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Abstract

The European Commission's draft directive (October 2002) proposes to introduce a squeeze-out right and a sell-out right and to set the price in a mandatory bid equal to the highest price paid in the 6 or 12 preceding months. Drawing on the existing literature, this paper analyses these three new provisions. In takeovers of widely held targets, the squeeze-out right and the sell-out right have the potential to resolve the collective action problem among shareholders, thereby ensuring the success of value-increasing takeovers and the failure of value-decreasing takeovers. Unlike the sell-out right, the mandatory bid rule requires competition by the incumbent to provide additional shareholder protection. In firms with a dominant shareholder, the mandatory bid rule eliminates inefficient control transfers at the cost of discouraging more efficient control transfers. The benefits but not the costs of the mandatory bid rule tend to disappear when control is consolidated via dual class shares or pyramids or when control benefits are determined by either environment or firm characteristics (but not by the blockholder's identity).

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1. Introduction

A first attempt to harmonize takeover regulation in the European Union dates back to the early 1970s. At the time most Member States showed little interest, and the project was shelved a couple of years later. Subsequent attempts to create pan-European takeover rules also failed, notably in 2001 when the European Parliament put a stop to the proposed directive.[1] Although blocked by the smallest possible margin, the rejection by the Parliament came as a surprise since the proposal had been amended several times following readings in the European Parliament, negotiations within the Council, and the ensuing conciliation procedure.[2] Despite this defeat the European Commission did not abandon its idea of a European takeover regulation. In September 2001 the Commission appointed a 'High Level Group of Company Law Experts' under the chairmanship of Jaap Winter to provide independent advice on issues related to pan-European rules for takeovers and subsequently on key priorities for modernizing company law in the European Union.[3]

In October 2002 the Commission presented a new draft directive that embraces much of the previous proposal rejected by the European Parliament, such as the requirement that shareholders have to approve defensive measures once a takeover bid has been launched. Unlike its predecessor, the new proposal defines the "equitable" price to be paid in a mandatory bid: it is the highest price paid by the new controlling party in the 6 or 12 months preceding the mandatory offer. (Henceforth, the term mandatory bid rule is meant to include this price requirement.) In addition, the new draft directive introduces a squeeze-out right and a sell-out right. These three additions to the directive are part of the recommendations of the Winter Group. But the Group made further suggestions aimed at neutralizing the effects of differentiated voting rights (dual class shares). More precisely, the Group proposed that differential voting power of shares should be voided in votes on defensive measures and – even more controversial – that a party owning a qualified majority (75 percent) of the equity capital can override any statutory defenses to exercise core control rights.[4] Since this so-called break-through rule encountered tremendous

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[1] For an account of the various attempts to regulate takeovers at the EU level see Skog (1995, 2002).
[2] In contrast, national regulation in most Member States evolved since the mid 1980s, many approximating in substance the UK City Code on Takeovers and Mergers.
[3] The Winter Group presented its first report on "Issues Related to Takeover Bids" in January 2002, and its second report on "A Modern Regulatory Framework for Company Law in Europe" in November 2002.
[4] According to Bennedsen and Nielsen (2002), one-fifth of all listed firms in Europe use shares with differentiated votes. In a substantial number of these firms, the break-through rule would undermine the veto right of the controlling owner. Moreover, a large group of firms with multi-class shares would be constrained in raising new equity capital as the controlling block would fall below the break-through threshold.

opposition, the Commission did not include it in the new draft directive.[5] Influenced by this recommendation, the current proposal stipulates, however, that restrictions on voting rights and on the transfer of shares (directed against a potential acquirer) are rendered unenforceable once a bid has been launched (Article 11).

Applying the insights of the existing takeover literature, this paper provides an economic analysis of the three aforementioned new elements of the current draft directive; mandatory bid rule, squeeze-out right, and sell-out right.[6] Takeover regulation defines the rights and obligations of the acquiring and target firm, such as the content of information issued to shareholders, the terms of the offer, and the defensive measures available to the target firm. These rules affect how the gains from a takeover are shared between acquiring and target firm, and thereby the incentives to make and accept a tender offer. This holds true also for the mandatory bid rule, the squeeze-out right, and the sell-out right.

This paper shows that in takeovers of widely held targets the squeeze-out right and sell-out right have far-reaching implications for the dynamics of the tender offer process. This holds despite, or more accurately precisely because, these rights are triggered after the completion of the takeover. More specifically, the squeeze-out right allows the bidder to overcome the free rider problem, thereby making value-increasing takeovers feasible (Yarrow 1985). The sell-out right with a threshold at 50 percent eliminates the pressure to tender problem and hence prevents all value-decreasing takeovers. Unlike the sell-out right, the mandatory bid rule requires competition by the incumbent to provide additional shareholder protection. Hence, the mandatory bid rule never simultaneously secures a bid premium and provides effective protection. In firms with a dominant shareholder, the mandatory bid rule eliminates inefficient control transfers at the cost of discouraging more efficient control transfers (Bebchuk 1994). The benefits of the mandatory bid rule tend to disappear when control is consolidated via dual class shares or pyramids or when the size of the control benefits does not depend on the blockholder's identity.

Much of the takeover literature, e.g., the seminal paper by Grossman and Hart (1980), presupposes a publicly listed target firm with dispersed ownership and with no takeover barriers, making shares and their votes freely transferable. Clearly, this does not depict (Continental) European reality very accurately. Indeed, the available evidence on

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[5] Some commentators characterized the break-through rule as an undue ex post intervention in contracts violating the very shareholder decision-making right that the Winter Group advocates (Bolton, 2002). Others argued that the proposal would affect existing corporate governance arrangements asymmetrically, in particular exempting and even promoting, for example, pyramids (Bebchuk and Hart, 2002).

ownership structures demonstrates that dispersed ownership of large firms is not the prevalent organisational form outside the United States and the United Kingdom (La Porta et al 1999, Barca and Becht 2001). Most (Continental) European companies, even the listed ones, have a large (controlling) shareholder. The resulting concentration of control (votes), often enhanced through dual class shares, pyramiding, or cross-holdings, constitutes a considerable - if not insurmountable - obstacle to hostile takeovers.[7] In addition to these firm specific takeover barriers, hostile bids are further impeded by institutional arrangements such as the (German) co-determination, close bank-firm relationships, and the relatively small fraction of (Continental) European firms listed on stock markets.

Although widely held firms are frequent exceptions rather than the rule in Europe, our analysis is mainly carried out within the framework of Grossman and Hart (1980). Their model that we review (section 2) is central to the understanding of the tender offer process and its difficulties. It also lends itself particularly well to illustrate the fundamental conflict between promoting an active takeover market and protecting (minority) shareholder interests. In fact, the Grossman and Hart model is a point of reference for many issues in the takeover (regulation) debate. Moreover, a public tender offer is not a valid option if the target firm has a majority shareholder. Instead, outsider and incumbent majority owner negotiate a sale of the controlling stake. Hence, an analysis of takeover regulation can restrict attention to widely held target firms, with the important exception of the mandatory bid rule. The sale of a controlling stake is affected by whether or not the buyer is obliged to extend his offer to all remaining shareholders. We therefore examine the impact of the mandatory bid rule in case of a widely held firm (section 3) and in the case of a firm with a majority owner (section 6).[8] Since the squeeze-out rule and the sell-out rule come into effect after the completion of a takeover, the pre-takeover ownership structure may seem inconsequential. As we will show, both rights have repercussions on the dynamics of the takeover outcome that are most pronounced for widely held targets. Hence, we discuss

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[6] We do not discuss Article 11, another innovation of the current proposal. In essence, its provisions further reduce the discretion of management to frustrate a (hostile) takeover, thereby strengthening the principle that the ultimate decision over a takeover must be with the shareholders (Berglöf and Burkart 2003).

[7] The purpose the break-through rule proposed by the Winter Group is to remove the (near) veto power of controlling shareholders over a control transfer in order to promote takeovers and restructuring. Burkart and Berglöf (2003) provide a theoretical analysis of the break-through rule.

[8] Theoretical research has yet to answer how the presence of a minority blockholder who does not counter-bid but either accepts or rejects the offer affects the takeover outcome. Introducing a minority block in the Grossman and Hart framework does not alter the outcome because the mass of small shareholders remains pivotal. In a framework with a finite number of shareholders, Holmström and Nalebuff (1992) show that large shareholders are willing to tender at lower prices than small shareholders. They do, however, not derive the mapping of ownership concentration (block size) into equilibrium bid prices.

the squeeze-out rule (section 4) and the sell-out right (section 5) also within the Grossman Hart setting.

In the remainder of this section we briefly address two broader questions; first, why regulations is necessary, and second, what its objectives should be.

1.1 Rationale for regulation

The position against mandatory (takeover) rules is based on the notion that a market economy achieves efficient outcomes without government intervention. If a certain provision, say an adequate shareholder protection, is in the interest of the firm, its founders provide it: Issuing claims in a competitive stock market is tantamount to efficient bargaining between founders and new investors. Since the founders are the residual claimants they choose claims (combination of return and control rights) that maximize total return. Hence, if it is efficient to protect shareholders adequately, provisions to this end will be included in the corporate charter.[9] Also, regulators lack the information to design efficient rules, let alone the problem that they may be captured by special interests.[10] Thus, it is clearly better to leave each firm the discretion to choose its own specific rules.

Obviously, private contractual agreements presuppose some minimum body of law, such as legal principles or default rules, as well as effective enforcement. Indeed, recent empirical work documents the limits to contractual solutions in poor legal environments (Nenova 2003). There are several arguments in support of more far-reaching regulatory intervention, i.e., mandatory rules. First, even if founders and initial investors agree on a set of provisions that maximizes their joint return, these provisions are unlikely to be the socially efficient ones. The reason is that initial negotiations cannot feasibly include all parties that will in the future contribute to the value of the firm. Being self-interested, founders and initial investors deviate from the socially efficient rules in order to extract a larger share of future surplus. For instance, founders and initial investors adopt rules that maximize their expected takeover returns, while the social efficient rules maximize the sum of the expected returns to target and acquiring firm.[11]

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[9] See e.g., Enriques, 2002, p. 27.

[10] For instance, the Connecticut anti-takeover bill was not supported by broad political coalitions but promoted by a firm incorporated in Connecticut (Romano 1987). In other cases, a firm that anticipated a takeover bid lobbied for the anti-takeover bill which was passed in an emergency session (Bertrand and Mullainathan 1999).

[11] In an extended Grossman and Hart (1980) model with endogenous private benefit extraction, Burkart et al. 1998 show that the socially optimally security-voting structure (fraction of non-voting shares) differs from the one that maximizes target shareholder return.

The above argument against enabling rules seems to suggest that privately written rules are likely to be inefficient because these rules are agreed upon at the beginning of the life cycle of a firm, when many relevant future events are simply unknown. As the firm evolves over time these rules should be adjusted. But contrary to mandatory rules, enabling rules precisely provide the flexibility needed to make these adjustments. The discretion to adapt rules comes, however, with a considerable cost, the inability to commit not to change rules for purely opportunistic reasons. For instance, dispersed small shareholders do not engage in monitoring but remain passive, leaving control de facto to management or to controlling blockholders. Given such a powerful position, it is straightforward for these parties to change corporate charter provisions to its own advantages. Thus, the option to adapt may prove to be disadvantageous, even though the optimal rules change over time.

Collective action problems due to dispersed ownership are another argument in favour of mandatory rules. Economic theory provides numerous examples of how individually rational behaviour undermines the socially preferred outcome. We will discuss two well-known manifestations of this problem; the success of value-decreasing bids and the failure of value-increasing bids. Ownership concentration would overcome these problems, but is, in particular for large firms, not a feasible or realistic option because of individual investors' limited wealth, because of their desire to diversify risk, and because of their preference for liquidity (Becht et al. 2002).

1.2 Regulatory objectives

Once we accept the idea that takeover regulation is warranted, the question arises what its objective should be. The current draft directive pursues the same objectives as its rejected predecessor: to create a level playing field conducive to takeovers and to ensure the protection of minority shareholders. Abstracting from harmonization which is specific to supranational legislation, these objective are shared by other takeover regulations such as e.g., the UK City Code.

The fundamental dilemma of takeover regulation is that (minority) shareholder protection and an efficient takeover market are conflicting objectives. Provisions that grant one side, say the acquirer, a larger fraction of the takeover gains necessarily translates into less protection of target shareholders as they receive less of the surplus.

In an efficiently functioning market for corporate control, a takeover succeeds whenever an outside party is able to generate more value than the incumbent

management. Such an outcome is only ensured if the entire surplus accrues to the acquiring party and none to the target shareholders (zero takeover premium). Similarly, efficiency also demands that takeovers should fail if the outsider is not able to create additional value. This obtains if an acquiring party has to pay at least what the firm is worth under the incumbent management (no negative takeover premium).

This argument seems to suggest that legal provisions granting target shareholders part of the takeover gains provide undue minority shareholder protection. All what is needed are rules preventing that target shareholders realize a loss. But matters are definitely more complex. The willingness of an acquirer to pay the current firm value is by no means proof that he can generate additional value. It may equally well be a reflection of agency problems with the acquiring firm. That is, an acquisition may be motivated by managerial self-interest (empire-building) rather than value creation. Even in the absence of such agency problems, there is an economic rationale for letting target shareholders participate in the takeover gains. Anticipating the possibility of a takeover premium, a rational investor is willing to pay more for the shares or to invest in shares.[12] That is, better minority shareholder protection in takeovers has beneficial ex ante effects: it reduces the cost of equity capital, it increases the attractiveness for firms to be listed, and it ultimately encourages entrepreneurial activity.

This reasoning does, however, not specify how much investor protection should be provided at the cost of making takeovers less attractive for potential acquirers. It merely argues that both minority protection and an efficient market for corporate control have beneficial effects and that takeover regulation has to trade-off ex ante against ex post efficiency considerations.

Finally, European regulation is by definition supranational and hence harmonization (one of) its raison d'etre. With respect to takeovers, the Commission advocates harmonization because common takeover rules are a key element of an integrated market and promote the development of a level playing field for (cross-border) bids. Obstacles to or distortions in cross-border takeovers due to differences in national regulations are surely undesirable. However, common rules promote a level playing field only if the harmonized jurisdictions are sufficiently similar along other relevant dimensions. Given the considerable variations of ownership and control arrangements within the European Union, this condition is hardly satisfied in case of takeovers. As a result, specific rules can easily

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[12] This argument is not restricted to takeovers but extends to the protection of outside investors in general. Recent empirical studies demonstrate clearly that the valuation and the breadth of capital markets (both equity and debt) increase with the quality of the legal investor protection (La Porta et al. 1997, 1998, 2000).

lead to different effects across Member States, making the playing field less leveled (Berglöf and Burkart 2003). For example, the proposed mandatory bid rule impedes the takeover of a typical German firm with its controlling owner but not that of a typical UK firm with its dispersed ownership.

2. Economics of the tender offer process

The role of ownership and control is a central theme in corporate finance. One of its important aspects concerns the dynamics of control allocation. Circumstances may and do arise in the evolution of a firm when the incumbent controlling party loses its comparative advantage in running the company and some other party is better suited for the task. For instance, the founder's heirs may not be as talented as the founder himself in managing the company. Yet, families often keep control rather than hiring a more able professional manager (Burkart et al. 2003). The family firm example shows that efficient transfers of control do not necessarily occur.

Takeovers are a key mechanism in the dynamic allocation of corporate control; they allow to remove inefficient managers (against their will) and to exploit synergies between firms. Moreover, the mere threat of a takeover affects the behaviour of those entrusted with control, i.e., disciplines them. Consequently, a functioning takeover market is widely considered an important component of - if not prerequisite for – an effective governance system. However, takeover decisions are like any other managerial decision subject to agency problems. Takeovers may also be undertaking by inefficient management teams motivated by the prospect of further control benefits. In fact, most takeovers are not undertaken by corporate raiders but by firms headed by professional managers (Shleifer and Vishny 1991). Also, takeovers may redistribute rather than create value, transferring wealth from bondholders or other stakeholders to target shareholders (Shleifer and Summers 1988).

Clearly, highly concentrated share ownership, restrictions on share transferability, or other takeover defenses hinder or even prevent tender offers. However, even in the absence of such barriers when ownership is dispersed and shares are freely transferable, the takeover market is plagued by a problem pointed to by Grossman and Hart (1980). We now review this so-called free-rider problem as it provides framework and foundation for our subsequent analysis of the mandatory bid rule, of the squeeze-out right, and of the sell-out right.

Grossman and Hart (1980) consider a firm with a fully dispersed ownership that is approached by an outside buyer, henceforth the bidder, who does not own any shares prior to the tender offer. Let q denote the per-share value under the incumbent management and v the value under the bidder's control where $v > q$.[13] That is, we restrict attention here to the commonly considered case of a value-increasing takeover. In the next section, we also explore whether a value-decreasing takeover in which target shareholders realize a loss can succeed.

In order to gain control, the bidder has to acquire at least 50 percent of the shares. (All shares carry the same number of votes.) The bidder makes an unrestricted offer with a price b for each share, conditional on getting (at least) 50 percent of the shares. The cost to the bidder of mounting a tender offer is $c > 0$ per share. Shareholders do not coordinate their response to the offer, and given the large number of shareholders each shareholder rightly presumes that his decision has a negligible impact on the outcome of the tender offer. To focus on the target shareholders' impact on the takeover outcome we abstract from both resistance by the incumbent manager and competition by another outside buyer.[14] For simplicity, we also assume that share values q and v and the takeover cost c are commonly known.

When deciding whether or not to accept an offer with a price b above the current share price q, each shareholder compares the benefits and costs of tendering in case of success and failure of the takeover. If less than 50 percent of the shares (votes) are tendered, the offer becomes void and the individual shareholder's decision is immaterial. The incumbent management remains in control and share value is q. If the offer succeeds, the shareholder gets the offered price b when tendering, and the post-takeover share value v when retaining his share. Thus, for any price b below the post-takeover share value v, each individual shareholder prefers not to tender. As all shareholders behave in the same manner, the tender offer can only succeed if the bidder offers at least the post-takeover share value. Clearly, the bidder cannot make a profit at a price $b = v$, in fact he incurs a loss due to the takeover cost c. Thus, we have replicated the seemingly paradoxical result of Grossman and Hart (1980): A value-increasing takeover attempt of a

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[13] For simplicity, we assume that the pre-takeover share price is not forward-looking, i.e., does not incorporate the possibility of a takeover, but is equal to q the share value under the incumbent management. The qualitative arguments would not change if we were to include the impact that the prospect of a takeover has on the current share price.

[14] More generally, a successful bidder has to win the target shareholders' approval and (at least) match any competing offer. Effective competition among bidders by definition implies that the requirement to outbid any rival, rather than winning shareholder approval, determines the bid price.

widely held firm cannot succeed because of the small shareholders' free-riding behavior. While the success of a value-increasing takeover is a public good for the target shareholders, each individual shareholder prefers to hold out to extract the maximum gains, and as a result the bid fails (is not undertaken).[15] This result neither depends on the amount of value improvement $v - q$ nor does it require that the target shareholders know the post takeover share value. Even if shareholders do not know the post-takeover share value, they can reasonable anticipate that it must exceed the offered price because the bidder would otherwise make a loss (Hirshleifer 1995).

The theoretical literature on takeovers suggests several ways how the bidder may overcome the free-rider problem. Of particular relevance in the context of takeover regulation is the proposal by Grossman and Hart (1980) that provides for bidders to withhold part of the post-takeover share value from minority shareholders. This creates a wedge between the post-takeover share value to the bidder and that to minority shareholders, enabling the bidder to make a profit. More precisely, suppose that a successful bidder can divert a fraction $\phi \in (0,1)$ of the resources as private benefits. For instance, the bidder could pay minority shareholders only $(1 - \phi)$ of the dividends that he collects.[16] Due to this dilution of the return rights, each shareholder is willing to tender at a price $b \geq v(1 - \phi)$ and the takeover succeed provided that the extracted private benefits cover the takeover cost $v\phi > c$.

Clearly, the proposal to allow bidders to extract private benefits conflicts with equal treatment but makes the trade-off between protecting minority shareholder and promoting takeovers very transparent. In addition, it illustrates that maximum shareholder protection need not be in the shareholders' best interest. Banning all extraction, i.e., imposing $\phi = 0$, prevents the bidder from making a profit, thereby frustrating takeovers. This is also costly for the target shareholders as they forgo the takeover premium (provided that ϕ is not too large such that $b \geq (1 - \phi)v > q$ holds).

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[15] With a finite rather than infinite number of shareholders, each individual shareholder takes into account that his decision is with positive probability pivotal, rather than negligible, for the aggregate outcome. Hence, he is willing to tender at a price (slightly) below the post-takeover share value, leaving the bidder some profits (Holmström and Nalebuff 1992).

[16] Discriminatory dividends are merely an illustrative example of diversion that should not be taken literally. Such outright theft of company profits is a blunt violation of the equal treatment principle, and would in most countries be prosecuted. In practice, there are, however, various more subtle forms of private benefit extraction that are either difficult to prove in court, or even not against the letter of the law. For instance, the bidder can sell at below market prices output or assets of the target firm to another firm under his control. Other forms of dilution are excessive salaries to the executive, the consumption of perks, the appointment of friends or family members to management positions.

There are several other ways to (partially) solve the free-rider problem. First, granting the bidder a squeeze-out right circumvents the problem. We defer the discussion of how the squeeze-out right affects the shareholders' tendering decision to section 4. Second, the acquisition of a stake prior to the tender offer also mitigates the free-rider problem (Shleifer and Vishny 1986).[17] Suppose the bidder already owns an initial stake $\omega < 50\%$ before mounting the tender offer. Even if the bidder cannot extract any private benefits ($\phi = 0$) and consequently has to offer a price $b = v$, the takeover may be profitable. While the bidder does not make a profit on the $1 - \omega$ shares acquired in the tender offer, the value improvement of his initial stake $\omega(v - q)$ accrues to him.[18] The essence of the Shleifer and Vishny argument is that the possibility to secretly acquire an initial stake prior to the tender offer is an important source of bidders' profits.[19] The regulatory implication is that disclosure rules are an important means to influence the prospective bidders' incentives and hence play a major role in shaping the level of takeover in the economy (Burkart 1999).

Finally, Mueller and Panunzi (2003) show how leverage may help to overcome the free rider problem. In a leveraged buyout shareholders anticipate that if they do not tender they will be minority shareholders in a highly leveraged company. Since debt is senior to equity, the post-takeover share value decreases with the amount of debt that the bidder issues. Thus, debt can be used to reduce the bid price, while the bidder gains because he can pocket (parts of) the proceeds from the debt issue.

These extensions and modifications of the Grossman and Hart (1980) model show that takeovers of widely held firms can be profitable. Thus, a more general re-statement of the free rider problem is that the bidder's prospects of making a profit on the shares acquired in the tender offer are very limited, if not completely frustrated.[20] As a result, too few takeovers are undertaken, and if a takeover occurs, most of the gains accrue to the target shareholders.[21] The extensive evidence on bidder and target returns, in particular

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[17] In fact, most corporate governance mechanisms used in the world can be viewed as examples of large investors exercising their power (Shleifer and Vishny 1997).

[18] The bidder's gain amounts to $\omega(v - q)$ only under the simplifying assumption that the bidder's purchase of his initial stake does not increase the pre-takeover share price. Accounting for this likely effect would reduce the bidder's profit and hence the likelihood that the takeover remains profitable.

[19] Kyle and Vila (1991) show that noise trading allows the bidder to acquire an initial stake at favourable prices so that a takeover can become profitable.

[20] This holds true even in the setting where the bidder can extract private benefits at the expense of the remaining minority shareholders. Given the bidder has control and extracts private benefits, he values the shares (not needed for having control) at $v(1 - \phi)$, the price that he has to offer the shareholders.

[21] Other (complementary) reasons why a bidder may fail to make a profit are competition by other bidders and defensive actions by the incumbent management.

during the 1980s, is consistent with this latter implication of the free-rider result (Burkart 1999).

3. Mandatory bid rule

Like its predecessor, the Commission's current draft directive obliges any party who has acquired control to make an offer to all remaining shareholders at an "equitable price". Following the recommendations of the Winter Report, Article 5(4) now defines the equitable price as the highest price paid by the bidder during the 6 or 12 preceding months. Though Article 5 allows for some flexibility, as Member States may adjust the price in circumstances and according to criteria that are clearly specified. The draft directive does not specify the control threshold, i.e., the percentage of voting rights above which control has been acquired, but leaves this definition to the Member States.[22]

As stated in the explanatory memorandum to the draft proposal, the Commission considers the mandatory bid rule to be indispensable for an adequate protection of minority shareholders. Thus, the Commission seems to subscribe to the view that the option to sell the shares protects each shareholder against potential expropriation by the bidder. This holds true if bids that are against the collective interests of the shareholders are deterred by a mandatory bid rule, or if the offered bid price exceeds the post-takeover minority share value. Otherwise, the option to sell would not offer any additional protection.

The preceding discussion of the free rider problem provides us with the analytical framework to examine to what extent the mandatory bid rule indeed protects minority shareholders. Extending this framework slightly, we now consider a widely held firm that is approached by a bidder who may be either value-increasing ($(1-\phi)v > q$) or value-decreasing ($(1-\phi)v < q$). For simplicity, we assume that the takeover costs are negligibly small. We continue to abstract from competition among bidders. For the evaluation of legal provisions aimed at protecting (minority) shareholders, the single bidder takeover is undoubtedly the more relevant case. When multiple bidders compete for a target, bids and counter-bids typically drive the price up beyond the level where regulatory provisions regarding minority protection would have an impact on the price.

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[22] Currently, the various mandatory bid rules in the Member States differ substantially; some countries refer to the highest price paid, others use different criteria such as average market value, and still others do not provide detailed provisions but only refer to general principles such as equal treatment of shareholders. By harmonizing the price to be paid in a mandatory offer, the Commission wants to improve legal certainty for cross-border takeovers. Given the perceived need for harmonization, it seems puzzling that the Commission does not also impose a common threshold for triggering mandatory bids.

As far as targets with dispersed ownership are concerned the mandatory bid rule amounts to a ban of bids restricted to the controlling stake, say 50 percent of the shares (votes). Thus, the impact of the mandatory bid rule is simply the difference between the outcome of an unrestricted bid and that of bid restricted to 50 percent. In case the restricted bid is oversubscribed we shall assume that the bidder purchases shares from all tendering shareholders on a pro rata basis.[23] We compare the two outcomes for a value-increasing bidder and value-decreasing bidder in turn.

From the shareholder's perspective, it is entirely irrelevant whether a value-increasing bidder makes an unrestricted or a restricted offer (Grossman and Hart 1988). As argued above, an unrestricted offer wins the shareholders' approval only if the bid price b matches at least the post-takeover minority share value $(1-\phi)v$. Moreover, the bidder does not voluntarily offer more than the price necessary to induce shareholders to tender. Thus, he offers $b = (1-\phi)v$, and the bid succeeds.[24] The same reasoning applies to an offer restricted to 50 percent of the shares. No shareholder tenders unless $b \geq (1-\phi)v$ in which case each shareholder tenders since he gets the offered price for (at least) half of his shares. As with an unrestricted offer, the bidder offers $b = (1-\phi)v$, and the bid succeeds.

Thus, the argument that the mandatory bid rule protects shareholders against potential expropriation does not hold in case of value-increasing bidder. It overlooks that the ability to extract private benefits affects the bid price and the post-takeover minority share value to the same extent. With or without mandatory bid rule, the bidder offers neither more nor less than the post-takeover minority share value, and shareholders realize the same return on the shares that they (can) sell and on those that they (have to) retain. Furthermore, the argument also seems to ignore that an active takeover market relies on bidders' private benefits. Unless a bidder has some source of profits that is not eroded by the small shareholders' free rider behaviour, he has little incentives to launch a takeover in the first place.

As far as target firms with dispersed ownership are concerned, the mandatory bid rule has no impact in case of a value-increasing bidder. Consequently, the rationale for the mandatory bid as a means for minority shareholder protection must rely on the belief or

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[23] Indeed, Article 3 of the draft directive obliges bidders to treat shareholders equally. Thus, if partial bids would be admissible a bidder could not exclude some tendering shareholders from an oversubscribed partial offer.

argument that in its absence takeovers bids can succeed even though they are against the interest of the target shareholders as at least some of them realize a loss. A closer examination shows that the success of a value-decreasing takeover is indeed an equilibrium outcome of the Grossman and Hart (1980) takeover model. If the bid fails, the tendering decision is immaterial. If the bid succeeds, each shareholder prefers to tender if the bidder offers at least the post-takeover share value, even if (or also when) the offered price is less than the pre-takeover share value under the incumbent management. Thus, a value-decreasing bid $q > b \geq (1-\phi)v$ can succeed against the collective interest of the shareholders. By offering (marginally more than) the post-takeover share value the bidder creates a pressure to tender (Bebckuk 1988). That is, tendering becomes individually rational as a hedge against the unfavourable minority position, even though each shareholder prefers the bid to fail. This holds true irrespective of whether the bid is truly value-decreasing ($q > v$) or whether it is value-increasing but imposes a loss on the target shareholders ($(1-\phi)v < q < v$).

As has been pointed out in the literature (e.g. Bebckuk and Hart 2001), the success of value-decreasing bids has the same cause as the failure of value-increasing bids: each shareholder bases his tendering decision only on a comparison between offered price b and post-takeover share value $(1-\phi)v$ without taking the current or pre-takeover share value q into account. As a result, a shareholder retains his shares even though he prefers the bid to succeed (free rider problem) or he tenders his shares even though he prefers the bid to fail (pressure to tender problem). It is to be noted, however, that failure of a value-decreasing bid is also an equilibrium outcome. Given that the bid fails, each shareholder may as well retain his shares, supporting failure as an equilibrium outcome.

Like in the case of value-increasing offers, neither the outcome nor the shareholders' return in a value-decreasing offer depends on the bid form. Given that the bidder offers $b = (1-\phi)v$ shareholders accept and realize the same loss $q - (1-\phi)v$ on the shares they (can) tender as on the shares they (have to) retain.[25] Thus, banning restricted offers through the mandatory bid does not by itself protect minority shareholder from value-decreasing bids. This conclusion implicitly assumes that shareholder approval, i.e., the free-rider condition $b \geq (1-\phi)v$, is the sole constraint an offer has to satisfy in order to

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[24] To be precise, each shareholder is indifferent at this price and may hence tender or retain his shares, and both success and failure can be supported as equilibrium outcomes. By swaying all shareholders into accepting the offer, an ε premium removes failure as an equilibrium outcome.

[25] This is also true in the equilibrium in which the bid fails since in this case the bid form has obviously no impact on the shareholders' payoff.

succeed. One may, however, argue that the current share value q imposes an additional constraint. Undoubtedly, a value-decreasing bid $b = (1-\phi)v < q$ would be beaten by a marginally higher offer from some third party. This counter-offer would also be profitable, even if neither incumbent management were replaced nor any changes made. The firm would simply be purchased at a price below its value. Such a risk free profit opportunity (arbitrage) cannot occur in equilibrium. Hence, competition by the incumbent[26] and the free-rider condition jointly determine the minimum price that a bidder has to offer to succeed, i.e. $b = \min[q, (1-\phi)v]$.

If the current share price imposes a lower bound on the bid price, the mandatory bid rule improves shareholder protection. In a regime with a mandatory bid rule, truly value-decreasing takeovers ($q > v$) are prevented, because the bidder would bear the entire value loss (Grossman and Hart (1988)). In addition, shareholders do not lose in value-increasing takeovers where the bidder is able to extract private benefits to an extent that the post-takeover value falls below the pre-takeover share value ($(1-\phi)v < q < v$).[27]

The above discussion shows that the mandatory bid rule improves minority shareholder protection if and only if competition by the incumbent forces bidders to offer at least the pre-takeover share value. Banning restricted bids has, however, no effect in case of value-increasing bids where the bid price is determined by the post-takeover share value ($b = (1-\phi)v > q$). Overall, the mandatory bid rule never secures a bid premium and simultaneously provides effective shareholder protection: Since $b = \min[q, (1-\phi)v]$, effective shareholder protection through the mandatory bid rule requires $b = q > (1-\phi)v$, while a bid premium implies $b = (1-\phi)v > q$. Hence, the benefits of the mandatory bid rule depends on the (perceived) likelihood that value-decreasing bids are launched and not rejected by the shareholders. In addition, the mandatory bid rule is not without potential shortcomings, since it reduces the bidders' scope to recoup the takeover cost (or equivalently, increase the takeover costs). Suppose that the post-takeover share value $(1-\phi)v$ is substantially larger than the current share value q, but that the takeover cost c is of the same magnitude as ϕ. An unrestricted bid is feasible only if $\phi > c$, while

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[26] The requirement $b \geq q$ accords with the positive takeover premia reported in all empirical studies (Burkart 1999).

[27] The obligation to treat all (tendering) shareholders equal limits a bidder's ability to define the offer terms. For instance, it prevents a bidder from accepting tendering shares on a first-come first-serve basis that would generate a strong pressure to tender. Equal treatment does, however, not ensure the failure of (partial) bids that are against the collective interest of the shareholders. As shown above, shareholders can accept a partial bid $b = q > (1-\phi)v$.

the condition for a restricted bid is $\phi > c/2$. Furthermore, it seems plausible that the (per-share) takeover cost are larger in a full acquisition because e.g., the higher financing need increases the (marginal) borrowing cost. Thus, the mandatory bid rule may prevent some value-increasing takeovers, in particular those bids where the bidder is unable to extract large private benefits (small ϕ values). Even if the mandatory bid rule does not prevent value-increasing takeovers, it can be to the target shareholders' disadvantage. In case multiple bidders compete for a target, the mandatory bid rule may lower the winning bid price (Bergström et al.1997; and Cornelli and Felli 1998).[28]

Finally, there are alternative ways to prevent the success of value-decreasing takeovers. Like the failure of a value-increasing takeover, the success of a value-decreasing bid is a reflection of the discrepancy between collective interest and individually rational choice. Both problems can be resolved by the following mechanism (Bebchuk and Hart 2001): First, a bidder seeking to buy a controlling stake asks all shareholders to vote on whether or not his offer shall be accepted or rejected. If the majority rejects, the offer is void. If a majority approves the offer, it becomes binding for all shareholders who are then treated equally, having to tender their shares on a pro-rata basis. The majority vote has to be binding to overcome the free-rider problem. By contrast, the pressure to tender is also removed by a mechanism that requires approval by majority vote and (at least) a majority of shares tendered separately. If a majority of shareholders were to accept the offer, disapproving shareholders still have the option to tender. Thus, the latter have no incentives to distort their preferences in the vote due to hedging considerations. When voting on the offer, shareholder compare pre-takeover share value with the returns from tendering or retaining their shares and all value-decreasing bids get rejected in the vote.[29] A simple way to implement this mechanism is an extension of the offer period in case a takeover bid succeeds. It allows shareholders to tender once the bid

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[28] Consider two competing bidders, bidder 1 and 2 with respective (per share) firm value (in the absence of private benefit extraction) v_1 and v_2. For simplicity, there are no takeover costs and both bidders have the same ability to divert corporate resources, i.e., the same ϕ value. Effective competition implies that $v_2 > v_1 > v_2(1-\phi)$. If the bidders are forced by law to compete with unrestricted offers bidder 2 wins at a price equal to v_1 as this is bidder 1's maximum willingness to pay when acquiring all shares. If the bidders compete with offers restricted to 50 percent of the shares, bidder 2 has to offer $v_1(1+\phi)$ in order to outbid bidder 1. Given $\phi < 1$ it follows that $1/2\left[(1+\phi)v_1 + (1-\phi)v_2\right] > v_1$ holds, i.e., that target shareholders realize a higher return when bidders compete with restricted offers.

[29] While a value-increasing bidder would secure majority approval in the vote, he would fail to acquire the necessary amount of shares because shareholders prefer to free ride. Hence, the vote needs to be binding to ensure the success of value-increasing takeovers.

has succeeded although they initially did not tender.[30] Thus, a regime with a pro rata requirement and an extension of the offer period protects target shareholders as effectively as the mandatory bid rule without discouraging as many value-increasing bids.

4. Squeeze-out right

Currently, most Member States grant majority shareholders the right to buy out remaining minority shareholders. The conditions under which this right can be exercised vary considerably, in particular with respect to the applicable threshold and the price to be offered (European Commission 2002, January). The new draft directive (Article 14) introduces a common squeeze-out rule. Provided that the bidder owns 90 percent of the equity capital, he can compel the remaining minority shareholders to sell their shares at the price offered in the preceding takeover bid.[31] Member States have the discretion to apply a higher threshold with an upper limit of 95 percent (unless the bidder acquired 90 percent of the equity capital through the bid). In case the target firm has multiple classes of shares, the threshold applies separately to each class. Finally, the right to buy out minority shareholders can be exercised only after the threshold has been reached through a tender offer.

Besides harmonizing European takeover rules, the Winter Group advocates the squeeze-out rule on the grounds that the continued protection of the rights of a small minority imposes disproportionately high cost on the majority owner (European Commission 2002, January). Minority shareholders may (threaten to) use their rights to jeopardize the majority owner's plans with the sole purpose of extorting undue concessions. Also in the absence of such hold-up problems, the continued presence of minority shareholders can be costly for the bidder.[32] For instance, the bidder cannot fully integrate the acquired firm with the activities and organization of his existing firm(s) and is hence unable to exploit all synergies.[33] Like the risk of obstruction, such forgone benefits

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[30] The Swiss takeover regulation contains such a provision (Article 27.2 BEHG 1995).

[31] When the market price is used as a proxy to set the squeeze-out price, the bidder's private information about the share value implies a lemon's problem (Bebchuk and Kahan 2000). This problem does not arise under the squeeze-out rule in the draft directive because the price is equal to the bid price if the squeeze-out right is exercised within three months after the end of the offer period of the takeover. Otherwise, the price is to be determined by an independent expert.

[32] The presence of minority shareholders also requires to maintain the infrastructure needed to enable them to exercise their rights, such as calling shareholder meetings and disclosing information.

[33] For instance, an acquiring firm with a controlling interest of less than 100 percent cannot transfer losses and profits between itself and the target firm to minimize the tax obligations (Bergström et al. 1994).

make takeovers less attractive to prospective bidders. Furthermore, the squeeze-out right is more efficient and effective than de-listing procedures.

In sum, the Winter Group argues that the squeeze-out rule makes takeovers more attractive because full (100 percent) ownership has a higher value to bidders than an ownership of a large majority, say 90 percent (in per-share terms). Suppose that this is indeed the case and that the bidder owns 90 percent following a takeover bid. In order to buy out the remaining 10 percent, he would be willing to offer more than what he was willing to pay for the 90 percent. However, anticipating such a higher second offer, each shareholder would hold out and wait for the second offer. Hence, the initial bid would fail, unless the bidder already offered the higher price. This example indicates that the squeeze-out rule has the scope to influence the dynamics of the tender offer process. In fact, even when the bidder values (in per-share terms) full ownership and ownership of a large majority stake equally, the squeeze-out right affects the bidding and tendering decisions. To highlight these effects, we make the simplifying assumption of no such valuation differentials.

The squeeze-out right enhances the bidder's scope for action beyond the mere option to buy out possibly disruptive minority shareholders. As Yarrow (1985) shows, the squeeze-out rule is "a simple and elegant solution of the free rider problem". To replicate this result, we introduce into our previous framework the squeeze-out right with threshold f, say $f = 0.9$. For simplicity, we assume that takeover costs c are negligibly small and set extraction ϕ equal to zero. Suppose further that the bidder conditions his offer b on getting at least the fraction f of shares, i.e., on being able to exercise the squeeze-out right.

Each shareholder continues to rightly presume that his tendering decision does not affect the outcome and compares the returns from tendering and retaining (for a given outcome). If less than f shares are tendered the offer is void, and the decision to tender is irrelevant. If f shares are tendered the shareholder receives the price b when tendering. If he retains his shares he either gets the price b or the post-takeover share value v, depending on whether or not the bidder exercises his squeeze-out right. The bidder will exercise the squeezes-out right when the price b is below the post-takeover share value v but not otherwise. As a result, the shareholder realizes at most a return equal to b when retaining his shares (in case the bid succeeds). Hence, provided that the bidder reaches the threshold f, each shareholder is indifferent between tendering and not tendering and may as well accept the offer even when the bid price is below the post-

takeover share value ($b < v$).[34] The shareholders' indifference implies that failure, like success, is an equilibrium outcome.

Thus, the squeeze-out right makes takeovers feasible at a price below the post-takeover share value. Provided that the bid is conditioned on the squeeze-out threshold, it is impossible for target shareholders to become a minority shareholder, thereby solving the free rider problem. This has several implications. First, a takeover can be profitable even when the bidder owns no initial stake ($\omega = 0$) and when he is unable to dilute minority shareholders ($\phi = 0$).

Second, the result does not depend on whether or not the offer price is above or below the pre-takeover share value. To rule out the success of takeover bids at prices below the pre-takeover share value ($b < q$), we have again to invoke competition by the incumbent, thereby imposing the pre-takeover share value as the lower price limit for a successful bid. With the additional constraint $b \geq q$, all value-decreasing takeovers ($v < q$) are prevented, since the bidder would bear the entire value loss $q - v$. Since shareholders accept an offer $b = q$ conditioned on the threshold f, the bidder can extract the entire surplus $v - q$, and all value-increasing takeovers ($v \geq q$) occur (Amihud et al. 2003).

Third, the bidder can extract the entire surplus $v - q$, and thus all and only efficient takeovers occur whether the threshold triggering the squeeze-out right is 90 or say 60 percent. The threshold f becomes relevant only in a framework in which the supply of tendered shares is upward-sloping because target shareholders have for instance different liquidity needs or tax rates (Hirshleifer and Titman 1990, Stulz 1988). In such a setting, a higher threshold requires the bidder to offer a higher price in order to reach the threshold and squeeze-out the remaining minority shareholders. As this reduces the bidder's profits, the choice of the squeeze-out threshold involves a trade-off between promoting takeovers and protecting minority shareholders.

To conclude, the squeeze-out right leads to significant redistributions of the takeover gains. Rather than having to let target shareholders appropriate the bulk of the gains, the bidder can exclude them from the surplus. Hence, in regimes with a squeeze-out right, one would expect bidders to choose offers that are conditioned on the squeeze-out threshold level. Similarly, one would expect that bidders' returns in regimes with a squeeze-out right are (much) higher than in a regime without squeeze-out right.

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[34] If the bidder were to offer a higher price in the squeeze-out than in the tender offer, he would re-create the free rider problem. All shareholders would want to participate in the squeeze-out, i.e., would not accept the initial offer.

5. Sell-out right

The new draft directive also introduces the sell-out right (Article 15). It is the quid pro quo for the minority shareholder of the squeeze-out right for the majority shareholder.[35] Accordingly, the conditions under which the minority shareholders can exercise the sell-out right mirror those of the squeeze-out right. Provided that the majority shareholder owns 90 percent of the equity capital, the remaining minority shareholders can compel him to buy their shares at the price offered in the preceding takeover bid. Member States have the discretion to increase the threshold up to 95 percent of the equity capital. In case the target firm has multiple classes of shares, the threshold applies separately to each class.

In its report, the Winter Group motivates the introduction of the sell-out right with two kinds of arguments (European Commission 2002, January). The first kind reverses the Group's arguments in favour of the squeeze-out right. After a takeover, the majority owner may abuse his dominant position, or in corporate finance parlance, extract private benefits at the expense of the minority shareholders. This problem becomes more severe once the majority stake becomes very large fraction, because the minority rights granted by law are in some Member States no longer available if minority holdings fall below a certain level. Furthermore, the market for shares becomes very illiquid in such situations, preventing an exit at a "fair price".

The second type of arguments on which we focus refers specifically to the tender offer process. The Winter Group argues that the sell-out right is a means to counter the pressure to tender. In particular, the sell-out right amounts to an extension of the offer period: Shareholders who have rejected the offer initially – perhaps in the endeavour to make it fail – get the opportunity to tender their shares once the bidder has gained control (and reached the threshold triggering the sell-out right).

At first glance, the sell-out right looks like a toned-down version of the mandatory bid rule. The mandatory bid rule enables all shareholders to sell their shares, while the squeeze-out right grants this option only if the majority shareholder owns 90 percent following a takeover. Hence, it is hardly surprising that the sell-out right neither affects the outcome nor the shareholders' return in a value-increasing takeover. A value-increasing bidder offers a price equal to the post-takeover share value, and shareholders realize the same return whether they tender or not. Given that the price in the sell-out is the bid price,

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[35] About half the Member States provide a sell-out right and the national provisions vary along the same dimensions as the national squeeze-out provisions (European Commission 2002, January).

remaining minority shareholders do not benefit from the sell-out option.[36] Moreover, if a bidder is able to expropriate minority shareholders more when the minority becomes (very) small, as argued by the Winter Group, he can exploit this already in the tender offer. He simply makes an offer conditional on the sell-out threshold, thereby ensuring that in case of success the bid price is indeed equal to the further reduced post-takeover minority share value.

Another difference between sell-out right and mandatory bid rule concerns the timing. The sell-out right applies after the completion of a takeover, while the mandatory bid rule, being a condition on the offer, applies prior to the completion of the bid. Due to this difference, the sell-out right mitigates the pressure to tender problem, while the mandatory bid rule has no such effect. (The mandatory bid rule improves minority protection only to the extent that competition by the incumbent forces bidders to pay all shareholders at least the pre-takeover share value.)

Suppose that a value-decreasing bidder offers the post-takeover share value $b = (1-\phi)v < q$ and that no third party (incumbent) can finance a counter-bid. If the takeover succeeds and the bidder reaches the sell-out threshold, the sell-out right allows the shareholder to sell his shares at the same terms also after the takeover. Thus, there is no need to tender (accept the offer) only to avoid becoming a minority shareholder. This does, however, not hold for the outcome in which the takeover succeeds but the sell-out right is not triggered. Although this outcome is never reached in equilibrium, the mere possibility of it upholds the pressure to tender. The incentives to accept a value-decreasing bid are removed by setting the sell-out threshold such that only two outcomes are feasible, failure or success where the sell-out right is triggered. Obviously, this is implemented by setting the threshold at 50 percent.

The sell-out right with a 50 percent threshold operates in the same manner as the aforementioned extension of the offer period following a successful takeover (section 3). Both rules allow shareholders to reject the offer without forgoing the option of selling their shares if the takeover happens to succeed. Given a second opportunity to sell there is no need to hedge against the minority position, and shareholder do not accept bids below the pre-takeover share value. In case a takeover succeeds, all remaining shareholders

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[36] Abstracting from noise or irrationality, the sell-out right plays typically no role in the equilibrium of the takeover game. If shareholders are homogenous and the post-takeover share value does not depend on the fraction owned by the bidder, the bid either fails or all shareholders tender. In a framework with an upward-sloping supply curve, remaining minority shareholders do not want to exercise the sell-out option since their valuation of the minority share exceeds the bid price. This is the very reason why they preferred not to tender their shares in the first place.

exercise their sell-out right if the bid price exceeds the post-takeover share value. Hence, all value-decreasing takeover are prevented.[37]

To conclude, the sell-out right is indeed equivalent to an extension of the offer period and has the potential to mitigate the pressure to tender. It, however, removes the pressure to tender effectively only at 50 percent threshold level.

6. Controlling owners and mandatory bid rule

As mentioned in the introduction, even listed (Continental) European firms typically have a controlling or dominant shareholder, rather than a dispersed ownership (La Porta et al 1999, Barca and Becht 2001). Therefore, an assessment of the new draft directive – or more precisely, of mandatory bid rule, squeeze-out right, and sell-out right - has to include the impact of these provisions on control transfers involving firms with controlling or dominant shareholders.[38]

The preceding analysis shows how in takeovers of widely held firms the squeeze-out right and the sell-out right can resolve the free rider problem and the pressure to tender problem respectively. Neither of these problems impairs the (in)efficiency of a control transfer involving firms with controlling shareholders. Hence, we can restrict our analysis of such control transfers to the mandatory bid rule. This does, however, not mean that minority shareholder protection is peripheral in the regulatory debate. In fact, the contrary applies.

Drawing on Kahan (1993) and Bebchuk (1994), we consider a firm controlled by an incumbent blockholder that is approached by an outside investor (henceforth rival) who would like to take control. The incumbent owns a fraction α of the return rights, and the remaining $(1-\alpha)$ is dispersed among small shareholders. The incumbent's block α may be larger or smaller than 50 percent. In the latter case, a dual class share structure ensures that the incumbent has nonetheless a majority of the votes. Under the incumbent's control, security benefits (total share value) are equal to X_I. In addition, the incumbent enjoys private benefits Z_I. If the rival gains control, security benefits are X_R and the rival's private benefits are Z_R. For simplicity, we do not explicitly consider that

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[37] Granting a second opportunity to sell does not change the free rider problem.
[38] Control over a firm does not necessarily require a majority of votes, in particular, when the remaining shares are dispersed, a minority block may be sufficient. For instance, neither the Ford nor the Wallenberg families own a majority of votes.

private benefits are (in part) extracted at the expense of the security benefits.[39] It also proves convenient to express all values in absolute terms rather than in per-share terms. The parameters X_I, X_R, Z_I, and Z_R are common knowledge. We refer to a control transfer as efficient (inefficient) if the sum of security benefits and private benefits under the rival's control exceeds (falls short of) the sum under the incumbent. Finally, it is useful to define $\Delta X = X_R - X_I$ and $\Delta Z = Z_R - Z_I$.

Subsequently, we identify the conditions under which efficient and inefficient control transfers takes place, first in a regime without the mandatory bid rule and then in a regime with the mandatory bid rule. The impact of the mandatory bid rule follows from a comparison of those conditions.

In the absence of a mandatory bid rule, incumbent and rival are not obliged to let the minority shareholders participate in the control transaction, and control can be transferred through a block trade at mutually agreeable terms. Since the subsequent arguments do not hinge on a specific block price, we abstract from its determination.[40] Having purchased the controlling block from the incumbent, the rival has always the option to make a voluntary tender offer to the dispersed small shareholders. Due to the free-rider behaviour, the rival does not gain from acquiring the remaining $1-\alpha$ dispersed shares and merely acquires the controlling block. Hence, a necessary and sufficient condition for a control transfer is that the block has a higher value under the rival's control than under the incumbent, or formally that $\alpha X_R + Z_R > \alpha X_I + Z_I$ holds.

By comparing this condition with the efficiency requirement ($\Delta X + \Delta Z > 0$) two conclusions emerge (Bebchuk 1994). First, an efficient control transfer may fail to take place. This inefficiency obtains in the parameter range $-[(1-\alpha)/\alpha]\Delta Z > \Delta X + \Delta Z > 0$. When the incumbent's private benefits are relatively large compared to the rival's private benefits, the incumbent does not want to trade. This may hold true even though a control transfer is efficient because the higher security benefits under the rival's control more than compensate his lower private benefits. The inefficiency arises because the incumbent and the rival do not take into account that a control transfer gives rise to a positive externality, i.e., also benefits the small shareholders.

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[39] Transforming security benefits X_J and private benefits Z_J with $J = I, R$ into the previously used specification that explicitly accounts for this relationship yields $X_J = (1-\phi)V_J$ and $Z_J = \phi V_J$.

[40] In the theoretical literature, the block price is typically the outcome of a bargaining game between incumbent and rival that depends on the parties' outside options (see e.g., Burkart et al. 2000).

Second, an inefficient control transfer may occur. Being the mirror image of the above inefficiency, this outcome obtains whenever $0 > \Delta X + \Delta Z > -[(1-\alpha)/\alpha]\Delta Z$ holds. When the rival's private benefits are relatively large compared to the incumbent's private benefits, incumbent and rival may want to trade the block even though the incumbent generates higher security benefits. The inefficiency is due the fact that incumbent and rival fail to internalize the negative impact that a control transfer has on the $1-\alpha$ widely held shares.

In the regime of the draft directive the rival cannot simply buy the controlling block from the incumbent but is obliged to offer all small shareholders the same conditions.[41] In such an environment, a control transfer takes place if, as before, it is mutually beneficial to rival and incumbent, and if the rival earns a profit when offering small shareholders the same per-share considerations. The incumbent agrees to sell control only if the rival compensates him for the security benefits of his stake αX_1 and the forgone private benefits Z_I (control premium). Having to extend these terms to the small shareholders requires the bidder to offer at least $X_I + Z_I/\alpha$ for the entire firm. Hence, a control transfer takes place under the mandatory bid rule if $X_R + Z_R > X_I + Z_I/\alpha$ holds. In this case, minority shareholders typically receive more than the security benefits under the rival's control, because they also get the incumbent's compensation for the forgone private benefits. (This holds true if $X_I + Z_I/\alpha > X_R$.)

Comparing the condition $X_R + Z_R > X_I + Z_I/\alpha$ with the efficiency requirement yields the following two results. First, an efficient control transfer may not take place. This inefficiency obtains whenever $[(1-\alpha)/\alpha]Z_I > \Delta X + \Delta Z > 0$ holds. The mandatory bid rule obliges the rival to offer all shareholders the control premium that he pays the incumbent. When the incumbent's private benefits are large this requirement may inflate the price above the sum of security benefits and private benefits under the rival's control, even though the control transfer is efficient.

Second, the mandatory bid rule prevents all inefficient transfers. The price at which the incumbent is willing to sell the controlling block implies that the price for the entire firm exceeds the sum of private and security benefits under the incumbent's control ($X_I + Z_I/\alpha > X_I + Z_I$). Thus, block transfer and subsequent mandatory bid necessarily imply efficiency.

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[41] Some national regulations are less stringent and allow for a discount relative to price paid in the block acquisition (Ferrarini 2002).

The mandatory bid rule redistributes part of the control transfer gains from the rival to the small shareholders. This redistribution has two opposing effects.[42] On the one hand, it protects minority shareholders from inefficient control transfers.[43] On the other hand, the redistribution makes it more likely that an efficient control transfers fails to take place.[44] This is also to the disadvantage of the small shareholders when the rival is able to generate higher security benefits than the incumbent ($X_R > X_I$). Indeed, empirical studies on controlling block trades in the United States find that such trades are on average associated with abnormal share price increases (Holderness 2002). This evidence suggests that improved management rather than extraction of private benefits is the primary source of gains in block trades. Further empirical work has to show to what extent these findings hold also in environments with weaker shareholder protection.

Overall, the mandatory bid rule strengthens minority shareholder protection at the expense of promoting efficient control transfers. Its merits therefore depend on the perceived likelihood that inefficient control transfers take place and that efficient control transfers fail. Two observations illustrate that the likely benefits and costs of the mandatory bid rule are sensitive to the environment.

First, the mandatory bid rule loses its advantage when private benefits are (predominantly) determined by the environment in which the firm operates or by the characteristics of the firm rather than by the identity of the controlling blockholder, i.e., when $Z_I \cong Z_R > 0$.[45] In this case, inefficient control transfers do not take place in a regime without the mandatory bid rule, and fewer efficient transfers are discouraged. When the rival's and the incumbent's private benefits are of the same order of magnitude, both efficiency and surplus from a block trade only depend on the security benefits. This precludes the possibility that a block trade is beneficial but the control transfer is inefficient.

Second, a reduction in the size of the controlling block, i.e., of the attached return rights, makes it more demanding to satisfy the condition for an efficient control transfer.

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[42] Under less stringent rules that allow for some discrimination between per share price in the block trade and the tender offer, these two conflicting effects are both diluted. That is, fewer value-increasing control transfer are frustrated, but some value-decreasing transfers are not prevented.

[43] In a framework where the bidder chooses the extent of inefficient private benefit extraction, the mandatory bid rule has an added beneficial effect. It increases the rival's final equity stake and thereby mitigates the private benefit extraction problem (Burkart et al. 2000).

[44] In the absence of the mandatory bid rule, a prerequisite for the failure of an efficient control transfer is $Z_I > Z_R$. Hence, the condition for a control transfer is stronger with the mandatory bid rule than in its absence, i.e., $[(1-\alpha)/\alpha]Z_I > -[(1-\alpha)/\alpha]\Delta Z$.

[45] In a sample of 412 controlling block transactions from 39 countries, Dyck and Zingales (2002) document considerable variation in the size of private benefits across countries. This finding suggest that national corporate governance plays an important role in shaping the size of private benefits of control.

This is true in a regime without and with the mandatory bid rule, but the effect is larger with the mandatory bid rule. In fact, the difference between the two conditions is $[(1-\alpha)/\alpha]Z_R$ which is decreasing in α. Thus, the adverse effect of the mandatory bid rule is exacerbated in environments where the controlling owner holds less return rights because of pyramiding or dual class shares. This suggests that such mechanisms for separating ownership and control should be removed prior to the introduction of a mandatory bid rule.

7. Conclusions

This paper provides an examination of the economic underpinnings of three new provisions of the draft takeover directive (October 2002), the squeeze-out right, the sell-out right, and the requirement that the price in a mandatory bid has to equal the highest price paid in the 6 or 12 preceding months. These provisions affect the distribution of the takeover gains, and thereby the incentives to make and accept a bid. Better (minority) shareholder protection lowers the ex ante cost of capital but reduces the takeover activity and hence ex post efficiency. This is the fundamental trade-off that any rule governing takeovers has to confront.

The focus of our analysis is how these new provisions affect the dynamics of the tender offer process in takeovers of widely held target firms. The squeeze-out right allows the bidder to overcome the free rider problem, while the sell-out right has the potential to eliminate the pressure to tender problem. By contrast, the mandatory bid rule has an effect only if competition by the incumbent constrains the acquirer from making a bid below the pre-takeover share value.

Taking a broader perspective, we want to comment on the Commission's apparent approach to a European takeover regulation. First, rather than merely emulating the UK City Code, we believe that a more open-minded approach should have been applied on some issues. Recent advances in corporate finance identify novel mechanisms to address known problems in takeovers. For instance, a combination of voting and tender offer overcomes the free rider problem and the pressure to tender problem (e.g., Bebchuk and Hart 2001). Instead of retaining the mandatory bid rule, European corporate governance may have been better served through an adaptation of the Bebchuk-Hart scheme.

Second, harmonization undoubtedly facilitates many aspects of cross-border takeovers. However, in view of the considerable differences in control and ownership pattern across Europe, harmonization also has downsides. A specific rule likely to promote

takeovers in one Member States may have the opposite effect in another Member State (Berglöf and Burkart 2003). More generally, importing a takeover regulation developed within the Anglo-Saxon institutional setting into the current Continental European context may undermine rather than improve its current governance mechanisms.

Finally, we would like to point out an omission in the current draft proposal. The Second Council Directive of the European Economic Community (1976) de facto severely impedes – or even prohibits - leveraged buyouts.[46] In view of the importance of leveraged buyouts for the United States' market for corporate control, this directive conflicts with the ambition of an active European takeover market. An amendment that explicitly allows for the possibility of financial assistance by the target firm to acquire its shares is called for as was recently done in Italy (Art. 2501-bis of the Italian Civil Code).

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[46] Article 23 states *that* "A company may not advance funds, nor make loans, nor provide security, with a view to the acquisition of its shares by a third party."

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