion	Fewer M&As	Better protection	No impact
6	***Ban on the deviation from the One share/One vote principle***	More M&As	Ambiguous (Less protection)	Ambiguous	More M&As	Ambiguous (Less protection)	No impact
7	***Breakthrough rule***	More M&As	Less protection	Ambiguous	More M&As	Less protection	Ambiguous
8	***Management neutrality and limitations on anti-takeover measures:***	More M&As	Ambiguous (Better protection)	Ambiguous	More M&As	Ambiguous (Less protection)	No impact
8.1	*Management is decision-taker, anti-takeover devices can be installed only when a bid occurs*	More M&As	Ambiguous	Ambiguous	More M&As	Less protection	No impact
8.2	*Management is decision-maker, anti-takeover devices can be installed prior to a bid*	Fewer M&As	Ambiguous	Ambiguous	Fewer M&As	Better protection	More concentration

6. Reforms of takeover regulation in Europe over the period of 1990-2004

The history of takeover regulation in Europe goes back to 1968 when the UK introduced a voluntary code, the City Code on Takeovers and Mergers in response to a series of large takeovers. Since then, the Code has been frequently amended. The two main provisions of the City Code are a mandatory bid rule with a threshold of 30 percent beyond which a tender offer becomes compulsory, and the prohibition to discriminate against certain shareholders. Other important provisions concern the actions of the bidder prior to the bid announcement, the information about the bid issued to the target shareholders, and the defensive measures available to the target. The Code also stipulates managerial neutrality as it prohibits management to take any actions against a takeover without shareholder consent.

Takeover regulation in Continental Europe was only put in place during the late 1980s following a dramatic increase in takeover activity. Many Continental European jurisdictions used the British City Code as a benchmark (Hopt (2002), and Berglöf and Burkart (2003)). Initially, Continental Europe came up with voluntary codes which were replaced by binding rules in the mid-1990s. However, even to date some countries have purely voluntary codes in place. In the late 1990s, there was a new wave of reforms in response to the fifth takeover wave. A third of these takeovers were cross-border transactions. The European Commission set up the High Level Group of Company Law Experts headed by Professor Jaap Winter to make recommendations on the harmonization of European corporate law, and takeover regulation in particular. In 2002, the Commission presented the first draft of the Takeover Directive based on the recommendations of the Group. This draft focused on the introduction of five provisions regarding: (i) a mandatory bid rule, (ii) the principle of equal treatment of shareholders, (iii) a squeeze-out rule and sell-out right, (iv) the principle of board neutrality, and (v) a break-through rule. The fifth provision of the proposed Directive met with substantial opposition from EU member states and was not approved.

While the European Commission attempted to harmonize takeover regulation at the European level, most member countries were already engaged in reforming their national takeover legislation. The dynamics of the European takeover reforms are presented in Figures E-3 to E-10. We classify all countries into six groups according to their legal origin and economic development, following La Porta et al. (1997). Countries from the former communist block are classified according to their (staged) accession to the European Union, as this event has probably an important impact on their legislative reforms. Figures E-1 and E-2 show an overview of the ultimate control in European countries in the late 1990s.[125] Since major takeover regulation reforms took place in the late 1990s, we predict how these ownership patterns may evolve as a result of the reforms.

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[125] Faccio and Lang (2002) argue that the ownership and control structure in Western countries was relatively stable over the 1990s. Hence, the ownership and control structures in Figures 1 and 2 are also representative for the early and mid
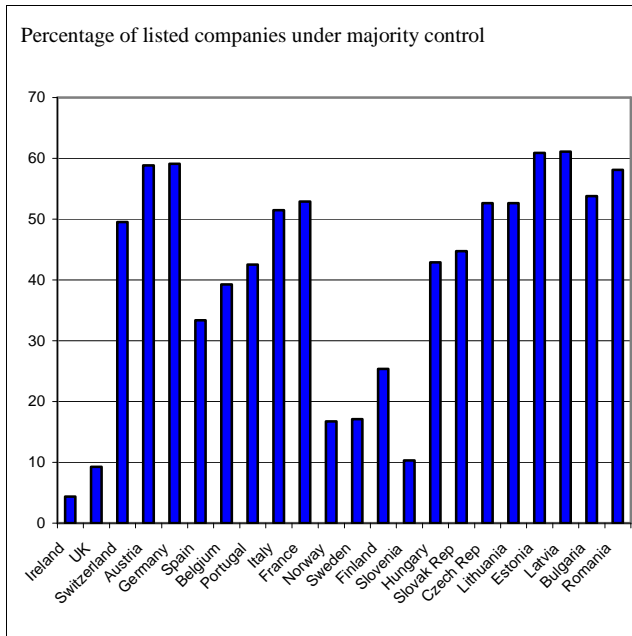
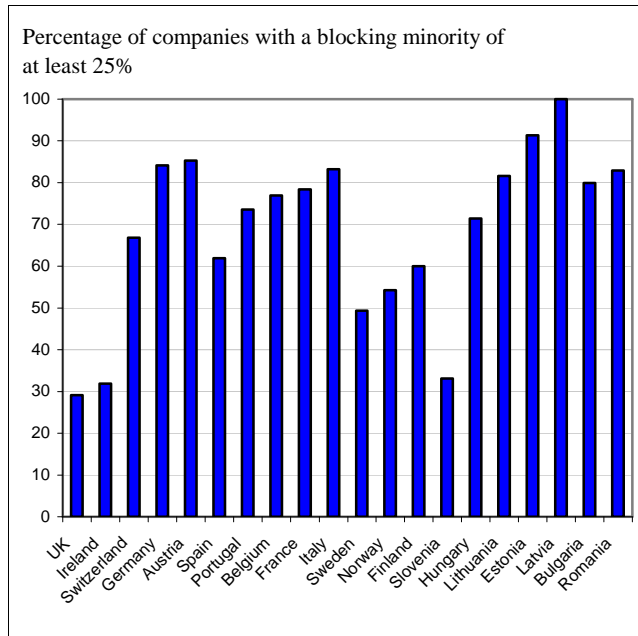Figure E-1. Percentage of listed companies under majority

Figure E-2. Percentage of listed companies with a blocking control minority of at least 25%

Data source: Faccio and Lang (2002) for the countries with law of English, German, French, and Scandinavian origin, the ECGI project "Corporate Governance & Disclosure in the Accession Process"(2001) for the EU accession countries.

Figures E-1 and E-2 show that the blockholder-based regime prevails in most of Continental Europe and is characterized by majority or near-majority holdings of stock held in the hands of one, two, or a small group of investors. In contrast, the market-based system, which is found in the UK and the Republic of Ireland, is characterized by dispersed equity. Although the difference in ownership between Continental Europe, on the one hand, and the UK and Ireland, on the other, is remarkable, there is also some variation in the percentage of companies under majority or blocking minority control across the Continental European countries. Thus, Figure E-1 shows that countries of Scandinavian legal origin have the lowest percentage of companies controlled by a majority blockholder whereas countries of German legal origin and recent EU accession countries (except for Slovenia) have the highest percentage. The percentage varies from just above 10 percent in Slovenia to more than 60 percent in Estonia and Latvia. Figure E-2 reports that the percentage of Continental European companies controlled by investors with blocking minorities of at least 25 percent is very high. The difference across countries is less pronounced though, as in almost all more than 50 percent of listed companies have a controlling blockholder. As discussed in sections 3 and 4, the effects of the reforms and their effectiveness may be different in each country given the differences

1990s. However, this is not a valid statement for the recent EU accession countries, which experienced a wave of privatisations in the early 1990s.

in control. However, different patterns of voting power also imply that different types of takeover provisions are likely to be introduced in the takeover law.
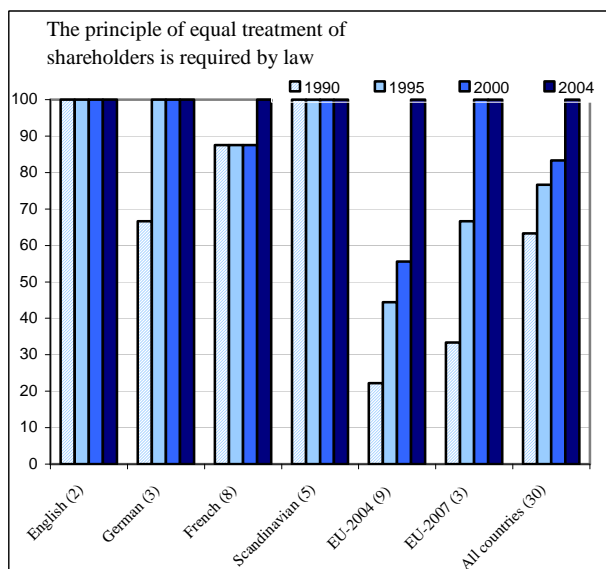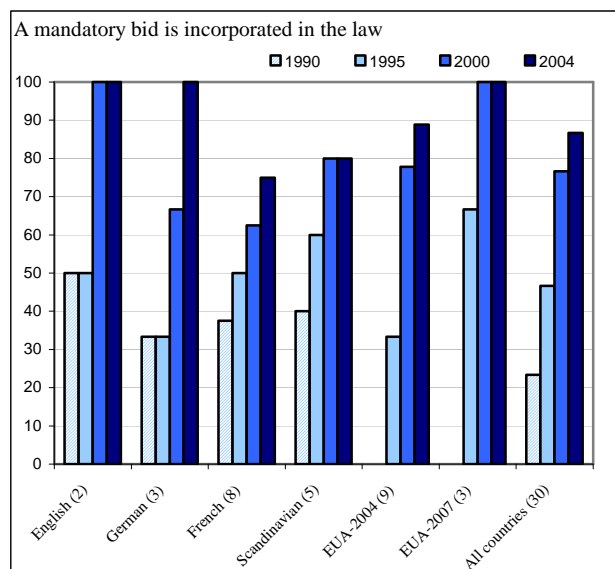
Figure E-3. Adoption of the mandatory bid rule

Figure E-4. Adoption of the equal treatment principle

Notes: Countries are grouped according to their legal origin following the classification by La Porta et al. (1997) and according to the EU enlargement process. Countries are grouped as follows: *English legal origin* (Republic of Ireland and the UK), *German legal origin* (Switzerland, Austria, Germany), *French legal origin* (Spain, Belgium, Portugal, Italy, France, The Netherlands, Luxembourg, and Greece), *Scandinavian legal origin* (Norway, Sweden, Finland, Denmark, and Iceland), *2004 EU Accession* (Slovenia, Hungary, Slovak Republic, Czech Republic, Lithuania, Estonia, Latvia, Poland, and Cyprus), *2007 likely EU Accession* (Bulgaria, Romania, and Croatia). The Y-axis shows the percentage of countries in each group that have adopted this rule. *Martynova and Renneboog (2004) corporate governance database.*[126]

Figure E-3 shows that the mandatory bid rule had been widely adopted across the different groups of countries by 2004. Resistance towards the rule remains in countries of Scandinavian (e.g. Sweden) and French (e.g. Luxembourg and the Netherlands) legal origin. Amongst the countries that became EU members in 2004, only Cyprus did not adopt it. All three candidates earmarked for EU membership in 2007 – Bulgaria, Croatia, and Romania – have already adopted the rule. Despite the widespread adoption of the rule, its settings vary substantially across the countries both with respect to the threshold and the price at which the offer must be made. The threshold varies between 20 percent and two-thirds of the voting capital, with the majority of countries having a threshold of one-third of the voting rights. However, a number of countries have not specified a threshold and instead require a mandatory bid as soon as control has been obtained. Moreover, Switzerland[127] allows shareholders of a potential target to choose whether to apply the mandatory bid rule or not. The rules on the fixing of the price in the mandatory offer also differ across jurisdictions. For example, the

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[126] The Martynova-Renneboog (2004) database is described in the Appendix.

[127] Art. 22(2) and 32(1) Loi sur les bourses. However, to use this option companies need to mention this option explicitly in the company's articles of incorporation.

UK[128] and Germany[129] require the price to be equal to the highest price paid for pre-bid purchases. Other jurisdictions have opted for a more flexible approach. In Italy, the price has to be equal to the average market price over the 12 months prior the bid announcement[130] whereas in Switzerland is has to be at 75 percent of the highest pre-bid market price.[131]
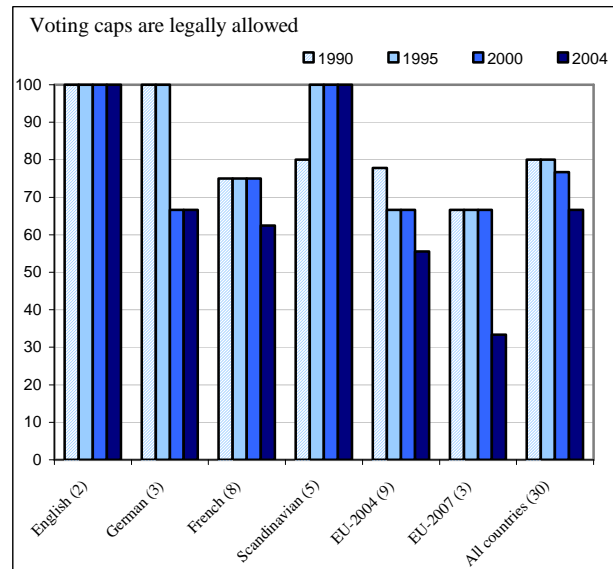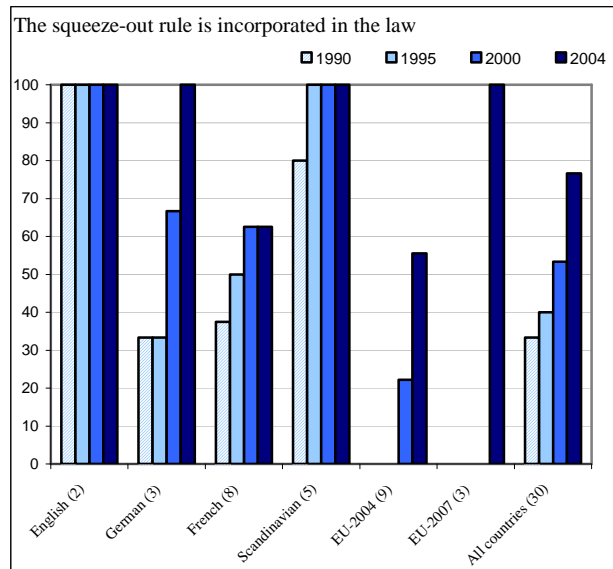
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The squeeze-out rule is incorporated in the law

☐1990 ☐1995 ▨2000 ■2004

100
90
80
70
60
50
40
30
20
10
0

English (2) — German (3) — French (8) — Scandinavian (5) — EU-2004 (9) — EU-2007 (3) — All countries (30)

</td><td>

Voting caps are legally allowed

☐1990 ☐1995 ▨2000 ■2004

100
90
80
70
60
50
40
30
20
10
0

English (2) — German (3) — French (8) — Scandinavian (5) — EU-2004 (9) — EU-2007 (3) — All countries (30)

</td></tr>
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Figure E-5. Adoption of the squeeze-out rule   *Figure E-6. The use of voting caps*

(See comments to the Figure E-3)

In contrast to the diversity in terms of the adoption and provisions of the mandatory rule, Figure E-4 reports that there is widespread consensus in Europe with respect to the principle of equal treatment of shareholders. In the US, there is no such consensus at the state level. Davies and Hopt (2004) report that two-tier offers, which violate the equal-treatment requirement, 'do not offend the provisions of the Williams Act in the US'.[132] The equal treatment requirement had already been adopted as a fundamental principle by almost all the Western European countries prior to the 1990s. During the 1990s, it was introduced in Switzerland[133] and in Central and Eastern European countries.[134]

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[128] Rule 9.5, 6, and 11 City Code.

[129] Par. 4 Übernahmegesetz – Angebotsverordnung and Par. 31 Übernahmegesetz.

[130] Art. 106(2) Legislative Decree 58.

[131] Art. 32(4) Loi sur les bourses.

[132] The Williams Act, 15 U.S.C. § 78a, prohibits first-come, first-served offers but not two-tier tender offers. The latter involve two parts: in the first tier offer, the bidder pays a premium above the market price for a controlling block, whereas in the second tier, the terms are much less favourable. Although this system mitigates the shareholders' hold-out problem in a tender offer and hence stimulates the takeover market, it also pushes shareholders to tender even if they believe the bid is inadequate. To resolve this problem, US companies resort to poison pills (Subramanian (1998)).

[133] Until 1992, the principle was unwritten, but generally recognized at the level of company law. As from the 1992-revision, it was incorporated in the law (art. 717 sec. 2 CO) in a qualified manner, providing for equal treatment under equal circumstances. Although the principle refers to the treatment of shareholders by the board of directors, it is

The pan-European acceptance of the equal-treatment principle can be regarded as the result of regulatory competition between the jurisdictions. Only the central European countries were lagging but have since 2001 all adopted this principle. Under the equal-treatment requirement, countries with a low ownership threshold triggering a mandatory bid are more likely to move towards dispersed ownership than countries that make a tender offer conditional on the acquisition of control. The recent trend to reduce the mandatory bid threshold in many European countries may result in some degree of convergence towards a market-based model.

According to Figure E-5, the squeeze-out provision is now commonly used in the English, German, and Scandinavian law countries. However, less than two-thirds of the French law jurisdictions had adopted the squeeze-out rule by 2004. About half the countries that joined the EU in 2004 also do not such a rule in place. However, it is likely that these countries will soon adopt the rule. As in the case of the mandatory rule, the provisions of the squeeze-out rule vary substantially across countries. Thus, the threshold beyond which a bidder can force any remaining shareholders to sell their shares ranges from 80 percent (in Ireland) to 95 percent (in Belgium, France, Germany and the Netherlands), with a threshold of 90 percent in the majority of countries. The provisions for the fixing of the price for the squeeze-out purchase also differ between the jurisdictions. Although the adoption of the squeeze-out rule may encourage more control transactions, its impact on the ownership structure in countries with concentrated ownership is likely to be small, as the private benefits of holding control in these countries remain relatively high (Dyck and Zingales, 2004). To achieve ownership dispersion, the regulator needs to make control more contestable and thus combine the rule with provisions that reduce the incentives to hold controlling blocks.

An interesting result arises from the analysis of the deviation from the one-share-one-vote principle. Figures E-6 – E-8 present the evolution of the adoption or rejection of voting arrangements in the form of non-voting shares, multiple voting shares, and voting caps, respectively. Figure E-6 shows the changes in the legal attitude towards voting caps. There is slow convergence towards the abolishment of voting caps. Voting caps limit the power of blockholders and may be a powerful takeover defence. Therefore, their abolishment in some European countries − such as those of French legal origin and the EU accession countries − is motivated by regulators wanting to stimulate the takeover market. However, banning voting caps in countries with concentrated ownership makes it impossible to cap the power of large new shareholders. Therefore, we project that the abolishment

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recognized as a general principle. At the level of stock exchange regulations, takeover offers have had to comply with the principle of equal treatment of shareholders (art. 24 sec. 2 SESTA) since 1998.

[134] For example, in Bulgaria, the principle is explicitly provided in Art.181, Para. 3 of the Trade Act of 2000. In Cyprus, Section 69A of the Companies Law which was introduced in 2003 provides that: "the shareholders of a class of shares of a public company shall be equally treated by the company". In the Czech Republic, the principle has existed since 2001 according to § 155/7 Commercial Code.

of voting caps in countries of French legal origin and the EU accession countries is likely to lead to even more concentrated voting power.
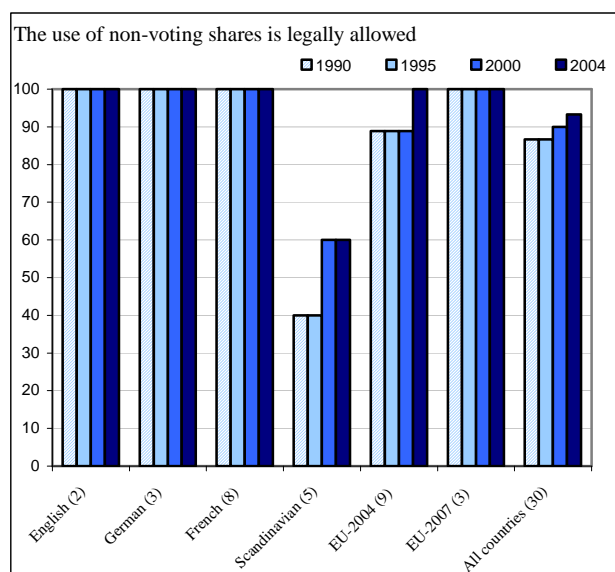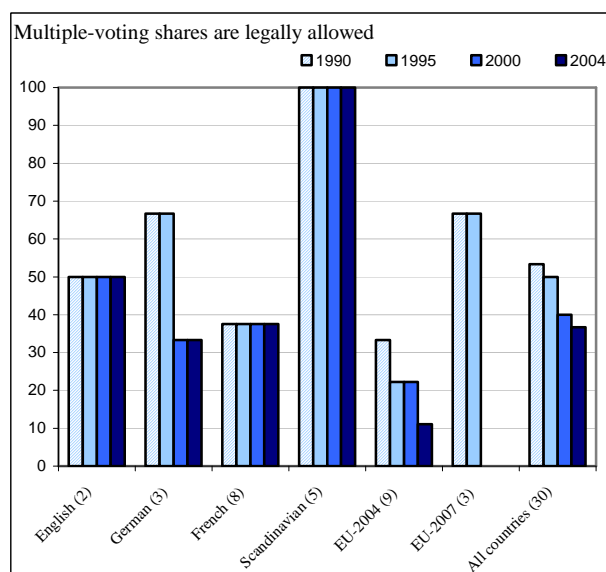

Figure E-7. The use of non-voting shares

Figure E-8. The use of dual-class and multiple voting shares

(See comments to the Figure E-3)

Most countries, with the notable exception of the Scandinavian ones, allow the issue of non-voting shares, mainly in the form of preference shares which benefit from a preferential treatment in terms of dividend payments and/or in the case of a liquidation. The shares issued by most Scandinavian companies are voting shares, although they may bear each a different number of votes. For example, the votes from B-shares in Sweden are typically one tenth of the votes from A-shares. Usually, the law restricts the issue of non-voting shares to a maximum percentage of the equity. This percentage varies from 25 to 100 percent with 50 percent in the majority of the countries. In some countries, such as the UK, corporate law does not regulate the issue of differentiated voting shares, but the London Stock Exchange has discouraged such issues. This gentlemen's agreement is well abided by as 'it is just not cricket' to issue non-voting shares (Franks, Mayer and Rossi, 2004).

In contrast to the wide acceptance of non-voting shares (Figure E-7), the use of dual class and multiple voting shares is declining (Figure E-8). By 2004 only one third of the countries allowed shares with multiple voting rights, down from more than one half in the early 1990s. This trend towards abolishing multiple voting shares may be seen as a step towards similar corporate governance practice, the development of efficient M&A market, and greater ownership dispersion in the long run.

The European Commission's proposed Takeover Directive received much resistance mainly as a consequence of the proposed break-through rule. Although Figure E-9 may suggest that overall

there is increasing adoption of the rule, this is mainly due to the countries that have recently joined the European Union. The only other country that has adopted the break-through rule is Italy. However, the break-through rule in Italy only applies to contractual agreements between shareholders, since shares cannot bear multiple voting rights. Pending a takeover bid, any shareholder who is willing to tender has the legal right to withdraw from voting or transfer agreements binding his shares. No minimum ownership percentage is required to qualify for this break-through rule. In addition, as outlined in sub-section 5.6, the rule may promote the creation of more complex ownership and control structures such as pyramids and cross-shareholdings thereby cancelling out most of the benefits from the break-through rule.
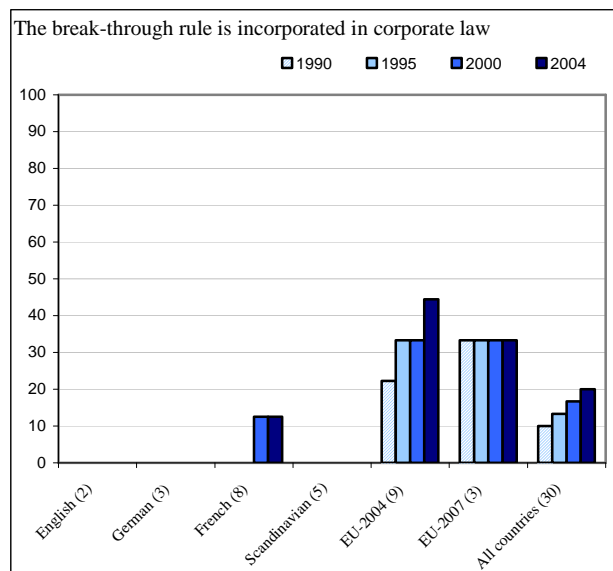
Figure E-9. Adoption of the break-through rule
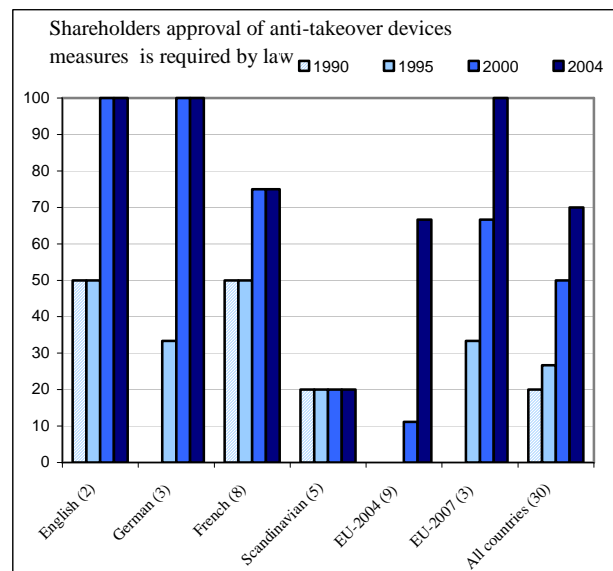
Figure E-10. Adoption of the requirement of shareholders' approval to install anti-takeover measures

(See comments to the Figure E-3)

Figure E-10 refers to one of the hotly debated issues regarding the distribution of decision-making in companies, namely the adoption of anti-takeover measures. Although some countries have opted for the American-style approach by allowing managers to apply anti-takeover devices when necessary, there is a clear move in Europe towards the British model which gives decision power to the shareholders. In general, in most countries, the board of directors may only take anti-takeover measures after receiving the shareholders' approval. However, there is variation with respect to the point in time when the adoption of anti-takeover measures can be solicited. For example, shareholders in Germany can vote for defence measures prior to a takeover bid, while in the UK they can only do so after the bid has been announced. General Principle 7 of the City Code 'prohibits any action to be taken by the board of the offeree company in relation of the affairs of the offeree

company, without the approval of the shareholders in general meeting'. The rule does not prohibit corporate actions which have a frustrating effect on a takeover attempt, but it does require that such actions be approved by the shareholders at a general meeting and, crucially, that the approval be given 'in the face of the bid' (Davies and Hopt (2004)). There is a trend towards reducing the power of management in takeover-related decision-making. This suggests that the shareholder-centred view of corporate governance is receiving more widespread recognition. Consequently, this may result in convergence, albeit at a very slow rate, towards the market-based model as predicted by Hansmann and Kraakman (2000).

7. Conclusion

This chapter argues that the effectiveness of the various functions of the takeover regulation depend on the corporate governance systems they are part of. However, at the same time, takeover regulation also has a significant impact on the efficiency of the corporate governance system. Therefore, a regulator who wants to reform takeover regulation needs to place this reform in the wider context of reforming corporate governance as a whole. Over the past 10 years, the European Commission has attempted to harmonize takeover regulation to create a level-playing field for an international market for corporate control. These attempts have nevertheless met with strong opposition from national lawmakers arguing that a unified takeover regulation may harm their national corporate governance system. Consequently, the proposed Takeover Directive was not adopted in 2004. To date, no consensus has been achieved about the best corporate governance system and whether individual EU member countries should change their regulation in order to move to a common corporate governance system.

This chapter shows that, despite all the controversies, the EU countries have individually undertaken steps towards the convergence of takeover and corporate governance regulation. Currently, the European countries agree that the equal treatment rule constitutes a fundamental principle of corporate law. There is also gradual convergence towards the adoption of the mandatory bid and squeeze-out rules. The introduction of lower thresholds for the disclosure of control as well as the abolishment of multiple voting rights, while allowing non-voting shares, may also be considered as further signs of convergence towards the Anglo-American system of corporate governance.

However, it is important to note that similar regulatory changes may have very different effects within different corporate governance systems. For example, while in some countries the adoption of a specific takeover rule may lead towards more dispersed ownership, in others it may further reinforce the blockholder-based system. Moreover, there are still major differences across Europe in terms of the provisions of the mandatory bid rule (threshold and minimum offer price), the squeeze-out rule, and the distribution of the decision power between the board of directors and

shareholders. Therefore, although there is some evidence of increasing convergence, this does not necessarily imply that the corporate governance regimes are truly converging towards a single system.

CHAPTER 7.

A CORPORATE GOVERNANCE INDEX: CONVERGENCE AND DIVERSITY OF NATIONAL CORPORATE GOVERNANCE REGULATIONS

1. Introduction

Triggered by the seminal work of La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1998; hereafter LLSV), the economic effects of corporate governance regulation have received notable academic attention in recent years. The new stream of literature on law and finance does a comparative analysis of institutional frameworks around the world and studies their impact on economic behaviour and on the governance of firms. Although the importance of regulation on economic activities has been stressed since the late 1930s (see e.g. Coase, 1937; Pigou, 1938), LLSV have moved this topic to the top of the research agenda by documenting empirically the relationship between the law and economic growth, the development of markets, and the governance of firms. Importantly, LLSV develop the tools that enable researchers to compare institutional environments across countries and to study empirically the effects of corporate regulation. These tools comprise, amongst others, a country classification by legal origin and indices that characterize the quality of regulatory provisions covering the protection of corporate shareholders and creditors, as well as law enforcement.

Nowadays, virtually every cross-country study employs the LLSV legal origin classification and corporate governance indices. However, the LLSV indices have some limitations. First, the indices are static and refer to national legal environments in 1995. In the late 1990s, many countries have undergone substantial reforms of their corporate legislations. It is therefore likely that the LLSV indices of 1995 no longer reflect the true differences in national legal systems since 1996 and hence require an update.

A second limitation of the LLSV corporate governance indices is that the authors use a comparative approach to construct them. LLSV opt for the US corporate law as the reference legal system and identify the key legal provisions in the governance of US companies. Subsequently, they

verify whether the same types of provisions are present in the law of other countries. It follows that countries with legal systems most closely resembling that of the US receive the highest score on the LLSV rating. This approach, however, typically ignores the regulatory principles that prevail in other countries but not in the US. Moreover, the system of corporate governance in the US is characterized as a shareholder-based system in which the main objective of corporate law is to protect (atomistic) corporate investors from being expropriated by the firm's management. In contrast, the systems prevailing in most European and Asian countries are characterized as stakeholder-based systems (such as the blockholder-oriented, labour-oriented, or state-oriented systems). In these countries, the expropriation of investors by the management is typically prevented via monitoring by the firm's large shareholders, creditors or employees such that there is less need to address the problem at the regulatory level. It is therefore not surprising that most of the countries with a stakeholder-based system only have a low score on the LLSV shareholder rights protection rating. What is however vital in these countries is how well the law protects the interest of corporate investors from being expropriated by the controlling stakeholders (i.e. larger shareholders, employees, the state). This question goes beyond the scope of the LLSV index.

In this paper we address the limitations of the LLSV corporate governance indices. First, we develop three new corporate governance indices that reflect the quality of national laws aimed at protecting (i) corporate shareholders from being expropriated by the firm's management, (ii) minority shareholders from being expropriated by the large blockholder, and (iii) creditors from being expropriated by the firm's shareholders. When constructing the indices, we depart from the comparative approach employed by LLSV and use a functional approach instead. That is, we identify all major provisions of corporate laws by country and classify them according to the degree of protection they offer to the above mentioned principals. Subsequently, we quantify the regulatory provisions using three indices that characterize the effectiveness of the legal system in reducing the three basic agency problems: those arising between the management and the shareholders, between majority and minority shareholders, and between creditors and shareholders. The advantage of the functional approach is that it covers all regulatory provisions currently in existence in all European countries and the US and allows us to construct indices that capture both the weak and strong aspects of the various corporate governance regimes.

Second, we empirically document the evolution of corporate governance regulations for all (30) European countries and the US. We analyse whether regulatory convergence has been started, and, if so, detect the main patterns of the converge process. Using the three indices we examine how corporate governance regulation has changed in countries over the past 15 years. The study of the evolution of corporate governance regulations is appealing because it contributes to the ongoing debate on whether a single system of corporate governance is likely to develop (see e.g. McCahery et al. 2002). To our best knowledge, this is the first study that intends to address this question empirically.

The analysis in this paper is based on a unique corporate governance database that comprises the main changes in corporate governance regulations in the US and all European countries between 1990-2005. The database is based on studying various corporate legislations, a questionnaire sent to leading corporate governance specialists as well as direct interview with these specialists. The questionnaire is on the various aspects of the corporate governance regimes and their evolution since the early 1990s. The questionnaire contains 55 questions that cover the most important provisions of company law, stock exchange rules, and bankruptcy and reorganization law at both the national and supranational level. In particular, the questions cover the following: (i) shareholder and creditor protection regulation, (ii) accounting standards, (iii) disclosure rules, (iv) takeover regulation (mandatory bid, squeeze-out rule, takeover defence measures, etc.), (v) insider trading regulation, (vi) regulation regarding the structure of the board of directors and voting power distribution, (vii) and adoption of codes of good practice. In total, about 150 legal experts throughout Europe and the US have contributed to our database on the changes in corporate governance regulation (see Data Appendix 2 in the end of the book).

The reminder of the paper is organized as follows. Section 2 discusses the role of corporate regulation. Section 3 describes our unique database on corporate law reforms in 30 European countries and the US. Section 4 discloses the compositions of the corporate governance indices. Section 5 documents the dynamics of corporate governance regulation reforms and predicts the consequences of these reforms for the (lack of) evolution towards a single corporate governance system. Section 6 concludes.

2. The role of corporate governance regulation

2.1. Agency problems between corporate constituents

A typical public corporation represents a legal entity with limited liability, transferable shares, delegated management under a board structure, and investor ownership (Hansmann and Kraakman, 2004). Together, these characteristics make a corporation the most attractive form of business organization. However, they also generate the potential for agency problems.

The conflicts of interests between management and shareholders frequently arise in companies with a dispersed ownership structure. In these firms, small shareholders cannot effectively manage the firm due to coordination problems and hence have to delegate the control over the firm to professional managers. However, the separation of ownership and control leads to a divergence of interests between the managers and shareholders (Berle and Means, 1932). The managers may forgo the shareholders' wealth maximization objective and undertake actions which maximize their personal interests but not the value of the company. Research on corporate governance shows that shareholders may prevent the misuse of corporate assets by managers either

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by aligning the managerial interests with their own through executive compensation contracts or by effectively monitoring managerial actions (see e.g. Grossman and Hart, 1980; Shleifer and Vishny, 1986; Becht et al., 2005.). Since the coordination problem among small shareholders does not allow them to effectively monitor the management, they have to rely on external monitoring via the market for corporate control (Fama and Jensen, 1983; Jensen, 1988).[135]

The conflict of interests between management and shareholder is less severe in companies with concentrated ownership structure. In these firms, the controlling shareholders have strong incentives to monitor management and replace it in poorly performing companies (Franks, Mayer and Renneboog, 2001). However, the presence of a controlling shareholder may induce another agency problem: the potential opportunistic behaviour of the large blockholder towards minority shareholders (see e.g. Faccio and Stolin, 2004). The activities aimed at expropriating minority shareholders are reduced when the management is held accountable to the interests of all shareholder including minority shareholders. Companies may formulate such accountability in the bylaws of the company e.g. by ensuring the delegation and concentration of control to a board of directors which is independent from the controlling shareholder; by aligning managerial interests with those of (minority) shareholders through managerial compensation contracts; and by clearly defining the fiduciary duties of managers and directors.

The legal entity status of public corporations and limited liability of their shareholders may engender another potential conflict of interest, namely that between creditors and shareholders.[136] The equity of a leveraged firm can be viewed as a call option on the firm's assets whose value increases with the volatility of future cash flows (Black and Scholes, 1973). This means that the management can maximize shareholder wealth by increasing the risk of the projects it invests in, and hence re-distribute wealth from creditors to its shareholders. This conflict of interests between creditors and shareholders is likely to be resolved when the creditors are able to perform effectively monitor the corporate activities.

2.2 Why do we need corporate governance regulation?

It is in the interests of companies and their management to implement mechanisms that mitigate the agency problems mentioned above. Companies that can credibly commit themselves to act in the best interests of their constituents benefit from lower costs of equity and debt capital, labor, and other inputs and from a higher value of their products or services to clients (Becht, Bolton

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[135] Hostile takeovers can target poorly performing firms and replace poorly performing management. The threat of losing their jobs and perquisites provides managers with an incentive to focus on shareholder objectives.

[136] The legal status of the company entails that creditors are first in line in the absolute priority ranking and hence have the first claim on the corporation's assets while the shareholders are residual claimants. Limited liability implies that the shareholders are not personally liable for the debt obligations of the corporation. For more details see Hansmann and Kraakman (2004).

and Roell, 2005). The mechanisms available to companies to resolve the agency problems include managerial compensation contracts, (hostile) takeovers, concentrated ownership structures, delegation to and concentration of control by the board of directors which acts independently from executive directors and controlling shareholders, and clearly defined in corporate bylaws fiduciary duties. However, if companies were able to provide adequate protection to their investors, regulatory intervention is unnecessary. This raises a question as to why we need corporate governance regulation aimed at protecting the rights of corporate (minority) shareholders and creditors?

The theoretical literature gives a number of reasons. First, regulatory intervention helps markets to achieve the maximization of social welfare rather than the welfare of individual investors (see e.g. Pigou, 1938). To illustrate this in the context of corporate governance regulation, consider an example of the disclosure requirements related to corporate activities. In the absence of the disclosure requirements, managers may be tempted to conceal some details of the projects (such as R&D spending) in which their company is involved for perfectly legitimate reasons, e.g. to keep their competitors uninformed and gain a competitive advantage in the future. However, more detailed information about corporate projects allow investors to assess the corporate growth potential better and to invest their money into companies that can generate the highest returns. Therefore, if all companies were to conceal information about their activities, a more inefficient allocation of capital would arise, leading to lower economic growth. Hence, a re-distribution of wealth between competing companies caused by a higher level of disclosure seems less harmful for the economy than the misallocation of capital caused by the lack of transparency. As such, mandatory rules that impose more disclosure enable economies to achieve a more optimal outcome.

The second reason for adopting a specific corporate governance regulation is that it enables companies to commit credibly to a higher quality of governance (Becht et al., 2005). Even if companies initially design efficient governance rules, they may break or alter them at a later stage. Investors anticipate this and are willing to provide firms with funds at lower costs only when companies find ways to commit credibly to good governance. However, credible pre-commitment mechanisms may be expensive or unavailable in countries lacking an effective institutional framework (Doidge et. al., 2004). For instance, a well-functioning infrastructure (in terms of internal control structures, audit mechanisms, voting procedures at the annual meetings etc.) is required to enable investors to verify the information that companies disclose (see e.g. Black, 2001).[137]

The importance of corporate governance regulation for corporate activities and economic growth has been further emphasized in a growing number of empirical studies. These papers show that a corporate governance regime has a significant impact on the availability and cost of capital, corporate performance, and the distribution of corporate value between the firm's stakeholders:

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[137] For example, investors are able to sue a company if it had concealed particular information that is required to be reported by law. It would be a difficult task for investors to prove corporate negligence in the absence of mandatory disclosure requirements.

shareholders, creditors, employees, consumers, and suppliers. Weak legal environment combined with weak enforcement of the law distorts an efficient allocation of resources, undermines the ability of companies to compete internationally, and hinders investment and economic development (see e.g. Levine, 1998, 1999; La Porta et al., 2002; Djankov et al., 2004).

2.3 Evolution of legal systems and corporate governance regimes

Given the beneficial impact of corporate governance regulation (as documented above) on economic growth, the development of markets, and the governance of firms, a natural question to ask is whether or not a particular national legal system has a competitive advantage over other legal systems, and if so whether the alternative regimes ought to converge towards it.

In this extensive body of research, there is yet no consensus as to the best system of corporate law (for an overview of this literature see Goergen et al., 2005). Some law and economics academics proclaim the superiority of the UK and US legal system, characterized by a focus on shareholder value and good shareholder protection. There are also supporters of the alternative legal systems characterized by a focus on the welfare of employees, creditors, and other types of stakeholders and weak shareholder protection. They claim that the long-term interests of shareholders and stakeholders are not necessarily at odds, such that the different types of governance regimes may produce similar outcomes in terms of long-term economic growth (Bratton and McCahery, 2000).

Bebchuk and Roe (2000) argue that the direction of legal reforms is typically pre-determined by initial institutional structures in a country. In particular, ownership and control concentration is an important factor that affects the role and function of corporate legislation and hence the direction of its reforms. This is because the degree of ownership and control concentration plays a key role in the relationships between the different corporate stakeholders. In countries where widely-held companies prevail, the main function of corporate governance regulation is to protect shareholders from being expropriated by the management. In countries where a vast majority of companies have a concentrated ownership and control structure, the function of corporate governance regulation is to minimize the extent of agency problems between majority and minority shareholders and that between shareholders and creditors.

The differences in the role and functions of corporate governance regulation across countries with dispersed and concentrated ownership structures imply that the convergence of corporate governance regulations towards a single legal system may not be an issue. However, legal convergence is not a necessary (nor sufficient) condition for achieving more harmonisation of corporate governance systems. The reason is that a corporate governance system is a broader concept than corporate governance regulation and covers a broader set of institutional settings typically characterized by the quality of legal protection of corporate constituencies, concentration of ownership and control, and the development of capital markets.

Bebchuk (1999) shows that, in the presence of large private benefits of control, better protection of shareholders is unlikely to affect the degree of ownership concentration. Even if better protection from the expropriation by the management were introduced, an incumbent blockholder is unlikely to sell his stake because a third party acquiring a controlling block is unable to compensate him for his private benefits of control. Thus, where private benefits of control are high, regulatory reforms aimed at improving investor protection are likely to reinforce the existing ownership and control structures.

Roe (2002) proposes an alternative scenario. In his view, if the costs of monitoring management are high relative to the private benefits of control a blockholder enjoys, better legal protection from expropriation by the management may lead to a shift from concentrated to dispersed ownership. This shift may be further enhanced by some other drawbacks of concentrated control, such as the costs of low liquidity and undiversified risk. We conclude that corporate law reforms that improve investor protection are likely to lead towards more dispersed ownership provided that private benefits of control are relatively low.

Table F-1. Reforms of corporate governance regulation and their expected impact on ownership and control within a particular corporate governance system

Initial characteristics of the system	Corporate governance regulation reforms	Expected effect on the ownership structure
▪ Low minority shareholders protection (High private benefits of control)	Improve in investor protection	Remains concentrated
▪ High minority shareholders protection (Low private benefits of control)	Improve in investor protection	More dispersed
▪ Low investor protection (High managerial discretion)	Decrease in private benefits of control	Remains concentrated
▪ High investor protection (Low managerial discretion)	Decrease in private benefits of control	More dispersed

It also follows from Bebchuk (1999) and Roe (2002) that, when investor protection is already high, reforms aiming at reducing private benefits of control may bring about ownership dispersion. However, if the management has substantial discretion to apply anti-takeover measures, the preferred ownership distribution may shift towards a more concentrated structure even if private benefits of control are curbed. Table F-1 summarizes the above conjectures.

In sum, this section has shown that the adoption of a unified corporate governance regulation by countries with different initial institutional structures (in terms of voting structure, ownership and control, capital market development etc.) may not necessarily lead to the convergence of their legal

corporate governance regimes. However, the adoption of country-specific corporate legislations may induce the convergence of wider corporate governance systems.

3. Corporate governance database

In this paper, we explore a unique corporate governance database that comprises the main changes in corporate governance regulation in the US and all European countries (including countries from Central and Eastern Europe) over the last 15 years. The database is based on the study of various corporate governance regulations, on the results from a detailed questionnaire sent to more than 150 legal experts, and on direct interviews with some of these experts.

Our approach can be summarized as follows: based on corporate legislation, corporate governance codes and the scientific literature, we have drafted a detailed set of questions about the main aspects of corporate governance regulation that applies to listed companies. A final set of 50 questions was put to leading corporate governance experts (mostly academic lawyers but also some practitioners from law firms). As we focus on listed companies, we have asked the contributors to this project to consider soft law, comprising: (i) (hard) corporate law; (ii) stock exchange regulations (listing requirements); (iii) codes of good practice provided there is a legal basis for these codes (the law refers to a code of good practice which is itself not incorporated in the law); and (iv) corporate practice.[138] The names and affiliations of the corporate governance experts who have contributed to the mapping of the corporate governance regulation of their own countries are presented in Data Appendix 2 (in the end of the book).

Somewhat to our surprise, our straightforward questions on the presence or application of specific corporate governance regimes frequently received conflicting answers. Consequently, we have re-contacted the involved experts to ask additional questions and have sought the advice of additional experts in order to reach clear answers. Still, from this experience, we must conclude that the current corporate governance regulations (corporate law, legally binding codes, and stock exchange regulations) leave room for interpretation and sometimes cause confusion even among legal experts.

4. Corporate Governance indices

As discussed in section 2, corporate law plays an important role in mitigating the three central conflicts of interest between the main corporate constituencies: the agency problems which

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[138] In some cases, corporate practice deviates from corporate law. For instance, the regulator in the UK allows that firms issue shares with and without voting rights. Still, since the early 1990s virtually all listed firms on the London Stock Exchange have shares outstanding with voting rights as the issuance of non-voting shares was frowned upon by the stock exchange. Hence, in practice, the UK-system hinges on the 'one-share-one-vote' principle. We accept this principle as a corner stone concept of the UK corporate governance regime.

arise between the management and the shareholders, between majority and minority shareholders, and between creditors and shareholders. In this section, we provide a concise overview of the existing corporate governance regulations in Europe and the US. We classify the main provisions of the existing regulations according to their efficiency in mitigating the conflicts of interests within a corporation. Based on this classification, we quantify the regulatory provisions for each country and combine them into three indices that characterize how well national legislations minimize the extent of the agency issues.

The economic literature suggests two main approaches to resolve principal-agent problems: (i) create incentives such that agents act in the interest of their principals; and (ii) enhance the disciplining power of principals (see e.g. Becht et al., 2005). To implement these approaches, the law can deploy a number of governance strategies. Hansmann and Kraakman (2004) suggest the following classification of such strategies: (i) strengthening the appointment rights of principals, (ii) reinforcing the decision rights of principals, (iii) augmenting the trusteeship, (iv) enhancing corporate transparency, and (v) adopting an affiliation strategy.[139] The appointment rights strategy regulates shareholders' power to select or remove directors. The decision rights strategy grants shareholders with the power to intervene and initiate or ratify managerial decisions. The trusteeship strategy allows shareholders to appoint an independent body (a trustee) that will represent their interests in the firm and monitor managers. The transparency strategy seeks to eliminate conflicts of interests by enforcing strict disclosure requirements on corporate policies and contracts directly related to managers. Finally, an affiliation strategy sets the terms on which shareholders affiliate with managers. These typically involve shareholder rights to entry and exit on fair terms. The strategies are not limited to reducing the agency problem between shareholders and managers, but can also be deployed to address any other agency problems (e.g. between minority and majority shareholders or between shareholders and creditors).

The analysis of regulatory provisions within the framework of the above governance strategies enables us to understand better how corporate law works in a particular country and which strategies regulators adopt to achieve their goals. Hence, we classify the regulatory provisions (i) by type of agency problems and, (ii) by governance strategies within each type of agency problem. We model our corporate governance indices as a sum of sub-indices that indicate the scope of legal protection through different strategies.

4.1 Regulatory provisions addressing management-shareholder relations

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[139] There are a number of other strategies open to the law, such as a reward strategy that seeks to alter managerial incentives to act in the interests of shareholders. However, these strategies are usually applied by companies directly rather than imposed by the law. We therefore do not consider them in our legal indices.

When shareholders have limited power, agency problems may be substantial: management may then pursue their own interests (among others; corporate growth at the expense of value creation, excessive remuneration, value-reducing mergers and acquisitions (M&As) or a so-called 'empire building' strategy). These managerial objectives may be detrimental to shareholders' interests (which is corporate value or getting a fair return on their investment). To assess the relative shareholder power granted by law, we study the regulatory provisions that aim at mitigating managerial opportunistic behavior. Such provisions grant shareholders the right to appoint and dismiss the board of directors and to control most of the important corporate decisions (for instance, on equity issues or takeovers). We also consider the regulation that requires corporate transparency, and demands that the board of directors acts on behalf of the shareholders and effectively monitors top management.

4.1.1 The appointment rights strategy

Appointment and replacement rights enable shareholders to shape the basic structure, power, and the composition of a firm's internal governance structure. Voting rules and requirements on the board's composition are the main components of these shareholder rights.

Among the voting rules, we distinguish between the requirements for the nomination to the board by shareholders, the voting procedures (whether or not proxy voting by mail is allowed, whether or not shareholders are required to register and deposit shares prior to the general meeting), and restrictions imposed on the length of directors' contracts. With their right to elect the directors, shareholders can affect the composition of the board. This power should ensure the board's responsiveness to shareholder interests. Some jurisdictions like the Netherlands restrict shareholders' election power in order to ensure the representation of labor interests in the boardroom. However, labor representation may erode shareholder power. A similar problem arises when a jurisdiction mandates employee representation on the board (as is the case in Germany, Luxembourg, and Norway). The presence of employee representatives (co-called codetermination) on the board reduces the power of directors elected by shareholders which may make it more difficult for them to implement corporate strategies in the best interest of shareholders.

Whereas codetermination redistributes the power from shareholders to employees, cross-shareholdings between two firms increase the relative power of management. Company's shares held by its subsidiary (or a firm in which the company has a controlling stake) are typically more under the discretion of the company's management. The management may use these shares to affect corporate decisions that are to be approved by the shareholder assembly (board members' election, in particular) to its own benefit. This makes the agency problems between management and shareholders more severe. Regulatory restrictions on cross-shareholdings are seen as an instrument mitigating these potential distortions. We expect shareholder interests to be better protected in

countries where cross-shareholdings are addressed at a regulatory level and limits are imposed on share stakes held by a subsidiary in its parent firm.

When shareholders cannot vote by mail and are required to register and/or deposit shares prior to the meeting, their participation in management elections may be substandard and may augment inside managers' power to appoint their own candidates. The requirement to register[140] and block[141] shares several days prior to the general meeting is seen as a barrier for many shareholders to participate in the meeting, and decreases shareholders' participation in corporate decision-making. Therefore, we consider the election rules that enable shareholders to send their votes by mail and prohibit companies to require share deposits prior to the meeting as instruments that ensure better representation of the shareholder interests in the boardroom.

Restrictions on the length of managerial contracts encourage shareholders to assess managerial performance on a regular basis and replace board members when they do not satisfy shareholder requirements. Long-term contracts with board members are seen as a barrier to replace inefficient directors. The shorter the contractual tenure, the more incentives directors have to act in the interests of shareholders in order to be re-elected for another term[142]. In countries where the mandatory frequency of managerial rotation is high, the management-shareholders conflict of interests is likely to be less pronounced.

We consider the regulatory provisions mentioned above to be important legal mechanisms that grant shareholders appointment and replacements rights. We therefore quantify these provisions into an index capturing the efficiency of appointment and replacement rules that align the interests of management and shareholders. The components of the index and their coding are given in Table F-2. A higher index score indicates higher likelihood that management acts in the interest of shareholders.

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[140] In many Continental European countries, bearer shares are issued. Therefore, companies may require the shareholders to register prior to a general annual meeting such that they will be able to participate to the meeting.

[141] Companies may require shareholders to deposit their shares several days prior to a general annual meeting such that investors that acquire shares during the deposit period are unable to participate in the meeting. This way, firms can prevent strategic trades in shares (votes) in the period around the meeting. .

[142] However, short-term contracts have a negative impact on managerial incentives to focus on long-term investment projects. Managers that anticipate to be fired in the end of their term are more likely to focus on short-term projects and short-term profits. Therefore, very short contracts may be undesirable.

Table F-2. Methodology employed to construct corporate governance regulation indices

The table shows how specific regulations are quantified to construct three corporate governance regulation indices: the shareholder rights protection index, the minority shareholders protection index, and the creditor rights protection. Some regulatory aspects are incorporated in several indices.

1. *The shareholder rights protection index (Max=32)* reflects the shareholders' ability to mitigate managerial opportunistic behavior. The index is constructed by combining the following 4 sub-indices:

1.1 The appointment rights index (Max=12) is based on the rules to appoint and replace executive and non-executive directors. It measures the degree of alignment of the interests of management and shareholders. The regulatory provisions are quantified as follows:
- Employee representation: 0 if required, 2 if not.
- Nomination to the board by shareholders: 2 if required, 0 if not.
- Tenure on the board: 0 if more than 4 years, 1 if 4 years, 2 if less then 4 years
- Cross-shareholdings:
  o Cross-shareholdings between 2 independent companies: 1 if regulated, 0 if not.
  o Maximum shareholding of a subsidiary in its parent company: 1 if regulated, 0 if not
- Election rules:
  o Proxy voting by mail: 2 if allowed, 0 if not
  o Requirement to Deposit/Register shares prior to a general meeting:
    ⇨ Bearer shares: 0 if deposit is required, 1 if only registration of shares is required, 2 if none is required
    ⇨ Nominal shares: 0 if deposit is required, 2 if deposit requirement is forbidden

1.2 The decision rights index (Max=8) captures the shareholders' ability to mitigate managerial discretion. The decision rights index cover regulatory provisions that mandate direct shareholder decision-making. The regulatory provisions are quantified as follows:
- Shareholders approval of anti-takeover defense measures: 2 if required, 0 if not.
- Shareholders approval of preemption rights: 2 if required, 0 if not.
- Percentage needed to call for extraordinary meeting: 0 if no rule or more than 20%, 1 if 20% or less but more than 5%, 2 if 5% and less.
- Voting caps: 0 if allowed, 2 if not.

1.3 The trusteeship index (Max=5) measures the efficiency of the board of directors in monitoring the actions of CEOs. The following regulatory provisions are quantified as follows:
- Board independence:
  o 2 if CEO cannot be the chairman of the board of directors (in 1-tier board structure), 0 otherwise
  o 2 if the overlap between management and supervisory board is forbidden (in 2-tier board structure), 0 otherwise
- Employee representation: 0 if required, 2 if not.
- Separate board of auditors: 1 if required, 0 otherwise

1.4 The transparency index (Max=7) is based on the quality of information about company, its ownership structure, and management available to investors
- Requirement to disclose managerial compensation: 0 if not required, 1 if required on aggregate basis, 2 if required on individual basis.
- Requirement to disclose any transactions between management and company: 2 if required, 0 if not
- Frequency of financial reports: 0 if once per year, 1 if twice per year, 2 if more than twice per year
- Comply or explain rule: 1 if the requirement is present, 0 otherwise

The higher each index, the better is the protection of the shareholders.

2. *The minority shareholders protection index (Max= 27)* is based on the regulatory provisions aimed at increasing the relative power of the minority shareholders in a context of strong majority shareholders. The index is constructed by combining the following 4 sub-indices:

4.1 Minority shareholders appointment rights index (Max=5) is based on the appointment rights that can be used to protect minority shareholders. These include rights to reserve seats on the board of directors for minority shareholders or to limit voting power of large shareholders. The regulatory provisions are quantified as follows:
- Minority representation on the board: 2 if required, 0 otherwise.
- Voting caps limiting power of large shareholders: 1 if voting caps are allowed, 0 if not.
- One-share-one-vote rule: 0 if both multiple voting rights and non-voting shares are allowed; 1 if one of the two is allowed; 2 if none is allowed.

4.2 Minority shareholders decision rights index (Max=4) captures the ability of minority shareholders to affect fundamental corporate transactions that require a shareholder vote. The regulatory provisions are quantified as follows:

- Supermajority requirement for approval of major company's decisions: 0 if 50% or less; 1 if more then 50% but less then 75%; 2 if 75% or more
- Percentage needed to call for extraordinary meeting: 0 if the rule is not present or required percentage is 20% or more; 1 if the required percentage is between 20 and 5%; 2 if the percentage is 5% or less.

4.3 The minority shareholders trusteeship rights index (Max=4) indicates the extent to which the board of directors serves as a trustee for minority shareholder, i.e. the directors are independent from the firm's controlling shareholders. The regulatory provisions are quantified as follows:

- Nomination to the board by shareholders: 2 if shareholders voting to elect non-executive directors is not required (2-tier boards); 0 if required or 1-tier board
- Board independence: 2 if CEO cannot be the chairman of the board of directors (in 1-tier board structure) or if the overlap between management and supervisory board is forbidden (in 2-tier board structure), 0 otherwise

4.4 The minority shareholders affiliation rights index (Max=14) groups the remaining regulatory provisions aimed at protecting minority shareholders: the principle of equal treatment (or shared returns) and rights for entry and exit on fair terms. The regulatory provisions are quantified as follows:

- Equal treatment rule: 2 if required, 0 if not,
- Mandatory disclosure of large ownership stakes: 0 if disclosure is not required or the minimum percent is 25% or more; 1 if 10% or more (less then 25%); 2 if 5% or more (less then 10%); 3 if less then 5%.
- Mandatory bid rule: 0 if not required; 1 if 50% or control; 2 if between 50 and 30%; 3 if 30% or less.
- Sell-out rule: The squeeze-out rule is used as a proxy for the sell-out rule, (assumption: sell-out is always in place if squeeze-out is adopted, with the same terms as squeeze-out): 0 if no squeeze-out; 1 if squeeze-out at 95% or more; 2 if squeeze-out at 90% or less.
- Minority claim: 0 if no; 1 if 10% or more; 2 if 5% or more; 3 if less then 5%.
- Break-through rule: 1 if required; 0 if not,

The higher each index, the better is the protection of the minority shareholders.

3. *The creditor rights protection index* (Max=5) is based on regulatory provisions that allow creditors to force repayment more easily, take possession of collateral, or gain control over firm in financial distress. The regulatory provisions are quantified as follows:

- Debtor-oriented versus Creditor-oriented code: 1 if no reorganization option (liquidation only); 0 if reorganization + liquidation option;
- Automatic stay on the assets: 1 if no automatic stay is obliged in reorganization (if debt-orient code) or liquidation procedure (if liquidation code); 0 otherwise;
- Secured creditors are ranked first: 1 if secured creditors are ranked first in the liquidation procedure; 0 if government and employees are ranked first;
- Creditor approval of bankruptcy: 1 if creditor approval is required to initiate reorganization procedure (if debtor-oriented code) or liquidation procedure (if liquidation code); 0 otherwise;
- Appointment of official to manage reorganization/liquidation procedure: 1 if it is required by law in a reorganization procedure (if debtor-oriented code) or a liquidation procedure (if liquidation code); 0 otherwise.

The higher the index, the better is the protection of the creditors

4.1.2 The decision rights strategy

The right to participate in corporate decisions enables shareholders to effectively monitor the management and prevent the misuse of corporate assets. However, due to coordination problems, (atomistic) shareholders are unable to participate in daily decision-making but can only be expected to weigh on major corporate decisions (e.g. the use of takeover defence measures, new equity issues, and mergers and acquisitions). Shareholders have the power to affect these activities if corporate legislation grants them with preemption rights, rights to approve the adoption of anti-takeover measures, and rights to call for an extraordinary general meeting.

Hostile takeovers constitute a real threat for corporate managers of losing their jobs. Therefore, managers may be tempted to unduly implement takeover-defence measures that discourage potential buyers from taking over the company, even if this violates the shareholders' interests. The shareholders' right to approve anti-takeover measures is a mechanism to mitigate managerial discretion over the firm's cash flows. Preemption rights can also be considered as an anti-takeover mechanism; therefore shareholders vote on their approval is required to lessen managerial discretion.

Shareholders disagreeing with certain managerial should have a right to call an extraordinary general meeting. The lower the minimum percentage needed to call such a meeting is, the easier shareholders can intervene in critical situations and present their concerns of any mismanagement of the company.

A major shareholder in a firm typically has a decisive power and strong incentives to monitor management and replace it in poorly performing companies (Franks at al., 2001). Bolton and von Thadden (1998) argue that the advantage of monitoring by blockholders is that it takes place on an ongoing basis. In contrast, the disciplining by atomistic shareholders only occurs in crisis situations. If the interests of the major shareholder coincide with those of minority shareholders, managerial-shareholder conflict of interests is likely to be mitigated via monitoring by blockholders. However, an introduction of voting caps may reduce major shareholders' power to affect corporate decisions and may hence weaken the monitoring of management. Therefore, a regulation prohibiting voting caps can be considered as an additional mechanism to reduce managerial opportunism.

Using the regulatory provisions discussed above, we construct a decision rights index that captures the legal power of shareholders to participate in corporate decision-making. The constitutuants of the index and their coding are given in table F-2; a higher index score indicates that managers have less discretion.

4.1.3 The trusteeship strategy

Another way for shareholders to monitor corporate managers (indirectly) is through the appointment of the board of directors. The board's independence from the management is essential. In practice, two board models are used: one-tier and two-tier board structures. Under the two-tier board, the governance functions are granted to a supervisory board (a board consisting of non-executive directors) who monitors top management assembled in the management board. In a unitary board system, both top management and non-executive directors make up the board. In order to guarantee board independence, the overlap between the management and supervisory boards in 2-tier systems is restricted. In a one-tier system, the CEO is usually forbidden to hold a position of chairman simultaneously. Separating the executives' and non-executives' roles on the board enhances the monitoring of management.

Some countries also require companies to establish a separate board of auditors (for e.g. Italy). The main purpose of the board of auditors, which consists of people who do not serve as non-executive directors, is to ensure that the management provides sufficient and truthful information about all corporate activities to regulatory authorities and shareholders. As such, it facilitates monitoring by the market and thereby contributes to the improvement in the management-shareholder relationship. In contrast, employee representation on the board is likely to have negative effect on the management-shareholder relation. Labor interests are often in conflict with those of company's shareholders. The lack of consensus on corporate strategy, caused by a conflict of interest between directors representing employees and shareholders, enlarges the discretion of the management to implement corporate policies to their own benefit. Therefore, employee representation on the board is considered to be harmful for the shareholders.

4.1.4 Transparency

Transparency regulation intends to improve the quality of information about company and management. It should be noted that the intention of this legal strategy is not to improve the quality of the accounting procedures as these are usually not incorporated in corporate law but are set by accounting standards boards. More disclosure increases the informativeness of the market on e.g. corporate policies and contracts directly related to the management. More specifically, corporate legislation regulates the extent to which information is released on the managerial compensation package (on an aggregate or individual basis, if at all) and the requirement to disclose any transactions between management and company (e.g. consulting contracts, interest-free loans). The quality of the transparency is more reliable when the law or the stock exchange regulations include a comply-or-explain principle. It is important that the codes of best practice which exist in almost every country are legally enshrined.

Therefore, we collect information on the following transparency provisions : (i) requirement to disclose managerial compensation on aggregate or individual basis; (ii) requirement to disclose any transactions between management and company; (iii) frequency of financial reporting (annually, semi-annually, quarterly); and (iv) the presence of comply or explain rules. We quantify these provisions into the transparency index. The composition of the index is presented in table F-2; a higher index score reflects more transparency about corporate and managerial activities and profits.

4.2 Regulatory provisions addressing majority-minority shareholders relationship

We also study the relative power of the minority shareholders, which is particularly important when strong majority shareholders are present. This aspect of corporate governance is particularly important in Continental Europe where most of the listed firms are closely-held with one shareholder (group) often controlling a majority of the voting rights. In a firm with concentrated

ownership, it is possible that the dominant shareholder influences managerial decisions to his own benefit and at the expense of minority shareholders. The minority shareholder legal protection rests on the regulatory provisions that increase the relative power of the minority shareholders and reduce the private benefits of control that the controlling blockholder can exploit at the detriment of these shareholders. In this respect, vital rules are the direct minority shareholder rights (board representation, minority claims, extraordinary general meetings, blocking minorities), the one-share-one-vote principle (dual class shares, voting caps, break-through rule, equal treatment principle), ownership transparency, and the relative power in case of a takeover threat.

4.2.1 Appointment rights strategy

The appointment rights strategy aims at protecting minority shareholders as it gives minority shareholders a say in the appointment of the management and the internal governance system (the body of non-executive directors). The most straightforward legal approach is to grant minority shareholders with a right to nominate their representative to the board. This director is independent from the large blockholders and monitors the management in order to prevent it from acting to the benefit of the large shareholders only.

Additional legal solutions to increase the power of minority shareholders when a strong blockholder is present include the use of voting caps and adherence to the one-share-one-vote principle. Voting caps curb the voting power of the large shareholder and hence reduce its influence on managerial actions, leaving more scope for minority shareholders to participate in corporate governance. The one-share-one vote principle aligns the blockholder's cash flow and voting rights. Issuing dual class shares or non-voting shares allows some shareholders to accumulate control while limiting their cash investment. A ban on a deviation from the one-share-one-vote principle should discourage controlling blockholdings, as this makes them relatively more expensive than when the deviation from the principle is allowed. Less power concentration in the hands of large blockholders improves the status of minority shareholders in the firm and their role in the firm's corporate governance.

Overall, we expect the following regulatory provisions of an appointment rights strategy to contribute to minority shareholder protection: (i) mandatory minority shareholder representation on the board; (ii) rules that allow to apply voting caps; and (iii) a ban on the dual class shares (non-voting and multiple-votes shares). We quantified the use of these regulations in our minority shareholders appointment rights index. The components of the index and their coding are disclosed in table F-2; a higher index score reflects that the law upholds the rights of the minority shareholders.

4.2.2 The decision rights strategy

The most powerful regulatory strategy to enable minority shareholders to participate in the governance of their firm is to grant them strong decision rights. This is achieved either by introducing the need of a supermajority approval for major corporate decisions such that minorities who own a combined blocking minority are able to block corporate policies that may harm their interests. Therefore, the higher is the majority percentage the law requires for a corporate decision to be approved by shareholders, the more powerful are the minority shareholders. Regulations that grant shareholders the right to call for extraordinary meeting may also strengthen minority shareholders' incentives to monitor management. The level of protection depends on the minimum percentage of share capital ownership required to call for an extraordinary shareholders' meeting. The lower the percentage, the easier the minority shareholders can pass their concerns to the company's management.

We quantify the two types of legal provisions discussed above into the minority shareholders decision rights index, while the details on the coding are given in table F-2. A higher index score reflects more power for minority shareholders to affect corporate decisions.

4.2.3   The trusteeship strategy: Independence of directors from controlling shareholders

The right to elect the directors to the board gives large shareholders the opportunity to affect the board composition as well as the board's decisions. This may harm the interests of minority shareholders. Some jurisdictions, like the Netherlands, restrict the election power of the shareholders such that large shareholders' influence on the board's decision-making process is limited. Consequently, potential opportunistic behavior by the large blockholder is strongly reduced which thereby increases the protection of small shareholders.

We quantify the provisions open to the trusteeship strategy into the minority shareholders trusteeship rights index. A higher index score reflects that the board of directors acts independently from the controlling shareholder and hence is more accountable for the interests of minority shareholders. The components of the index and their coding are given in table F-2.

4.2.4   The affiliation rights strategy

Our final, but probably most powerful strategy of corporate law to enhance the power of minority shareholders is to provide them with entry and exit rights on fair terms. Most of the regulatory provisions of this category are part of the takeover regulation. The relevant clauses include the mandatory bid, the principle of equal treatment of shareholders, the sell-out rule, and the break-through rule. The mandatory bid rule requires the acquirer to make a tender offer to all the shareholders once she has accumulated a certain percentage of the shares. The mandatory bid requirement is justified on the grounds that an investor who obtains control, may be tempted to exploit private benefits of control at the expense of the minority shareholders. As such, the role of the mandatory bid rule is to protect the minority shareholders by providing them with the

opportunity to exit at a fair price. The principle of equal treatment complements the mandatory bid rule by requiring controlling shareholders, the management, and other constituencies to treat all shareholders within each individual class of shares equally. Although the principle of equal treatment constitutes an important principle of corporate governance regulation with respect to any type of corporate activities, it is particularly important in takeovers where the possibilities of violations of the rights of minority shareholders are far-reaching. The equal treatment principle mandates an acquirer to offer minority shareholders to exit on terms that are no less favourable than those offered to the shareholders who sold a controlling block. Both the mandatory bid rule and the equal treatment principle have received wide recognition at the regulatory level in European countries. The sell out and the break-through rules are less accepted at the regulatory level, though they also aim at protecting the minority shareholders (for an overview see Goergen et al., 2005).

A minority claim is another legal device that grants shareholders the right to exit a company on fair terms when they fear their rights are expropriated. Some regulations stipulate a minimum (combined) percentage which enables shareholders to launch a minority claim. The lower the percentage of ownership required, the easier it is for shareholders to use the minority claim rights to challenge important managerial decisions.

A fundamental element of corporate governance that provide minority shareholders with the entry right consists of the disclosure of voting and cash flow rights. Information about major share blocks allows the regulator, minority shareholders and the market to monitor large blockholders in order to avoid that the latter extracts private benefits of control at the expense of other stakeholders. In other words, transparency minimizes potential agency problems *ex ante*. Moreover, transparency allows the regulator to investigate, for instance, insider trading or self-dealing by large blockholders.

The legal devices that provide minority shareholders with the right to entry and exit on fair terms are quantified into a minority shareholders affiliation rights index. A higher index score reflects that the expropriation of minority shareholders by the controlling blockholder is less likely (the components of this index and their coding is given in table F-2).

4.3 Regulatory provisions aimed at creditor rights protection

Creditor protection hinges on the regulatory provisions that allow creditors to force repayment more easily, take possession of the collateral, or even gain control over firm. We closely follow the LLSV's approach to assess the efficiency of national bankruptcy and reorganization laws in terms of protecting the interests of creditors from being dismissed by managers acting in the interests of shareholders. LLSV argue that creditors are less vulnerable to the opportunism and negligence of managers (shareholders) when the law enables them with the right to pull collateral from a firm without waiting for the completion of the reorganization procedure; when they are ranked first in the distribution of the proceeds that result from the disposition of the assets of a

bankrupt firm; and when they have the decision power to approve or veto the reorganisation (liquidation) procedure initiated by management (shareholders). The protection of creditor rights also increases when the law requires the court or the creditors to appoint an independent official responsible for the operation of the business during the reorganization (or liquidation) procedure.

We complement the LLSV set of regulatory provisions on creditor rights protection by emphasizing the difference between creditor-oriented and debtor-oriented insolvency codes. A creditor-oriented code is a pure liquidation bankruptcy code according to which an insolvent company (or its creditors) has to initiate a liquidation procedure and all of the company's (bankrupt) property is claimed in the interest of the creditors. The key point of a pure liquidation bankruptcy code is that it does not provide for the possibility for a reorganization procedure, such that the insolvent company has to be declared bankrupt and its assets sold on behalf of the creditors. In contrast, a debtor-oriented code incorporates a reorganization option which may enable the company to continue its operations after restructuring. The purpose of the reorganization is to enable companies in financial distress but which still have prospects of continued profitable activity to restructure without resorting to bankruptcy. Asset restructuring usually also involves financial restructuring whereby creditors are writing down their claims. Examples of debtor-oriented codes are the Chapter 11 procedure in the US and Administration procedure in the UK. As insolvency codes that facilitate corporate reorganization focuses on corporate survival which leads to substantial write-downs of creditor claims, the (more senior) creditors may lose more in debtor-oriented codes than in creditor-oriented ones. Details about the calculation of the creditor rights index are given in Table F-2; a higher index score signifies stronger creditor rights.

5. Evolution of corporate governance regulations around the world

5.1 Ownership structure around the world

As discussed in section 2, the need to reform corporate governance regulation may be different in each country because of the differences in control structures. Therefore, in order to understand the evolution of the legal environments better, we exhibit in figures F-1 and F-2 the ownership and control concentration and structures in Europe and the US in the late 1990s. Since major corporate governance regulation reforms took place in the late 1990s, we predict how these ownership patterns may evolve as a result of the corporate governance reforms.

Figures F-1 and F-2 show that the stakeholder-based regime prevails in most of Continental Europe and is characterized by majority or near-majority holdings of stock held in the hands of one shareholder or a small group of investors. In contrast, the shareholder-based system of the US, UK, and the Republic of Ireland, is characterized by a dispersed equity structure. Although the difference in ownership between Continental Europe, on the one hand, and the UK, US, and Ireland, on the

other, is remarkable, there is still variation in the percentage of companies under majority or blocking minority control across the Continental European countries. In particular, Figure F-1 shows that the countries of Scandinavian legal origin have the lowest percentage of companies that are controlled by a majority blockholder, whereas countries of German legal origin and the countries that recently acceded to the EU (with exception of for Slovenia) have the highest percentage. Figure F-2 reports that the percentage of Continental European companies controlled by investors controlling a blocking minority of at least 25 percent is very high. The difference across countries is less pronounced, as in almost all countries more than 50 percent of listed companies have a controlling blockholder.
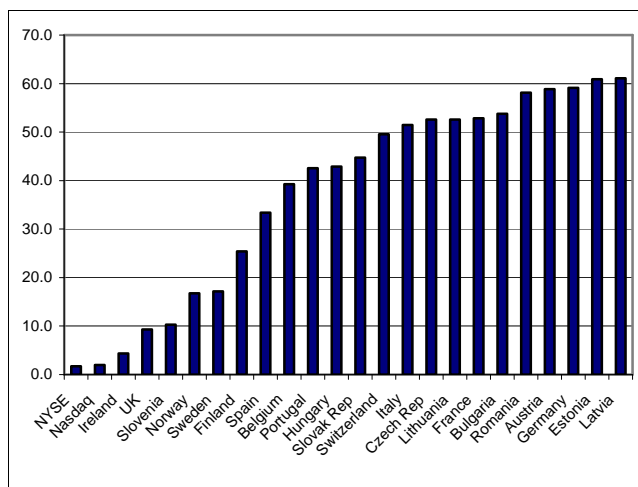

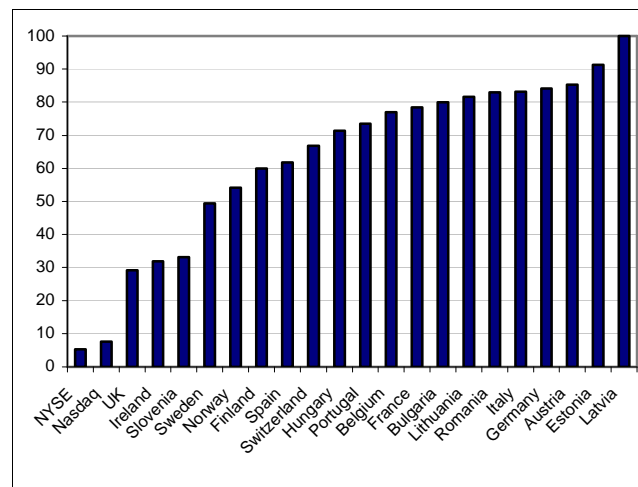*Figure F-1. Percentage of listed companies under majority control*

Figure F-2. Percentage of listed companies with a blocking minority of at least 25%

Data source: Faccio and Lang (2002) for European countries with law of English, German, French, and Scandinavian origin, Barca and Becht (2001) for the US, and the ECGI project "Corporate Governance & Disclosure in the Accession Process"(2001) for the EU accession countries.

5.2 The protection of shareholder rights

We develop two indices capturing the protection of shareholder rights: an 'anti-directors' right index employing the LLSV-methodology and a broader index. While the former captures a limited set of criteria, the broader shareholder rights index also measures the shareholders' power to appoint directors, shareholder decision power, the board structure and the information available to shareholders (as discussed in section 4.1).

Figure F-3 shows the updated and corrected 'anti-directors' right index of LLSV. We classify all countries into six groups according to their legal origin and economic development. Countries from the former communist block are classified according to their (staged) accession to the European Union, as this event has had an important impact on their legislative reforms prior to the accession. Column 1 of Table F-2 reports changes in the index for each individual country. Most of European countries have reformed their corporate law during the 1990s in order to ensure better shareholder protection. The countries that were not involved in the reforms are those of English legal origin. However, these countries already had high standards of protection in place.

It is important to note that although we apply the same methodology as LLSV to construct the index, we find that our index score differs for some countries from the one reported by LLSV. For instance, the difference is pronounced for the countries of English legal origin.[143] An example of the differences between the LLSV index and our index is summarized in Appendix F-I where we compare the Delaware Code and UK Company law provisions.[144]
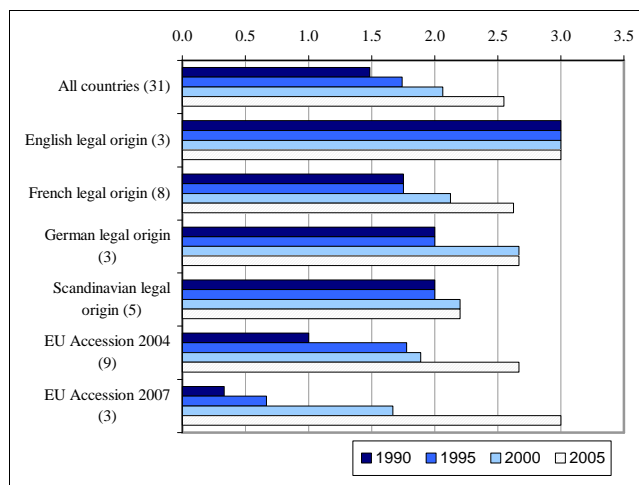

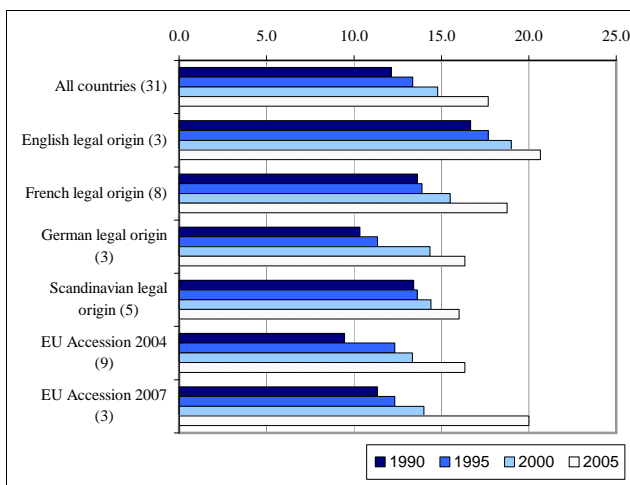*Figure F-3. Anti-director index based on LLSV methodology: Total index*

Figure F-4. Shareholder rights protection index Total index

Notes: The countries are categorized based on their legal origin and based on the EU enlargement process. The countries belong to these types: *English legal origin* (Republic of Ireland, UK, and US), *German legal origin* (Austria, Germany, Switzerland,), *French legal origin* (Belgium, France, Greece, Italy, Luxembourg, Netherlands, Portugal, and Spain), *Scandinavian legal origin* (Denmark, Finland, Iceland, Norway, and Sweden), *2004 EU Accession* (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia, and Slovak Republic), *2007-09 likely EU Accession* (Bulgaria, Croatia, and Romania). The X-axis shows the mean value of each index

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[143] We find that, for some countries, the LLSV records of regulatory provisions do not coincide with those of our database. When we find inconsistencies we contacted our legal experts again to clarify the issue. We replace LLSV records with new information only when our legal experts confirm that our information is correct.

[144] Most of corporate governance regulatory provisions in the US are on the state level rather than on federal level. Therefore, there is a considerable variation in legal regimes across the American states. In our analysis we only focus on Delaware where a majority of US companies is incorporated.

Table F-3. Anti-director index (LLSV) and newly constructed shareholder rights protection indices by country and over time

| | ANTI-DIRECTOR INDEX (LLSV) | | | | SHAREHOLDER RIGHTS PROTECTION INDEX: | | | | | | | | | | | | | | | | | | | | |
| | (1) | | | | Total Index (2) | | | | Appointment Rights strategy (3) | | | | Decision Rights strategy (4) | | | | Trusteeship strategy (5) | | | | Transparency strategy (6) | | | |
	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005
English Legal Origin:																								
Ireland	3	3	3	3	16	16	18	21	8	8	8	8	3	3	5	5	2	2	2	3	3	3	3	5
UK	3	3	3	3	19	22	24	24	9	9	9	9	5	5	5	5	2	4	4	4	3	4	6	6
US (Delaware)	3	3	3	3	15	15	15	17	6	6	6	6	1	1	1	1	2	2	2	3	6	6	6	7
Average	3.0	3.0	3.0	3.0	16.7	17.7	19.0	20.7	7.7	7.7	7.7	7.7	3.0	3.0	3.7	3.7	2.0	2.7	2.7	3.3	4.0	4.3	5.0	6.0
French Legal Origin:																								
Belgium	2	2	2	2	15	17	18	18	6	6	6	6	4	4	4	4	3	3	3	3	2	4	5	5
France	2	2	2	4	11	11	11	16	4	4	4	5	5	5	5	5	0	0	0	0	2	2	2	6
Greece	3	3	3	3	12	12	15	20	4	4	4	4	5	5	7	7	2	2	2	3	1	1	2	6
Italy	1	1	3	4	15	15	22	26	8	8	9	9	2	2	5	7	3	3	3	3	2	2	5	7
Luxembourg	0	0	0	0	11	11	11	12	3	3	3	3	4	4	4	4	0	0	0	0	4	4	4	5
Netherlands	1	1	1	1	15	15	15	19	4	4	4	4	5	5	5	5	4	4	4	4	2	2	2	6
Portugal	2	2	3	3	15	15	17	20	6	6	7	7	3	3	3	3	3	3	3	3	3	3	4	7
Spain	3	3	3	4	15	15	15	19	5	5	5	6	5	5	5	5	2	2	2	2	3	3	3	6
Average	1.8	1.8	2.1	2.6	13.6	13.9	15.5	18.8	5.0	5.0	5.3	5.5	4.1	4.1	4.8	5.0	2.1	2.1	2.1	2.3	2.4	2.6	3.4	6.0
German Legal Origin:																								
Austria	3	3	4	4	9	10	14	14	2	2	4	4	3	3	5	5	2	2	2	2	2	3	3	3
Germany	2	2	3	3	12	14	16	18	3	3	3	3	3	5	7	7	2	2	2	2	4	4	4	6
Switzerland	1	1	1	1	10	10	13	17	5	5	5	5	3	3	5	5	2	2	2	2	0	0	1	5
Average	2.0	2.0	2.7	2.7	10.3	11.3	14.3	16.3	3.3	3.3	4.0	4.0	3.0	3.7	5.7	5.7	2.0	2.0	2.0	2.0	2.0	2.3	2.7	4.7
Scandinavian Legal Origin:																								
Denmark	2	2	2	2	9	9	9	11	4	4	4	4	3	3	3	3	0	0	0	0	2	2	2	4
Finland	1	1	2	2	15	15	17	19	6	6	7	7	3	3	3	3	2	2	2	2	4	4	5	7
Iceland	2	2	2	2	20	18	18	22	8	8	8	8	5	3	3	3	4	4	4	4	3	3	3	7
Norway	3	3	3	3	14	14	16	16	4	4	4	4	5	5	5	5	2	2	2	2	3	3	5	5
Sweden	2	2	2	2	9	12	12	12	4	4	4	4	3	3	3	3	2	2	2	2	0	3	3	3
Average	2.0	2.0	2.2	2.2	13.4	13.6	14.4	16.0	5.2	5.2	5.4	5.4	3.8	3.4	3.4	3.4	2.0	2.0	2.0	2.0	2.4	3.0	3.6	5.2

	ANTI-DIRECTOR INDEX (LLSV)				SHAREHOLDER RIGHTS PROTECTION INDEX:																		
					Total Index				Appointment Rights strategy				Decision Rights strategy				Trusteeship strategy				Transparency strategy			
	(1)				(2)				(3)				(4)				(5)				(6)			
	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005
EU Accession 2004:																								
Cyprus	4	4	4	4	14	15	15	18	9	9	9	9	3	3	3	5	2	2	2	2	0	1	1	2
Czech Rep	0	1	1	3	5	7	10	13	2	2	3	3	1	1	3	6	2	2	2	2	0	2	2	2
Estonia	0	1	1	2	9	15	17	19	4	5	5	5	3	5	5	5	2	4	4	4	0	1	3	5
Hungary	0	0	1	2	6	6	10	15	3	3	3	5	1	1	3	5	2	2	2	2	0	0	2	3
Latvia	0	1	1	2	13	15	15	17	6	6	6	6	3	3	3	3	4	4	4	4	0	2	2	4
Lithuania	2	3	3	3	9	18	20	24	4	6	6	7	3	5	5	7	2	4	4	4	0	3	5	6
Poland	2	2	2	2	13	18	14	15	6	6	4	2	3	3	3	5	4	4	2	2	0	5	5	6
Slovak Rep	0	1	1	2	8	8	8	10	2	2	2	2	3	3	3	5	2	2	2	2	1	1	1	1
Slovenia	1	3	3	4	8	9	11	16	3	4	4	4	3	3	5	7	2	2	2	2	0	0	0	3
Average	1.0	1.8	1.9	2.7	9.4	12.3	13.3	16.3	4.3	4.8	4.7	4.8	2.6	3.0	3.7	5.3	2.4	2.9	2.7	2.7	0.1	1.7	2.3	3.6
EU (likely) Accession 2007:																								
Bulgaria	0	0	2	3	11	12	14	18	4	4	4	4	5	5	7	7	2	2	2	2	0	1	1	5
Croatia	1	2	2	4	12	14	14	23	6	5	5	6	2	5	5	7	4	4	4	4	0	0	0	6
Romania	0	0	1	2	11	11	14	19	5	5	5	5	3	3	3	5	3	3	5	5	0	0	1	4
Average	0.3	0.7	1.7	3.0	11.3	12.3	14.0	20.0	5.0	4.7	4.7	5.0	3.3	4.3	5.0	6.3	3.0	3.0	3.7	3.7	0.0	0.3	0.7	5.0

Figure F-4 (and, more in detail, column 2 of Table F-2) shows the dynamics in the protection of shareholder rights captured with our shareholder rights protection index and reveals that in virtually every European country significant changes in corporate law were implemented during the past 15 years. Nonetheless, countries of English legal origin remain the leaders in terms of the quality of shareholder protection. However, in the mean time, the French legal origin countries have evolved and reach a level close to the English origin standard. The lowest level of investor protection is nowadays observed in countries of German and Scandinavian legal origins, as well as in the EU 2004 accession countries.

The countries achieving the strongest improvement in their legal environment over the period 1990 to 2005 are the former communist-block countries that have recently joined the EU, whereas the least improvement is observed in Scandinavian countries (where shareholder protection has even decreased somewhat). The EU Accession process has already had an important impact on the legislative reforms in Bulgaria, Croatia, and Romania. However, a discussed in section 2, one needs to put the shareholder protection index in the right perspective; an improvement in shareholder protection may not be meaningful if the enforcement of these rights in courts is difficult. This may be particularly difficult in Italy, and in Central and Eastern Europe.
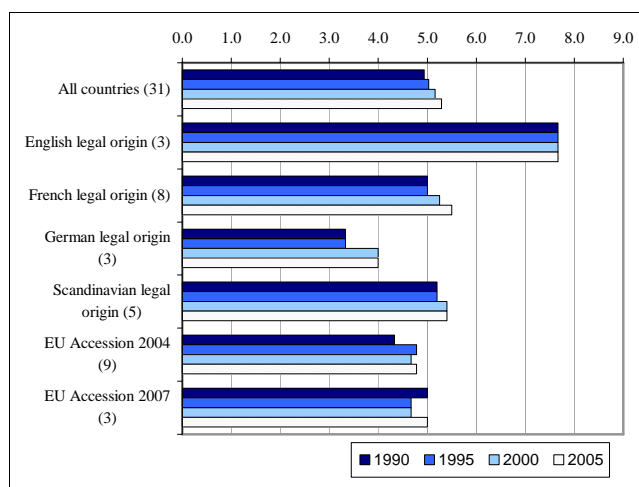
Figure F-5. Shareholder rights protection index by legal origin: Appointment rights sub-index
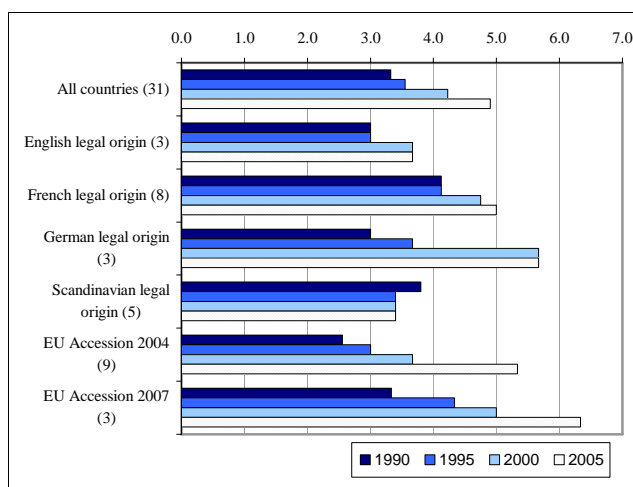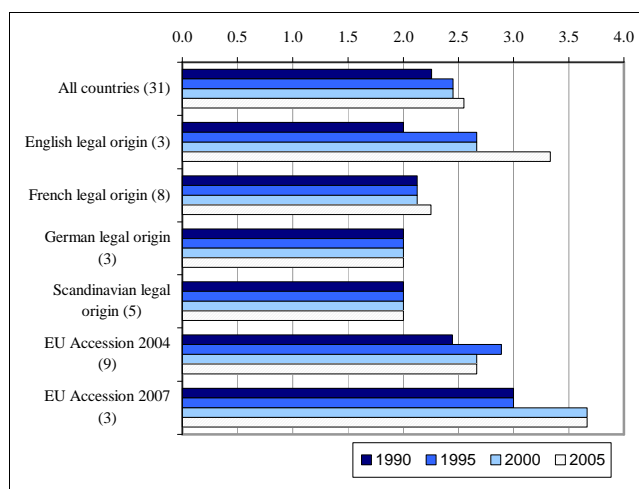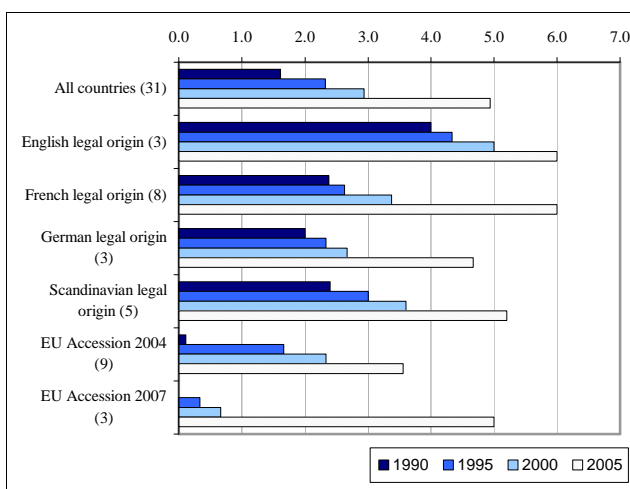
Figure F-6. Shareholder rights protection index by legal origin: Decision rights sub-index

Note: For the classification of legal origins see notes to figures F-3 and F-4. The X-axis shows the mean value of the index

Figures F-5 through F-8 (as well as the detailed columns 3-6 of Table F-2) dissect the shareholder protection index of Figure F-4 into an appointment rights sub-index, a decision rights sub-index, a trusteeship sub-index, and a transparency sub-index. For each of these constituting elements, there are striking differences across legal origins. Whereas the German origin countries and the EU 2004 Accession countries focus on reforms that provide shareholders with more decision rights in the firm (see Figure F-6), countries of English legal origin and those of likely 2007 EU

accession direct their reforms to the establishment of a trusteeship relation; a board of directors representing the interest of shareholders (see Figure F-7). A strategy that all countries deploy to improve shareholder protection is to provide investors with more transparency. Figure F-8 shows dramatic changes in transparency standards overall. Introducing (more strict) disclosure regulation is likely to affect the broader corporate governance system because it reduces the private benefits of control to major blockholders and also helps investors to monitor the management better. This may induce further convergence towards the shareholder-based corporate governance regime with dispersed ownership and control structures and strong shareholder protection.

Figure F-7. Shareholder rights protection index by legal origin: Trusteeship sub-index

Figure F-8. Shareholder rights protection index by legal origin: Transparency sub-index

Note: For the classification of legal origins see notes to figures F-3 and F-4. The X-axis shows the mean value of the index

5.3 The protection of minority shareholder rights

Fewer regulatory changes have taken place for the protection of minority shareholders since 1990. Figure F-9 exhibits the changes in the minority shareholder rights protection index by legal origin, while columns 1-5 of table F-3 detail the changes by country.

The problem of the misalignment of interests between minority and majority shareholders has been addressed on a regulatory level in almost all countries with the exception of the US, the Netherlands, and Spain (see column 1 of Table F-3). Countries of French and German legal origin and former communist countries are the leaders among the reformers, whereas English and Scandinavian legal origin countries are much less involved in the reforms (Figure F-9). Until about ten years ago, the highest level of minority protection was observed in the countries of English legal origin, but nowadays, the level of minority rights protection is relatively similar across all countries, with Scandinavian countries being lagging somewhat behind.
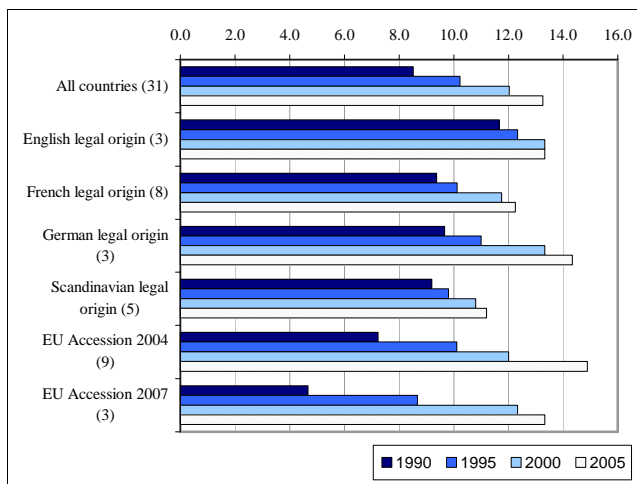
Figure F-9. Minority shareholder rights protection index by legal origin: Total index

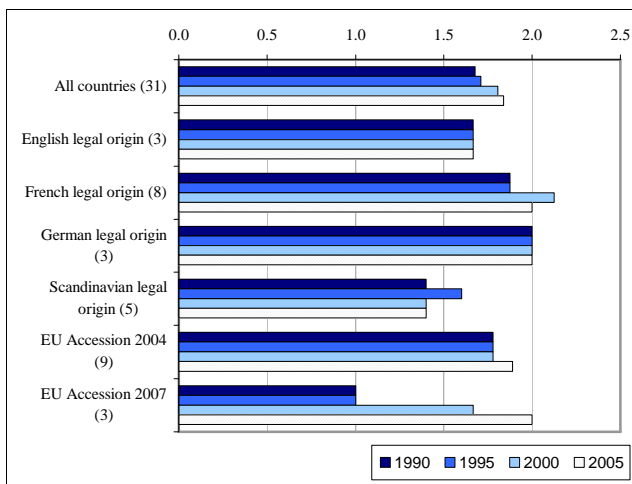*Figure F-10. Minority shareholder rights protection index by legal origin: Appointment rights sub-index*

Note: The X-axis shows the mean value of the index

We also dissect the minority shareholders protection index into three parts: appointment rights, decision rights, trusteeship strategies and affiliation strategies. As in the case of the shareholder rights protection index, countries are able to achieve an increase in minority shareholder protection using different strategies (see Figures F-10 – F-13 and columns 2-5 of Table F-3). The appointment rights, decision rights, and trusteeship strategies are mainly employed by the EU 2004 and EU 2007 (likely) accession countries and by only a few countries of French and Scandinavian legal origins (Italy, Finland, and Iceland). In these countries, the relative power of minority shareholders vis-à-vis a strong blockholder has been increased by stronger board representation, blocking minorities, minority claims, and voting caps.

The affiliation strategy is pursued in virtually all countries to improve minority protection (see Figure F-13). It is associated with granting minority shareholders the right to entry and exit the company on fair terms. The entry right is strengthened by the introduction of (more strict) disclosure requirements regarding corporate control structures and managerial activities. This should make investors aware of the firm's governance structure and potential agency problems before they decide to buy a firm's shares. Reforms of takeover regulation, introduction of equal treatment of shareholders, mandatory bid, and sell-out rules in particular, enable minority shareholders to exit without being expropriated.

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Table F-4. Newly constructed minority shareholder rights and creditor rights protection indices by country and over time

	MINORITY SHAREHOLDER RIGHTS PROTECTION INDEX:																				CREDITOR RIGHTS PROTECTION INDEX			
	Total Index				Appointment Rights strategy				Decision Rights strategy				Trusteeship strategy				Affiliation strategy							
	(1)				(2)				(3)				(4)				(5)				(6)			
	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005
English Legal Origin:																								
Ireland	13	13	16	16	1	1	1	1	3	3	3	3	0	0	0	0	9	9	12	12	2	2	2	2
UK	14	16	16	16	3	3	3	3	3	3	3	3	0	2	2	2	8	8	8	8	2	2	2	2
US (Delaware)	8	8	8	8	1	1	1	1	2	2	2	2	0	0	0	0	5	5	5	5	0	0	0	0
Average	11.7	12.3	13.3	13.3	1.7	1.7	1.7	1.7	2.7	2.7	2.7	2.7	0.0	0.7	0.7	0.7	7.3	7.3	8.3	8.3	1.3	1.3	1.3	1.3
French Legal Origin:																								
Belgium	12	13	13	13	2	2	2	2	2	2	2	2	0	0	0	0	8	9	9	9	5	5	2	2
France	12	12	12	14	1	1	1	1	2	2	2	2	0	0	0	0	9	9	9	11	1	1	1	1
Greece	7	7	8	9	1	1	1	1	2	2	2	2	0	0	0	0	4	4	5	6	4	4	4	4
Italy	7	11	18	17	2	2	4	3	1	1	2	2	0	0	0	0	4	8	12	12	2	2	2	1
Luxembourg	3	4	4	4	0	0	0	0	1	1	1	1	0	0	0	0	2	3	3	3	2	2	2	2
Netherlands	13	13	13	13	2	2	2	2	2	2	2	2	3	3	3	3	6	6	6	6	4	4	4	4
Portugal	6	6	11	13	3	3	3	3	2	2	2	2	0	0	0	0	1	1	6	8	4	4	4	3
Spain	15	15	15	15	4	4	4	4	2	2	2	2	0	0	0	0	9	9	9	9	1	1	1	1
Average	9.4	10.1	11.8	12.3	1.9	1.9	2.1	2.0	1.8	1.8	1.9	1.9	0.4	0.4	0.4	0.4	5.4	6.1	7.4	8.0	2.9	2.9	2.5	2.3
German Legal Origin:																								
Austria	15	15	17	17	4	4	4	4	3	3	3	3	2	2	2	2	6	6	8	8	2	2	2	2
Germany	9	11	12	16	1	1	1	1	3	3	3	3	2	2	2	2	3	5	6	10	3	3	2	2
Switzerland	5	7	11	10	1	1	1	1	2	2	2	2	0	0	0	0	2	4	8	7	5	5	3	3
Average	9.7	11.0	13.3	14.3	2.0	2.0	2.0	2.0	2.7	2.7	2.7	2.7	1.3	1.3	1.3	1.3	3.7	5.0	7.3	8.3	3.3	3.3	2.3	2.3
Scandinavian Legal Origin:																								
Denmark	10	10	12	12	2	2	2	2	2	2	2	2	0	0	0	0	6	6	8	8	3	3	3	3
Finland	9	10	10	10	2	2	1	1	2	2	2	2	2	2	2	2	3	4	5	5	5	2	2	2
Iceland	7	8	11	12	0	1	1	1	2	2	2	2	2	2	2	2	3	3	6	7	2	2	2	2
Norway	11	11	11	12	1	1	1	1	2	2	2	2	2	2	2	2	6	6	6	7	3	3	3	3
Sweden	9	10	10	10	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4	4	4	4	1	1
Average	9.2	9.8	10.8	11.2	1.4	1.6	1.4	1.4	2.0	2.0	2.0	2.0	1.6	1.6	1.6	1.6	4.2	4.6	5.8	6.2	3.4	2.8	2.2	2.2

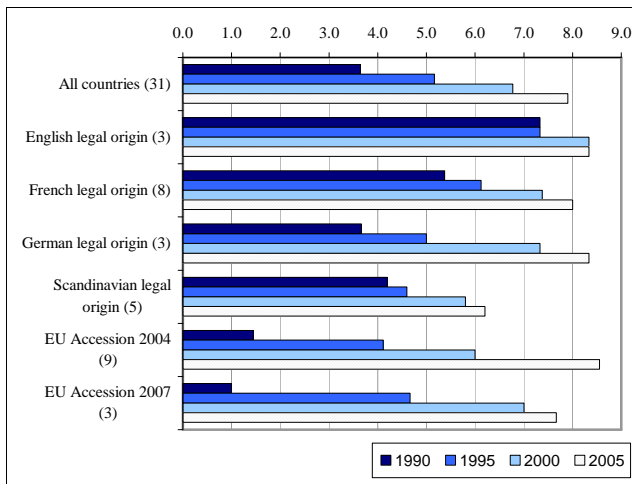		MINORITY SHAREHOLDER RIGHTS PROTECTION INDEX:																				CREDITOR RIGHTS PROTECTION INDEX			
	Total Index (1)				Appointment Rights strategy (2)				Decision Rights strategy (3)				Trusteeship strategy (4)				Affiliation strategy (5)				(6)			
	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005	1990	1995	2000	2005
EU Accession 2004:																								
Cyprus	5	5	7	9	1	1	1	1	3	3	3	3	0	0	0	0	1	1	3	5	5	5	5	5
Czech Rep	6	10	12	20	2	2	2	4	2	2	2	4	2	2	2	2	0	4	6	10	0	4	4	4
Estonia	2	7	9	12	0	1	1	1	2	2	2	2	0	2	2	2	0	2	4	7	0	2	2	3
Hungary	8	8	14	16	2	2	2	2	3	3	3	3	2	2	2	2	1	1	7	9	0	2	2	3
Latvia	8	9	9	14	1	1	1	1	3	3	3	3	2	2	2	2	2	3	3	8	0	5	5	5
Lithuania	11	11	12	13	2	1	1	1	2	2	2	2	2	2	2	2	5	6	7	8	0	5	5	3
Poland	12	17	15	18	4	4	4	4	3	3	3	3	2	2	2	2	3	8	6	9	2	2	2	3
Slovak Rep	6	12	12	15	2	2	2	2	2	2	2	2	2	2	2	2	0	6	6	9	2	2	2	2
Slovenia	7	12	18	17	2	2	2	1	2	2	2	2	2	2	2	2	1	6	12	12	0	1	1	1
Average	7.2	10.1	12.0	14.9	1.8	1.8	1.8	1.9	2.4	2.4	2.4	2.7	1.6	1.8	1.8	1.8	1.4	4.1	6.0	8.6	1.0	3.1	3.1	3.2
EU (likely) Accession 2007:																								
Bulgaria	3	7	11	11	0	0	1	1	2	2	2	2	0	0	0	0	1	5	8	8	0	2	2	2
Croatia	7	10	14	15	1	1	2	1	2	3	3	3	2	2	2	2	2	4	7	9	5	5	4	4
Romania	4	9	12	14	2	2	2	4	2	2	2	2	0	0	2	2	0	5	6	6	1	2	2	3
Average	4.7	8.7	12.3	13.3	1.0	1.0	1.7	2.0	2.0	2.3	2.3	2.3	0.7	0.7	1.3	1.3	1.0	4.7	7.0	7.7	2.0	3.0	2.7	3.0
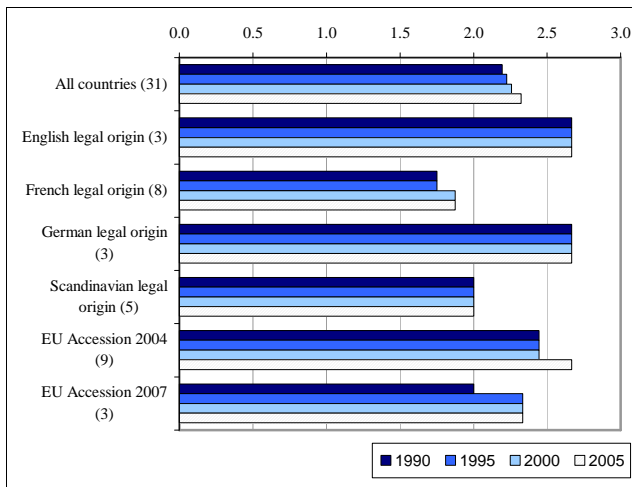
Figure F-11. Minority shareholder rights protection index by legal origin: Decision rights sub-index
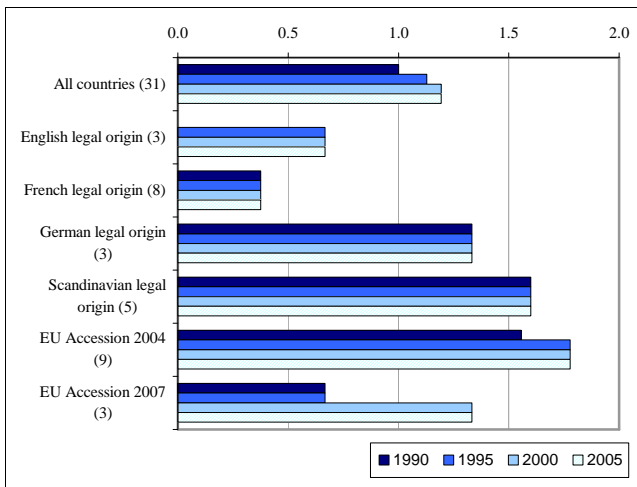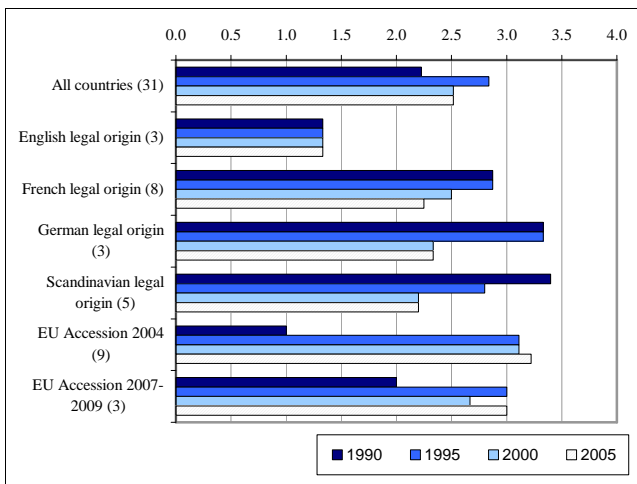

Figure F-12. Minority shareholder rights protection index by legal origin: Trusteeship sub-index

Note: For the classification of legal origins see notes to figures F-3 and F-4. The X-axis shows the mean value of the index

An increase in the power of minority shareholders when a large blockholder is present in the firm reduces the private benefits of control of this blockholder which may lead to more ownership dispersion. Therefore, one could expected a shift towards more dispersed ownership in the leading reformers in the area of minority shareholder protection, namely: the French and German legal origin countries and the former communist countries. To conclude, also on this aspect of corporate governance we observe more convergence towards a shareholder-based system with lower ownership concentration.

Figure F-13. Minority shareholder rights protection index by legal origin: Affiliation rights sub-index

Figure F-14. Creditor rights protection index by legal origin: Total index

Note: For the classification of legal origins see notes to figures F-3 and F-4. The X-axis shows the mean value of the index

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5.4 The protection of creditor rights

Figure F-14 reports the evolution of the legal environment with respect to creditors rights protection. Strikingly, we find that countries have very different perspectives on the protection of creditor rights (see column 6 of Table F-3). There are three different scenarios: first, creditor protection in countries of French, German, and Scandinavian legal origin has weakened significantly. Second, former communist countries have in contrast moved towards more creditor protection. Finally, English legal origin countries have abstained from reforming their bankruptcy and reorganization legislation and have currently the system which is least protective for creditors.

Most of the French, German, and Scandinavian legal origin countries have reorganized their bankruptcy legislation by introducing a reorganization procedure that enables companies to restructure their debts and escape liquidation. By the late 1990s, a large majority of Continental European countries (with exception of the former communist block) have a debtor-oriented corporate insolvency code that includes two tracks: a reorganization part (e.g. Administration in the UK) and a pure liquidation code (e.g. Receivership in the UK). It is in fact not that surprising that in a number of countries the creditor protection has diminished as in these countries one can observe an increase in shareholder protection. We believe that the lack of a well-developed equity market is one of the main reasons for the regulators of EU accession countries to increase creditor protection. Better protection of creditors reduces the costs of debt financing, which is essential for companies in such countries. Further equity market development in these countries may lead to a new wave of the bankruptcy law reforms, which will reduce creditor rights.

6. Conclusion

This paper performs a comparative analysis of the corporate governance legal regimes and their evolution in 30 European countries and the US. The analysis is based on a unique corporate governance database that comprises the main changes in corporate governance regulations over the period 1990 to 2005. We develop three new corporate governance indices that reflect the quality of national laws aimed at protecting (i) corporate shareholders from being expropriated by management, (ii) minority shareholders from being expropriated by large blockholder, and (iii) creditors from being expropriated by shareholders. We further dissect these indices along various dimensions of regulator strategies (as captured by e.g. the sub-indices expressing relative decision power, appointment rights, trusteeship, or corporate transparency). We find that, in contrast to the LLSV ranking system, our new governance indices capture a broader scope of corporate governance regulation reforms and their dynamics.

The time-series analysis of the newly constructed indices reveals that virtually every country from our sample has been involved in substantial changes in their corporate legislations since 1990. The changes relate to all three major types of agency problems. The improvement of corporate transparency has been a dominant legal strategy across countries to address both the protection of shareholders from the misuse of corporate assets by managers, and the protection of minority shareholders from expropriation by a strong blockholder. A large majority of continental European countries also has also strengthened the protection of minority shareholders in their takeover regulations.

We also detect some differences in the patterns of legal reforms across countries. For instance, in their attempts to improve shareholder protection, German legal origin and EU 2004 accession countries focus on reforms that provide shareholders with more decision rights in the firm, while the countries of English legal origin (and those of the EU 2007 accession) direct their reforms to the representation of investors on the board of directors (trusteeship) and the effective monitoring by boards. Furthermore, countries have very different perspectives on the how to deal with financial distress and bankruptcy. Whereas French, German, and Scandinavian legal origin countries put less emphasis on creditor protection, the former communist countries move in the opposite direction and strengthen creditor protection. Countries of English legal origin have not modified their bankruptcy and reorganization codes.

While varying degrees of creditor protection that were recently introduced in national bankruptcy laws show that the global convergence of legal systems towards a single system of corporate regulation is unlikely, there are still signs of increasing convergence by national corporate governance regulations towards a shareholder-based regime when the protection of (minority) shareholders is considered. The recent legislative changes in countries of French and German legal origin may bring about more ownership dispersion in time. A stakeholder-based system is likely to be maintained in Scandinavian and former communist countries. Over the past 15 years, Scandinavian countries have substantially lagged other West-European countries in terms of increasing the level of (minority) shareholder rights protection, such that their legal reforms may be insufficient to induce changes in corporate control. In contrast to Scandinavian countries, the former communist countries have undertaken dramatic revisions of their national corporate legislation in order to guarantee (theoretically) more (minority) shareholder protection. However, the ownership structure is unlikely to evolve towards more dispersion because their reforms also augment the creditor rights in case of financial distress. This regulatory choice may discourage the development of efficient equity markets and hence changes in corporate control.

The countries of English legal origin still provide the highest quality of shareholder protection. In the mean time, many Continental European countries have improved their legal system up to the standard set by the English legal system. Whether and to what extent these reforms will

lead to changes in the degree of ownership and control concentration remains an appealing topic for future research.

Appendix F-I.

The table summarizes the provision of the Delaware and UK Company Law with regard to the shareholder rights employed to construct the LLSV anti-director index. The classification of shareholder rights closely follows the one deployed in LLSV. If a particular provision is in the law, we denote this with 1; it is 0 otherwise.

Shareholder rights	UK LLSV data	UK Company Law	US LLSV data	Delaware Code
One-share-one-vote	0	0 (The law does not forbid non-voting shares)	0	0 (Non-voting shares are allowed subject to inclusion in the certificate of incorporation, Del. Code. Ann. tit. 8 §151(a))
Proxy by mail allowed	1	1 (The law requires this)	1	1 (The Code also permits the use of electronic or telegraphic proxies. Telephonic proxies or internet website proxies are used as well, Del. Code. Ann. tit. 8 § 212(c)(2))
Shares are not blocked before a general meeting	1	1 (A deposit is not wholly forbidden but the practice is not present)	1	1 (No provisions in the Code but the practice is not present)
Cumulative voting / proportional representation	0	0 (There are no requirements by law and the practice is not present)	1	0 (Cumulative voting is optional, subject to inclusion in the certificate of incorporation, Del. Code. Ann. tit. 8 §214)
Oppressed minority	1	0 (No provisions in the Law and the practice is not present)	1	1 (Any shareholder can bring a fiduciary duty claim against a management decision that is a breach/conflict of interest favoring majority shareholders)
Preemptive right to new issues	1	1 (The law grants preemptive rights in relation to the issue of equity shares for cash)	0	0 (Prior to 1967, Del. Code. Ann. tit. 8 provided for stockholders preemptive rights, unless limited by the certificate of incorporation. In 1967 an opposite rule was enacted)
Total, Anti-director rights	**4**	**3**	**4**	**3**
Percentage of share capital to call an extraordinary meeting	.10	.10	.10	Majority (In Delaware shareholders may not call a special shareholders meeting, unless otherwise provided in the certificate of incorporation or bylaws, see Del. Code. Ann. tit. 8 §211(d). The Code lets a majority of shares act without a meeting, Del. Code. Ann. tit. 8 §228)

SAMENVATTING (DUTCH SUMMARY)

Een uitgebreide literatuur zegt dat de corporate governance omgeving een belangrijke invloed heeft op het economisch gedrag en de bestuur van bedrijven. Corporate governance beïnvloedt de kapitaalkost alsook hoe de winst wordt verdeeld over de betrokkenen bij de bedrijfsvoering (La Porta et al., 1997, 2002; Mork et al., 2000; and Levine, 1998, 1999). Hierdoor duikt de vraag op of en in welke mate men de inzichten en bevindingen van het corporate governance literatuur over de VS en het VK kunnen transponeren naar een Europese context. De twee belangrijkste elementen van een corporate governance systeem zijn de regulering en de markt voor bedrijfscontrole. Hun impact op economische groei, marktontwikkeling, en bedrijfsbestuur zijn al grondig bestudeerd zowel in de theoretische als empirische literatuur. Nochtans is het empirische onderzoek in dit gebied grotendeels beperkt tot de VS and het VK en is er weinig geweten over de effecten van de overnamemarkt en regulering in Continentaal Europa. In deze doctoraatsverhandeling, geef ik een overzicht van de overnamemarkt en de corporate governance regulering in de Europese landen en documenteer ik hun evolutie over de laatste 15 jaar. Ik onderzoek de impact van bedrijfsovernames en de regulering op de winstgevendheid en op de keuze van financieringsbronnen in een overname.

Hoofdstuk 2 is een literatuuroverzicht met de titel 'De geschiedenis van fusies en overnames in de wereld: een overzicht van de literatuur. In dit hoofdstuk concentreer ik me op het cyclische golfpatroon in de overnamemarkt en beantwoord ik vragen zoals: 'Waarom observeren we een systematische groei en val in the activiteit van fusies en overnames doorheen de tijd? Wordt de overname activiteit aangespoord door kapitaalmarktontwikkelingen? Wat veroorzaakte de creatie van conglomeraten in de overnamegolf van de jaren 1960 en de de-conglomeratie in de golven van de jaren 1980 en 1990? Waarom zien we tijds- en landclustering bij vijandige overnameactiviteit? En ten slotte, wordt er aandeelhouderswaarde gecreëerd bij een transfer van bedrijfscontrole? Hoofdstuk 3 geeft een overzicht van de Europese overnamemarkt voor de periode 1990-2001. Het hoofdstuk documenteert ook de belangrijkste eigenschappen van de binnenlandse en internationale overnames van Europese bedrijven en contrasteert deze bevindingen met die uit de tweede overname golf van 1984-1989.

Ik toon gedetailleerde informatie over de grootte en de dynamiek van overnameactiviteit in 28 Continentaal Europese landen en het VK en Ierland. Het materiaal in het derde hoofdstuk wordt verder ontwikkeld in hoofdstuk 4 dat gaat over de 'Performantie van de Europese overnamemarkt: lessen uit de 5e overnamegolf'. Hierin onderzoek ik de marktreactie na overnameaankondigingen van Europese bedrijven in de periode 1990-2001 en onderzoek ook verder de determinanten van de markt reacties. Ik toon aan dat men verwacht dat Europese fusies en overnames synergieën zullen

creëren aangezien de aankondigingen grote toenames in de aandelenkoersen veroorzaken. Nochtans wordt het leeuwenaandeel van de aankondigingreacties binnengehaald door de aandeelhouders van het doelbedrijf. We zien ook dat de kenmerken van zowel de prooi als de bieder een significante impact hebben op de overnamerendementen. Hoewel sommige van onze resultaten al zijn gedocumenteerd in andere overnamemarkten (bv. de VS), zijn andere resultaten uit de vergelijking tussen de overnamemarkten in het VK en Continentaal Europa, elk met hun respectievelijke wettelijke kaders, nieuw: (i) Als een bedrijf uit het VK wordt overgenomen, is het abnormale rendement bij een bod op een Continentaal Europees bedrijf hoger, (ii) De aanwezigheid van een grote aandeelhouder in het biedend bedrijf heeft een significant positief effect op de overnamerendementen in het VK en een negatief in Continentaal Europa. (iii) Zwakke beleggerbescherming en lage transparantie in Continentaal Europa laat biedende bedrijven toe om overname strategieën (bieden op slechts een deel van de aandelen of een bod waarbij een deel van de informatie niet aan de markt wordt bekend gemaakt) toe te passen zodat ze de aandeelhouders van het doelbedrijf opportunistisch kunnen behandelen.

Hoofdstuk 5 onderzoekt de financieringsbronnen in Europese fusies en overnames voor de periode 1993-2001 (de 5e overname golf). Aan de hand van een unieke dataset, toon ik aan dat de externe financieringsbronnen (vreemd en eigen vermogen) frequent worden gebruikt bij overnames waarbij een cash of een gemengd bod wordt gedaan. Ik toon ook aan dat de beslissingen aangaande de betalingswijze en de financieringswijze bij overnames niet samenvallen. Ik documenteer ook dat de financieringskeuzes sterk afhangen van de wettelijke context (vooral wat betreft de bescherming van de aandeelhouders, crediteuren en kleine aandeelhouders, alsook de bedrijfstransparantie).

Hoofdstuk 6 concentreert zich op de wetgeving ivm. bedrijfsovernames. Dit hoofdstuk bevat een gedetailleerde beschrijving van de overname regulering in Europese landen. Ik onderzoek of de recente hervormingen van de overname wetgeving in Europen leiden tot een grotere harmonisering van de nationale wetgevingen. Ik concludeer dat in sommige landen de overname wetgeving zal leiden tot een verspreide eigendomsstructuur, in andere landen overname codes kunnen leiden tot het versterken van een geconcentreerde eigendomsstructuur. Dit artikel werd gepubliceerd in het Oxford Review of Economic Policy (2005).

Het laatste, 7e, hoofdstuk 'Een corporate governance index: convergentie en diversiteit van nationale corporate governance reguleringen' analyseert de regulering in Continentaal Europa en het VK verder. In dit hoofdstuk documenteren we de wetgeving en beursregulering alsook hun evolutie over de voorbije 15 jaar. We construeren een aantal corporate governance indexen die de verschillende potentiële agency conflicten tussen aandeelhouders en managers, tussen meerderheid- en minoriteitaandeelhouders, tussen aandeelhouders en obligatiehouders etc. in kaart brengen. De tijdreeks van 15 jaar van deze indexen die alle (32) Europese landen alsook de VS bevat, laat ons toe conclusies te trekken over de convergentie van corporate governance regimes tussen landen.

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DATA APPENDIX 1

The name of researchers who contributed to our ownership and control database are presented below. The ownership and control data that are not available from the sources below are gathered from annual reports and the shareholder registers of national stock exchanges.

Country	*Data sources*
Austria	Prof. Dr. Klaus Gugler (*University of Vienna*); Faccio and Lang (2002)
Belgium	Prof. Dr. Christoph van der Elst (*Tilburg University*); Prof. Dr. Luc Renneboog (*Tilburg University*)
Cyprus	Stockwatch Cyprus (http://www.stockwatch.com.cy)
Czech Rep.	SCP- The Prague Securities Centre (http://www.scp.cz)
Denmark	Prof. Dr. Steen Thomsen and Mr. Michael Emil Olinger (*Copenhagen Business School*)
Estonia	Tallinn Stock Exchange (http://www.ee.omxgroup.com)
Finland	Prof. Dr. Benjamin Maury (*HANKEN Swedish School of Economics and Business Administration*)
France	Prof. Dr. Alain Alcouffe (*Toulouse University*); Faccio and Lang (2002)
Germany	Prof. Dr. Luc Renneboog (*Tilburg University*); Prof. Dr. Ekkehart Boehmer (*Texas A&M University*); Faccio and Lang (2002)
Ireland	Thomson Financial Research: annual reports of individual firms; Faccio and Lang (2002)
Italy	Prof. Dr. Marcello Bianchi (*CONSOB*)
Latvia	Riga Stock Exchange (http://www.rfb.lv); Dr. Anete Pajuste (*Riga Business School*)
Lithuania	Vilnius Stock Exchange (http://www.nse.lt)
Netherlands	Annual reports and the Financieele Dagblad
Norway	Prof. Dr. Bernt Arne Odegaard (*Norwegian School of Management BI*)
Poland	Dr. Grzegorz Trojanowski (*University of Exeter*)
Portugal	Prof. Dr. Carlos Ferreira Alves (*Porto University*); Mr. Pedro Verga Matos (*Universidade Técnica de Lisboa*); CMVM - Comissão do Mercado de Valores Mobiliários (www.cmvm.pt)
Romania	Bucharest Stock Exchange (http://www.bvb.ro)
Slovenia	Dr. Aleksandra Gregoric (*Ljubljana University*)
Spain	Prof. Dr. Rafael Crespí (*Universitat de les Illes Balears*); CNMV- Comisión Nacional del Mercado de Valores (http://www.cnmv.es)
Sweden	Prof. Dr. Martin Holmen (*Uppsala University*)
Switzerland	Dr. Markus Schmid (*University of Basel*); Mr. Diego Dimitri Liechti (*Universität Bern*): data source Swiss Stock Guide (Schweizer Aktienfuehrer)
UK	Dr. Grzegorz Trojanowski (*University of Exeter*); Faccio and Lang (2002); Thomson Financial Research: annual reports of individual firms

DATA APPENDIX 2

The names of the legal experts who contributed to our corporate governance database are presented below:

Austria: Prof. Susanne Kalls (*University of Klagenfurt*), Prof. Christian Nowotny and Mr. Stefan Fida (*Vienna University of Economics and Business Administration*);

Belgium: Prof. Eddy Wymeersch (*University of Ghent, Chairman of the Commission for Finance, Banking and Assurance*), Prof. Christoph Van der Elst (*University of Ghent*);

Bulgaria: Dr. Plamen Tchipev (*Institute of Economics, Bulgarian Academy of Sciences*), Ms. Tania Bouzeva (*ALIENA Consult Ltd., Sofia*), Dr. Ivaylo Nikolov (*Centre for Economic Development, Sofia*);

Croatia: Dr. Domagoj Racic and Mr. Josip Stajfer (*The Institute of Economics, Zagreb*), Mr. Andrej Galogaža (*Zagreb Stock Exchange*), Prof. Drago Čengić (*IVO PILAR Institute of Social Sciences*), Prof. Edita Culinovic-Herc (*University of Rijeka*);

Cyprus: Mr. Marios Clerides (Chairman) and Ms. Christiana Vovidou (*Cyprus Securities and Exchange Commission*);

Czech Republic: Prof. Lubos Tichy, Mr. Martin Abraham, and Mr. Rostislav Pekar (*Squire, Sanders & Dempsey, Cousellors at Law*), Dr. Petr Kotáb and Prof. Milan Bakes (*Charles University of Prague*), Dr. Stanislav Myslil (*Čermák Hořejš Myslil a spol, Lawyers and Patent Attorneys*), Dr. Jan Bárta (*Institute of State and Law, The Academy of Science of Czech Republic*), Ms. Jana Klirova (*Corporate Governance Consulting, Prague*);

Denmark: Prof. Jesper Lau Hansen and Prof. Ulrik Rammeskow Bang-Pedersen (*University of Copenhagen*);

Estonia: Prof. Andres Vutt (*University of Tartu*), Mr. Toomas Luhaaar, Mr. Peeter Lepik, and Ms Katri Paas (*Law Office of Lepik & Luhaäär*);

Finland: Prof. Matti J. Sillanpää (*Turku School of Economics and Business Administration*), Mr. Ingalill Aspholm (*Rahoitustarkastus/Financial Supervision Authority*), Ms Ari-Pekka Saanio (*Borenius & Kemppinen, Attorneys at Law, Helsinki*), Ms Johan Aalto (*Hannes Snellman, Attorneys at Law; Helsinki*);

France: Prof. Alain Couret (*Université Paris I- Panthéon-Sorbonne*), Ms. Joëlle Simon (*MEDEF - French Business Confederation*), Prof. Benoit Le Bars (*MC Université de Cergy-Pontoise*), Prof. Alain Pietrancosta (*Universities of Tours and Paris I- Panthéon-Sorbonne*), Prof. Viviane de Beaufort (*ESSEC-MBA*), Prof. Gerard Charreaux (*Université de Bourgogne Pôle d'économie et de gestion*);

Germany: Prof. Peter O. Muelbert (*University of Mainz*), Prof. Klaus Hopt and Dr. Alexander Hellgardt (*Max Planck Institute for Foreign Private and Private International Law*), Prof. Theodor Baums and Mr. Tobias Pohl (*Johann Wolfgang Goethe University, Frankfurt/Main*);

Greece: Prof. Loukas Spanos (*Centre of Financial Studies, University of Athens*), Dr. Harilaos Mertzanis (*Hellenic Capital Market Commission*), Prof. Georgios D. Sotiropoulos (*University of Athens*);

Hungary: Dr.Tamás Sándor (*Sándor Bihary Szegedi Szent-Ivány Advocats*), Dr. Andras Szecskay and Dr. Orsolya Görgényi (*Szecskay Law Firm - Moquet Borde & Associés*), Prof. Adam Boóc and Prof. Anna Halustyik (*Corvinus University of Budapest*);

Iceland: Mr. Gunnar Sturluson and Mr. Olafur Arinbjorn Sigurdsson (*LOGOS legal services*), Dr. Aðalsteinn E. Jónasson (*Straumur Investment Bank and Reykjavik University*), Mr. David Sch. Thorssteinsson (*Iceland Chamber of Commerce*);

Ireland Republic: Dr. Blanaid Clarke (*University College Dublin*), Ms. Kelley Smith (*Irish Law Library, Barrister*);

Italy: Prof. Guido Ferrarini and Mr. Andrea Zanoni (*University of Genoa*), Dr. Magda Bianco and Dr. Alessio Pacces (*Banca d'Italia*), Prof. Luca Enriques (*Università di Bologna*);

Latvia: Prof. Kalvis Torgans and Dr. Pauls Karnups (*University of Latvia*), Mr. Uldis Cerps (*Riga Stock Exchange*);

Lithuania: Mr. Virgilijus Poderys (Chairman) and Ms. Egle Surpliene (*The Securities Commission of Lithuania*), Mr. Rolandas Valiūnas, Dr. Jaunius Gumbis, and Dr. Dovilė Burgienė (*Lideika, Petrauskas, Valiūnas ir partneriai*), Dr. Paulius Cerka (*Vytautas Magnus University*), Mr. Tomas Bagdanskis (*Tomas Bagdanskis, Attorney at Law*);

Luxembourg: Mr. Jacques Loesch (*Linklaters Loesch Law Firm*), Mr. Daniel Dax (*Luxembourg Stock Exchange*);

Netherlands: Prof. Jaap Winter (*De Brauw Blackstone Westbroek, High Level Group of Company Law Experts European Commission Office (Chairman), University of Amsterdam*), Mr. Marcel van de Vorst and Mr. Gijs van Leeuwen (*Norton Rose Advocaten & Solicitors*), Mr. Johan Kleyn and Dr. Barbara Bier (*Allen & Overy LLP*), Dr. Pieter Ariens Kappers (*Boekel De Nerée*), Prof. A.F. Verdam (*Vrije Universiteit Amsterdam*), Prof. Mr. C. A. Schwarz (*Maastricht University*);

Norway: Prof. Kristin Normann Aarum (*Oslo University*), Prof. Tore Brathen (*University of Tromsø*), Prof. Jan Andersson (*University of Bergen*);

Poland: Prof. Stanisław Sołtysiński and Dr. Andrzej W. Kawecki (*The law firm of Sołtysiński Kawecki & Szlęzak*), Mr. Igor Bakowski (*Gotshal & Manges, Chajec, Don-Siemion & Żyto Sp.k.*), Dr. Piotr Tamowicz**,** Mr. Maciej Dzierżanowski, and Mr. Michał Przybyłowski (*The Gdańsk Institute for Market Economics*), Ms. Anna Miernika-Szulc_(*Warsaw Stock Exchange*);

Portugal: Mr. Victor Mendes (*CMVM – Comissão do Mercado de Valores Mobiliários*), Mr. Carlos Ferreira Alves (*CEMPRE, Faculdade de Economia, Universidade do Porto*), Prof. Manuel Pereira Barrocas (*Barrocas Sarmento Rocha - Sociedade de Advogados*), Dr. Jorge de Brito Pereira (*PLMJ - A.M. Pereira, Sragga Leal, Oliveira Martins, J dice e Associados - Sociedade de Advogados*), Dr. Manuel Costa Salema, Dr. Carlos Aguiar, and Mr. Pedro Pinto (*Law firm* Carlos Aguiar P Pinto & Associados), Mr. Antonio Alfaia de Carvalho (*Lebre Sá Carvalho & Associados*);

Romania: Mr. Gelu Goran (*Salans, Bucharest office*), Dr. Sorin David (*Law firm David & Baias SCPA*), Ms. Adriana I. Gaspar (*Nestor Nestor Diculescu Kingston Petersen, Attorneys & Counselors*), Mr. Catalin Baiculescu and Dr. Horatiu Dumitru (*Musat & Associates, Attorneys at Law*), Ms. Catalina Grigorescu (*Haarmann Hemmelrath Law Firm*);

Russia: Dr. Aleksandra Vertlugina (*KIT Finance, St. Petersburg*);

Slovak Republic: Dr. Jozef Makuch (Chairman) and Dr. Stanislav Škurla (*Financial Market Authority, Slovak Republic*), Dr. Frantisek Okruhlica (*Slovak Governance Institute*);

Slovenia: Prof. Janez Prasnikar and Dr. Aleksandra Gregoric (*University of Ljubljana*), Prof. Miha Juhart, Mr. Klemen Podobnik, and Ms. Ana Vlahek (*Securities Market Agency*);

Spain: Prof. Candido Paz-Ares (*Universidad Autonoma de Madrid*), Prof. Marisa Aparicio (*Universidad Autonoma de Madrid and Universidad Pontificia Comillas de Madrid*), Prof. Guillermo Guerra (*Universidad Rey Juan Carlos*);

Sweden: Prof. Per Samuelsson and Prof. Gerard Muller (*School of Economics and Management at Lund University*), Prof. Rolf Dotevall (*Göteborg University*), Dr. Catarina af Sandeberg, and Prof. Annina Persson (*Stockholm University*), Prof. Björn Kristiansson (*Linklaters Sweden*);

Switzerland: Dr. Urs P. Gnos (*Walder Wyss & Partners*), Prof. Gerard Hertig (*Swiss Federal Institute of Technology - ETH Zurich*), Dr. Michel Haymann (*Haymann & Baldi*), Prof. Wolfgang Drobetz (*University of Basel – WWZ*), Prof. Karl Hofstetter (*Universität Zürich*), Prof. Peter Nobel and Mr. Marcel Würmli (*Universität St. Gallen*);

UK: Prof. Antony Dnes (*Bournemouth University*), Prof. Dan Prentice and Ms. Jenny Payne (*Oxford University*), Prof. Brian R Cheffins, Mr. Richard Charles Nolan, and Mr. John Armour (*University of Cambridge*), Prof. Paul Davies (*London School of Economics*), Mr. Gerard N. Cranley, Ms. Holly Gregory, and Ms. Ira Millstein (*Weil, Gotshal & Manges*), Ms. Eva Lomnicka (*University of London*);

US: Prof. Mark Roe (*University of Harvard*), Prof. Edward Rock (*University of Pennsylvania Law School*), Prof. William Bratton (*Georgetown University*), Prof. Roberta Romano (*Yale Law School*).