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"Family" ownership, tunneling and earnings management:
A review of the literature

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"Family" ownership, tunnelling and earnings management: A review of the literature[*]

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Abstract

In this review article, we bring together a number of aspects of family firms that are ubiquitous in a number of institutional contexts, often as part of larger business groups. We pay particular attention to the mechanisms by which families retain control over firms, and the incentives of the families in control to expropriate other stakeholders by way of tunnelling. We examine the role of earnings management in facilitating tunnelling, and evidence about the incidence of earnings management in family firms. Our review suggests that while the literature on these aspects of family control is rich, the contexts in which the empirical exercises are undertaken are relatively few, and hence there is considerable opportunity to expand it to other contexts, in particular in the form of cross-country comparisons of the relative impact of agency conflicts and institutions on these issues.

Keywords: family control, group affiliation, agency problem, tunnelling, earnings management

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1. Introduction

Following the publication of the seminal paper of Jensen and Meckling (1976), it has become stylised to view operations of firms through the prism of agency conflicts. Indeed, there are now a large number of papers that examine different aspects of the agency conflict between owners and managers of firms with dispersed ownership, e.g., impact of this agency conflict on firm performance and managerial decisions about use of free cash flows (see Shleifer and Vishny, 1997). The focus on this particular type of agency conflict is not surprising, given that the empirical basis for this literature was widely held firms in the Anglo-Saxon world, in particular, in the United States.

However, researchers have now accepted the view that widely-held firms might be a minority in the corporate world, especially if we take into consideration organisational forms in continental Europe and the developing world. A large number of firms are actually controlled by families, either through direct control of shares or through indirect control mechanisms like pyramidal structures. In India, for example, about 70 percent of the firms are family-controlled (Piramal, 1996). Even in the United States, about a third of the Standard and Poor's 500 companies are family owned, and the families account for 11 percent of these firms' cash flow rights and 18 percent of their voting rights. (Ali, Chen and Radhakrishnan, 2007; Villalonga and Amit, 2007).

Family-ownership of firms eliminates the agency conflict between the managers and the owners. Across countries, family members account for a large proportion of the CEOs and Chairmen in family-controlled firms, and almost all such firms have significant representation of the family on their boards. The separation between management and ownership of the firms, the basis of what we shall call *Type 1* agency conflict, is therefore weak. However, these firms are noted for another type of agency conflict – one we shall call *Type 2*, that between the controlling shareholders (or families) and the minority shareholders.

The replacement of one type of agency problem with another has important implications for family firms. Agency theory suggests that the elimination (or reduction) of Type 1 agency problems in family firms should enhance performance, and, as we discuss later

in this paper, there is evidence to suggest that this is sometimes the case. However, the positive impact of this convergence in the interests (and identity) of the (controlling) owners and managers may be outweighed by the negative impact of management entrenchment. The controlling families might then maximise their private benefits, at the expense of other shareholders. Specifically, there is evidence of expropriation of non-family shareholders by the families who control these firms, especially where the voting rights of the families significantly exceeds their cash flow rights (e.g., Bertrand, Mullainathan and Mehta, 2002; Gao and Kling, 2007). The extent of this expropriation – popularly called "tunnelling" (Johnson et al., 2000) – is especially high in countries that have weak legislative protection of the rights of the minority shareholders.

It is now understood that tunnelling can take the form of expropriation of cash flows, or assets, or equity, or a combination of two or more of these firm attributes (Atanasov, Black and Ciccotello, 2008). Expropriation of cash has implications for the earnings statement, while expropriation of assets and equity has implications for the balance sheet. In the long run, both forms of expropriation results in loss of earnings for minority shareholders, either directly or by way of loss of productive assets. Any perception of expropriation can, in turn, reduce outside investment in these firms and, hence, reduce the opportunities of expropriation. All this has implications for earnings management by firms. Indeed, there is evidence to suggest that the likelihood of earnings management is greater among firms in which ownership is concentrated in the hands of blockholders like families (Fan and Wong, 2002).

In the rest of this review article, we shall examine the nature of family firms, the incentives for expropriation, and the ways in which earnings can be managed. Specifically, in Section 2, we examine the nature of family firms and the incentives of the controlling families to expropriate (current and future) earnings. In Section 3, we discuss the phenomenon of tunnelling, and its likely impact on market valuation of a firm. In Section 4, we discuss aspects of earnings management. Finally, in Section 5, we draw conclusions from the literature discussed in the rest of the paper.

2. Family Firms

Social scientists have discussed a number of reasons that can explain the existence of family firms, especially in developing countries. Economists argue that existence of family firms is a consequence of imperfections in the market for managerial talent or a market for corporate control (Burkart, Panunzi and Shleifer, 2003). In the absence of a market for managerial talent, for example, firms may have to depend on successive generations of the founding families to provide managerial personnel. Similarly, if there is no market for takeovers, such that it is difficult to credibly threaten the management of poorly performing companies with the prospect of a takeover, the convergence of management and ownership could be a (second best) response aimed at ameliorating the Type 1 agency problem. The latter argument has been extended to argue that family ownership of firms is an optimal outcome in circumstances where the cost of contract enforcement is high, such that informal agreements or social norms backed by the threat of social sanctions are used to facilitate transaction or resources and output, thereby explaining the ubiquity of family firms in China (Redding, 1990; Peng and Heath, 1996). The role of trust among family members in mitigating Type 1 agency problems, in particular, has been examined by management scholars (Yeung, 2006).

Alternative to the market imperfections argument suggest that family firms might be an outcome of factors such as altruism, externalities associated with social capital, and high cost of contract enforceability. Reciprocal altruism among family members could reduce their reservation price for key resources, thereby allowing them to outbid (or undercut) non-family firms in the product market (Eaton, Yuan and Wu, 2002). Similarly, while a firm can prosper with addition to its social capital, it may not acquire this social capital from a widely dispersed group of individuals because the private benefits of these individuals would be much less than the aggregate social capital of the firm. If the firm is owned by a family, however, it can acquire the social capital of the family, an institution that heavily invests in social capital (Arregle et al., 2007).

Family firms are often members of wider business networks (Ghemawat and Khanna, 1998; Peng and Delios, 2006), and the "market imperfection" view of family firms can be

extended to explain this phenomenon (Khanna and Palepu, 1997). For example, if capital markets are imperfect, internal accruals of firms may be the dominant source of funds for investment. In such cases, existing firms with internal accruals are in a better position to start new business ventures (Riyanto and Toolsema, 2008), resulting in the formation of business groups that use internal capital markets to mitigate the problems associated with capital market imperfections. It has been demonstrated that membership of business groups might also act as a signal that makes it easier to access external funds (Ghatak and Kali, 2001; Lesnik, van der Molen and Gangopadhyay, 2003). Friedman, Johnson and Mitton (2003) argue that propping is used as *de facto* collateral by group-firms, to ensure credit flows into a weak member of the group, in environments where the cost of enforcing debt covenants can be high. They cite the example of Lee Kun Hee, the head of the family that controls the Samsung Group, who used his personal wealth to pay off the debts of Samsung Motors Inc. Finally, in contexts where family businesses are the optimal organisational form, given factor market imperfections and costs of contract enforcement, among other things, the existence of family-affiliated business groups can perhaps also be explained by the economies of scope associated with intangible and tangible resources such as knowledge of the business environment and distribution channels that are disproportionately concentrated in existing firms (Guillen, 2000).

Once a family firm comes into existence, retaining control of it may be the optimum strategy for the family if the legal institutions supporting contract enforcement is weak such that retaining control is the only certain way of retaining control over cash flow rights (Bertrand et al., 2008). Further, three different benefits accrue to the family if it preserves control. First, the family may derive non-pecuniary utility from the control over the firm, e.g., the ability to pass the firm over to subsequent generations, or the ability to sponsor a favourite sporting event. Second, a long-established family "name" might signal quality, access to the corridors of power etc – e.g., Reliance or Tata in India, such that the value of the firm might decline if the family in question no longer retains control over the firm. In other words, the value of its share of the firm might be higher for the family if it holds on to control than if it

attempts to liquidate its share of the firm. Third, control might give the family the ability to appropriate a disproportionate share of the firm's current and future cash flows, at the expense of the minority shareholders (Johnson et al., 2000). Hence, a family relinquishes control over a firm to professional management only when the change in control significantly adds to the firm's profitability and, perhaps more importantly, when the private benefits – also known as *amenity potential* – accruing to the family on account of the control is low (Burkart, Panunzi and Shleifer, 2003). Further, given that appropriation of a firm's cash flows is facilitated by group affiliation, when all the group firms are controlled by the same family (Bebchuk, Kraakman and Triantis, 2000; Almeida and Wolfenzon, 2006), family firms have a strong incentive to establish a group network to which all firms under their control are affiliated, which is consistent with the aforementioned correlation between family control and affiliation with business groups.

The literature has identified a number of ways in which families retain control over firms.

- One of the most effective ways to control a firm without contributing the majority of its capital is to issue dual class shares whereby the shares sold to outside investors are bundled with significantly reduced voting rights (DeAngelo and DeAngelo, 1985). Holmen and Hogfeldt (2005) cite the case of Ericsson in which the Wallenberg family controls 40 percent of the voting rights even though they contribute to 1 percent of the firm's capital. However, while issuing dual class shares is easy and is popular in some countries like South Africa and Sweden, it is not the most common mechanism used by families to retain control (La Porta, Lopez-de-Silanes and Shleifer, 1999).

- The second, and often discussed, way of retaining control of firm involves the use of pyramids. For example, if a family owns 51 percent of the shares of Company A, and Company A owns 51 percent of the shares of Company B, then the family effectively controls Company B even though its "owns" about 25 percent of this company. In

general, for any pyramid structure involving $n \geq 2$ firms, where a family has control of Firm 1 by way of ownership of s_1 proportion of its equity, Firm 1 has control of Firm 2 by way of ownership of s_2 proportion of Firm 2's equity etc., where all $0 < s_i < 1$, the family controls the nth firm by owing $\prod s_i$ proportion of its equity that could be arbitrarily small. Pyramids are widely used for retention of control, not only in East Asia but also in Europe (La Porta, Lopez-de-Silanes and Shleifer, 2000; Claessens, Djankov and Lang, 2000; Holmen and Hogfeldt, 2005). However, they are not common in countries like the United States and United Kingdom where regulations that require owners of some critical threshold of shares to mandatorily bid for the other shares of the company (Franks, Meyer and Rossi, 2005).

- Finally, families can use cross-holdings to reinforce their control over groups of companies. For example, if Company C and Company D own h percent of each others shares, and if a family directly owns s percent of the shares of each of these companies, then the family will have effective control over both these companies so long as $(s + h)$ exceeds 50 percent (Bebchuk, Kraakman and Triantis, 2000). Cross-holdings are commonly used by Asian business families, presumably because they reduce the transparency of the ownership structure of the companies (Weidenbaum, 1996).

It is easy to see that, for any given firms, all these three methods of retention of control leads to a divergence between the control rights and the cash flow rights of the families (for details, see Bebchuk, Kraakman and Triantis, 2000). Claessens et al. (1998) suggest a way to measure this divergence, a methodology that has now become stylized. Suppose that a family controls x percent of Firm A's shares while Firm A, in turn, controls y percent of Firm B's shares. They argue that the family controls p percent of Firm B's shares when $p = \min(x, y)$, and q percent of Firm B's cash flows, when $q = x \times y$. For example, in Thailand, at the time of their analysis, the Leophairatanas group controlled 16 percent of National Petrochemical which, in turn, controlled 44 percent of Asian Dragon Oil Refinery.

Claessens et al. (1998) proposed that therefore the Leophairatanas group controlled 16 percent of Asian Dragon Oil Refinery but only about 6 percent of the firm's cash flows.

How does family ownership (or control) of firms affect their performance? In principle, at least, the amelioration of Type 1 agency problems in these firms, with the controlling family caring more about long term value than professional management and dispersed shareholders, might dominate, and there is evidence to suggest that in many contexts this is indeed the case. In a much cited paper, Anderson and Deeb (2003) estimate the following regression model:

$$\textit{Firm performance} = \beta_0 + \beta_1(\textit{Family firm}) + \Phi'X + \Psi'I + \Theta'Y + u \qquad (1)$$

when firm performance is measured using returns on assets and Tobin's q; X is a set of control variables; I is a vector of industry dummies; Y is a vector of year (or time) dummies; and u is the *iid* error term. They find that family firms outperform non-family firms, especially when they have family members as CEOs. Similarly, Maury (2006) found that, in a sample of 1672 West European non-financial firms, the valuation and profitability of family firms were, on average, 7 percent and 16 percent higher than their non-family counterparts. Using data on 275 German listed companies, Andres (2008) concludes that family controlled firms are more profitable than both widely held firms and firms with other types of blockholders. These results, however, come with caveats. Performance of family firms is usually better than their non-family counterparts only if the founding family member is still in control (Andres, 2008), perhaps as a consequence of a significant increase in Type 2 agency conflict (especially relative to managerial skills) in family firms controlled by the descendents of the founding family member (Villalonga and Amit, 2006). Also, valuation gains disappear in environments where protection of minority shareholders is weak.

Note, however, that the loss of valuation gains is possibly less associated with ownership concentration in the hands of the families itself than with mechanisms that entrench family control by wedging a gap between control and cash flow rights. Indeed, the

impact of ownership concentration on firm performance is ambiguous. In an oft cited study, Morck, Shleifer and Vishny (1988) estimate the following regression model:

$$Q = \alpha_0 + \alpha_1 BOARD0to5 + \alpha_2 BOARD5to25 + \alpha_3 BOARDgt25 + \Gamma'Z + e \qquad (2)$$

when Q = Tobin's q of a firm – the ratio of its market value to the replacement cost of its assets; *BOARD0to5* equals actual ownership of shares by board members if it is less than 5 percent of total, and 0.05 if this ownership exceeds 5 percent; *BOARD5to25* equals zero if actual ownership of shares by board members is less than 5 percent of total, the actual ownership of shares less 0.05 if this ownership is between 5 percent and 25 percent, and 0.25 if ownership exceeds 25 percent; *BOARDgt25* equals zero if actual ownership of shares by board members is less than 25 percent, and the actual ownership of shares less 0.25 if ownership exceeds 25 percent; Z is a vector of control variables; and e is the *iid* error term. They find that $\alpha_1 > 0$, $\alpha_2 < 0$ and $\alpha_3 > 0$ (albeit weakly). Contrary to popular perception, they were reluctant to view this as evidence suggesting that concentration of ownership in the hands of insiders like family members initially enhances a firm's value but this value declines once the family (or insiders, in general) become entrenched. More recent research suggests that ownership concentration that aligns the long-term interests of the owners and the firms is performance enhancing, perhaps increasing and concave (Thomsen and Pedersen, 2000), even though the impact may not be unambiguously positive in contexts where corporate governance institutions are weak (Filatotchev, Lien and Piesse, 2005).

However, a corporate governance problem unambiguously emerges when control co-exists with divergence between the control rights and cash flow rights of the family. Lemmon and Lims (2003) use post-1997 data from eight East Asian crisis to demonstrate that the market valuation is 10-20 percent lower for firms in which managers have high level of control rights and where there is significant divergence between their control and cash flow rights. Similarly, King and Santor (2008) find that Canadian family firms that issue dual class shares have 17 percent lower market valuations than their non-family counterparts, despite having similar profitability and leverage. Gompers, Ishii and Metrick (2004) find that in the

United States the value of an average firm is increasing and concave in the cash flow rights of the entrenched managers and this value is decreasing and convex in their control rights. They conclude that control rights sans cash flow rights results in underinvestment, thereby concurring with Bebchuk, Kraakman and Triantis (2000) who demonstrate that in such cases investment decisions can be inefficient. An additional source of problem for firms with divergence between cash flow and control rights is the enhanced likelihood of expropriation, facilitated by decisions that are not performance enhancing for these firms. We shall discuss this issue in more detail in the next section.

As in the case of family firms, there is evidence to suggest that affiliation with business groups might add a to a firm's performance and market value, especially in contexts where markets for capital and other factors of production are imperfect (Khanna, 2000a). Keister (1998) found that group affiliation improved productivity and financial performance among Chinese firms in the eighties. Perotti and Gelfer (2001) conclude that Russian industrial groups allocated capital more efficiently among member firms than external capital markets, resulting in high Tobin's q than comparable unaffiliated firms. These results are consistent with those of the multi-country studies of Khanna and Rivkin (1999). A study of Indian business groups by Khanna and Palepu (1999) indicates that the benefits of group affiliation might be higher if the group is well-diversified, with the benefits kicking in only after some threshold level of diversification has been reached. This contrasts sharply with early evidence from the United States which find that membership of diversified groups destroys firm value (Lang and Stulz, 1994; Berger and Ofek, 1995). However, the view about the detrimental impact of diversification on firm value has now been brought into question in the United States context as well (Graham, Lemmon and Wolf, 2002). As in the case of family firms, the results about the positive impact of group affiliation on performance too come with a caveat. The cushion that group affiliation provides against credit rationing and investor action, increases moral hazard, with adverse implication for firm performance. Chacar and Vissa (2005) find that Indian firms with group affiliation have greater persistence of poor performance than those without group affiliation.

In sum, the literature on family control of firms has examined a number of hypotheses, the most important of which are as follows:

H1. Family firms are more likely to exist in environments where institutions, including those that protect the interests of minority shareholders, are weak, and where markets for key resources like credit are (at least partly) missing.

H1a. Family firms would have a high incidence of business group affiliation.

H2. Divergence between control rights and cash flow rights are much more likely to be observed in family-controlled firms than in their non-family counterparts.

H3. Family firms in which the founding family members play key management roles will outperform non-family firms, but the latter, in turn, would outperform legacy family firms where control is an outcome of succession.

H4a. Firms affiliated with business groups would outperform non-group affiliated firms in general, but group affiliation may foster moral hazard that would make it difficult for the former to rapidly adjust to difficult economic circumstances.

The current consensus is that family firms often come into existence as a consequence of market imperfections and high costs of contract enforcement, especially in emerging markets. Market imperfections and economies of scope involving intangible resources also explain why most family firms are part of wider business networks or business groups. The empirical evidence about the impact of family control or affiliation to business groups on performance is mixed; even though control in the hands of the founding members is likely to be more beneficial to a company than control in the hands of their successors. Evidence about the impact of group-affiliation on firm performance is less ambiguous; group-affiliation improves performance even though it might extend efficiency-reducing soft budget constraints to weak firms in the group. However, perhaps the most important conclusion that we can draw on the basis of the discussion in this section of the paper is that once a family firm comes into existence, the family derives a number of pecuniary and non-pecuniary benefits from the firm such that it is in their interest to retain control, and that retention of

control often involves a divergence between cash flow rights and control rights of the companies. We discuss the implications of this phenomenon in the next section.

3. Tunnelling

To recapitulate, family firms are known to use three different methods to retain control over companies – issue of dual class shares, pyramids, and cross-holdings – each of which leads to a divergence between the cash flow rights and the control rights of these families. For example, the Wallenberg family has rights over only 1 percent of the cash flows of Ericsson, but has 40 percent of the voting rights. This divergence reduces the incentive of a family to distribute the company's free cash flows to the shareholders, given that it will receive a small share of this cash flow. Instead, the family has a strong incentive to use the free cash flows in ways that maximise its own private benefits. Indeed, in the empirical literature on ownership, family control is used as a proxy for existence of private benefits (Franks and Meyer, 2001). Ehrhardt and Nowak (2003) cite the case of Hohner AG, a German firm owned by the Hohner family, which spent DM 11.6 million on social and philanthropic donations between 1949 and 1961. By contrast, the shareholders received DM 7.2 million in dividend payments. The value of such private benefits can be high, as much as half (South Korea) or even two-thirds (Brazil) of a firm's market value (Nenova, 2003; Dyck and Zingales, 2004).

A more common occurrence, perhaps, is tunnelling, whereby the controlling entity – a family, in many cases – uses a variety of means to transfer a significant proportion of the free cash flows from a company in which they have small cash flow rights and yet large voting rights, into a company in which they have large cash flow rights and control (Johnson et al., 2000). It is now known, for example, that the Tanzi family that controlled the Paramalat group tunnelled out at least USD 3 billion from the group companies into other companies that were directly owned by the family (Enriques and Volpin, 2007). This amount accounted for a sixth of the group's use of financial resources between 1990 and 2003, and 30 percent of the group's debt. The transfer of resources was made largely by way of overpayment for acquisition of assets, and the family used others means like hiding losses and understanding

debt on their financial statements to cover up the fraud. Evidence of tunnelling by family and other large blockholders has been found in a number of contexts: Bulgaria (Atanasov, 2005); China (Gao and Kling, 2007); Hong Kong (Cheung, Rao and Stouraitis, 2006); India (Bertrand, Mehta and Mullainathan, 2002); Japan (Weinstein and Yafeh, 1998); Russia and the United States (Atanasov et al., 2006); South Korea (Bae, Kang and Kim, 2002; Baek, Kang and Lee, 2006); and Sweden (Bergstrom and Rydqvist, 1990). There are some studies that argue that there is no clear evidence of tunnelling among family firms, even when they are affiliated to groups like the *chaebols* (e.g., Chang and Shin, 2007), but the dominant view, by far, is that tunnelling, and the associated expropriation of non-family shareholders, is fairly widespread.

It is now understood that tunnelling can take the form of expropriation of cash flows, or assets, or equity, or a combination of two or more of these firm attributes (Atanasov, Black and Ciccotello, 2008). Examples of cash flow tunnelling includes sale of a firm's output at below-market prices to another firm in which the family (or blockholder) has significant or complete cash flow rights, or over-payment for inputs purchased from such firms. Cash flow tunnelling may also result in excessive salaries or perquisites for family members (or insiders). Expropriation of cash has implications for the earnings statement, but does not necessarily affect a firm's long-term productivity. Asset tunnelling typically involves the transfer of a firm's assets to companies (usually) fully owned by the families (or blockholders) and it can significantly affect a firm's long-term ability to generate cash flows. Equity tunnelling involves actions that benefit the families (or blockholders) at the expense of a reduction in the value of the shares owned by the other investors; e.g., sale of new shares to the families at a below-market price, delisting and taking a firm private, and the issue of loans to the families that would not have to be repaid if the associated business venture were unsuccessful. All these forms of tunnelling have been witnessed in a number of contexts, but perhaps nowhere more frequently than in the transition economies of Central and Eastern Europe, especially in the former Soviet republics, in the aftermath of the privatisation of their

companies (see Black, Kraakman and Tarassova, 2000; Atanassov, 2005; Atanasov, Black and Ciccotello, 2008).

Atanasov, Black and Ciccotello (2008) neatly summarize the impact of tunnelling on share value. They assume that tunnelling is stealing such that, unlike in the case of (say) transfer pricing, there is zero cash flow accruing to the firm from which cash flow or assets are being tunnelled. In the absence of tunnelling, the value of each share is given by

$$V_{NT} = \frac{ROA \times A}{K} \tag{3}$$

when ROA is the return on assets, A is the stock of assets, and K is the cost of capital. If now, a proportion δ of the cash flow is tunnelled away, the value of each share would be

$$V_{CT} = \frac{(1-\delta) \times ROA \times A}{K} \tag{4}$$

If, however, π proportion of the assets itself is tunnelled away, and if this act reduces the returns to the assets by λ percent, then the value of each share would be

$$V_{AT} = \frac{(1-\pi) \times (1-\lambda) \times ROA \times A}{K} \tag{5}$$

Since the actual act of tunnelling is difficult to witness or identify, evidence about existence of tunnelling is necessarily indirect. Bertrand, Mullainathan and Mehta (2002), for example, demonstrate that returns to assets of group-affiliated business firms under-responds to industry-wide shocks. They interpret this result as the manifestation of tunnelling of profits from more profitable firms within business groups to less profitable ones, often using miscellaneous and non-recurring gains and losses. By contrast, Baek, Kang and Lee (2006) draw conclusions about tunnelling in South Korean *chaebols* from investor reaction. For example, if a firm issues equity, the announcement returns to the issuer would be negative if the newly issued equity is sold to another firm within the same business group – an act that is consistent with tunnelling – or if they are sold to the controlling shareholders of the issuing firm at a (perceived) discount. This approach is consistent with the research of Bae, Kang and

Kim (2002) who find that share price of South Korean firms fall if they are required to bail out or acquire a failing firm in the same business group.

It has been argued that investors anticipate the likelihood of one or more of these forms of tunnelling in firms that have significant divergence between voting and cash flow rights and those that are closely affiliated to groups (Faccio, Lang and Young, 2000). Recall, for example, the caveat regarding family control and firm performance mentioned earlier in this paper, namely, that while family control may enhance a firm's profitability, it adversely impacts the firm's valuation Claessens et al. (2002) found that, in East Asia, divergence between cash flow rights and voting rights of families have a negative impact on the Tobin's *q* of the firms. They estimated that a 10 percentage point divergence between cash flow and voting rights triggered a 6 percentage points discount in the market valuation of a firm. In the same vein, Khanna and Palepu (2000b) found that foreign institutional investors were more likely to invest in unaffiliated Indian companies than in firms with group-affiliation, which facilitates tunnelling. Gopalan, Nanda and Seru (2007) found that Indian investors and creditors are aware of the propensity among group-affiliated firms to transfer financial resources to other group companies that are inefficient and hence incapable of raising capital on their own, usually in the form of inter-corporate loans. As a consequence, bankruptcy of any of the group companies results in a significant reduction in access to investment and credit for all remaining firms in the group. However, other studies have failed to discover *a priori* discount of a firm's value in firms that have the potential to expropriate shareholders by way of one or more form of tunnelling, and have therefore concluded that investors are myopic and systematically underestimate the risk of tunnelling and expropriation (e.g., Cheung, Rau and Stouritis, 2006). Villalonga (2007) argues that the reaction of the market to tunnelling potential depends on the mechanism that is used by the dominant family (or blockholder) to enhance control.

Unsurprisingly, the corporate governance literature, one of whose focus is on investor protection, views distribution of all available free cash flows to investors in the form of dividends. It is argued that this would remove the ability of managers or blockholders with

disproportionate control over a company's resources to use discretion in the allocation of this cash flow, thereby eliminating (or minimising) the extent of private benefits. Indeed, in the Anglo-Saxon framework, dividends are viewed as a signal that agency conflicts within a firm have been ameliorated (Jensen, 1986; Faccio, Lang and Young, 2000). However, payout of significant dividends may not embody a panacea in so far as tunnelling is concerned. There is evidence to suggest that Chinese companies with concentrated ownership use dividends to attract new investors before issuing new shares, and the capital raised thereof might then be used in ways that are consistent with the private benefits of the controlling shareholders (Chen, Jian and Xu, 2008). Note that, in any event, while dividend payouts can reduce or eliminate the extent of cash tunnelling, they cannot reduce asset or equity tunnelling to a significant extent. The solution to this form of failure of corporate governance might, therefore, lie in direct oversight involving independent and knowledgeable directors, high quality auditors, and presence of blockholders like institutional investors who have the incentive and the ability to monitor the controlling family (Gao and Kling, 2007).

In sum, the most important hypotheses examined in the literature on tunnelling are as follows:

H5.   Tunnelling is more likely to be prevalent in firms that are affiliated to business groups, even more so when there is significant divergence in the control and cash flow rights of the controlling shareholder.

H6.   Investors punish perceived acts of tunnelling by driving down share prices of the relevant firms, and, in extreme circumstances, by not investing in these firms.

H7.   Reaction of investors would be greater for perceived acts of asset tunnelling than for perceived acts of cash tunnelling.

It is easy to see that a corollary of H6, a hypothesis that has thus far not been examined in detail, is that if tunnelling is wide spread in a certain context, the economy in question is much more likely to have a bank-based financial system than an equity-based system.

Overall, there is significant evidence to suggest that families – more generally, main blockholders in companies in which there is a significant divergence between their voting

rights and cash flow rights – can generate significant private benefits by expropriating the other shareholders. Such expropriation is more likely in contexts like the Central and East European countries in transition, where investor protection is weak. Some methods of tunnelling or expropriation affects only the cash flow accruing to the non-family shareholders while others affect the long-term potential of the firm to generate cash flows. There is mixed evidence about the extent to which investors anticipate tunnelling and expropriation, and penalise the families by way of lower market valuation of their firms. Finally, there is evidence to suggest that payout of dividends might not be the panacea to the problem of tunnelling. In the next section, we discuss the role of earnings management in the context of tunnelling.

4. Earnings Management

The accounting literature on earnings management sheds light on how earnings management is undertaken, using appropriate loopholes in accounting standards. The loopholes exist because, given that financial reports convey managers' information on the firms' performance (Financial Accounting Concepts Statement, No 5, 1984), accounting standards must permit managers to exercise judgement in financial reporting. This, in turn, is on account of the fact that we do not have an accounting system that is entirely rules based, offering no room for judgement; a rigid accounting system needs to provide rules for all circumstances, a near impossibility. In addition, new situations such as securitizations arise regularly, requiring new accounting rules to be devised, and the regulators might be able to respond only with a time lag. Therefore, generally accepted accounting principles (GAAP) require that judgement be exercised in preparing financial statements. Managers can use their firm specific knowledge to select reporting methods and disclosures that increase the value of accounting as a form of communication. However, given that auditing is imperfect, managements' use of judgement also creates opportunities for "earnings management", in which managers choose reporting methods and estimates that do accurately reflect their firms' underlying economics.

There are three alternative definitions of earnings management in the accounting literature. Watts and Zimmerman (1990) describe earnings management as occurring when managers exercise their discretion over accounting numbers with or without restrictions. Such discretion can be either firm value maximizing or opportunistic. Schipper (1999) defines earnings management as "implementation that impairs an element of decision usefulness or implementation that is inconsistent with the intent of the standard". Healy and Wahlen (1999) define earnings management as situations when managers alter financial reports to either mislead shareholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers. Executives face a hierarchy of choices when they manage earnings (Degeorge, Patel and Zeckhauser, 1999): report positive profit, report profit at least equal to profit from four quarters ago, and meet analysts' expectations.

In order to examine whether earnings have been managed, researchers have to measure the effects of managers' use of accounting discretion in unexpected accruals, i.e., estimates of unexpected accruals are deemed a proxy for the impact of managers' use of accounting discretion. To estimate unexpected accruals, most studies use the Jones (1991) model, where total accruals (TA) are defined as the change in non-cash current assets minus the change in current liabilities excluding the current portion of long term debt, minus depreciation and amortization, scaled by lagged total assets. The Jones model is estimated cross-sectionally each year using the following ordinary least squares regression model:

$$TA_{it} = \beta_1 \left(1/Assets_{it-1} \right) + \beta_2 \Delta Sales_{it} + \beta_3 PPE_{it} + \varepsilon_{it} \tag{6}$$

Where $\Delta Sales_{it}$ represents the change in sales scaled by total assets, $Assets_{it-1,}$ and PPE_{it} is net property, plant and equipment scaled by $Assets_{it-1.}$ Use of total assets as a deflator is intended to reduce the impact of heteroskedasticity on ε_{it}. The residuals of equation (6), ε_{it} are the Jones model discretionary accruals.

The fundamental problem with the Jones model is that it treats revenues as entirely non-discretionary. However, if earnings are managed by shifting revenues from future time

periods, then the change in revenue would be endogenous to the model. In order to control for the endogeneity bias, Dechow et al. (1995) propose a modification to the Jones model in which the change in accounts receivable (ΔAR_{it}) is subtracted from $\Delta Sales_{it}$ prior to estimating equation (6); see, among others, Guidry et al (1999) as an example. They assume that sales are not managed in the estimation period, but that the entire change in accounts receivable in the event year represents earnings management. Thus, Dechow et al. (1995) use the parameters from the Jones model estimated in the pre-event period for each firm in their sample, and apply those to a modified sales change variable define as $\left(\Delta Sales_{it} - \Delta AR_{it} \right)$ to compute discretionary accruals in the event period. Therefore, the modified Jones model is estimated in a time-series framework. The major drawback of this approach is that it is likely to create a large estimated discretionary accrual when a firm is experiencing excessive growth in the test period compared to the estimation period. Kothari. et al (2005) point out that this problem can be solved by not having a pre-event period, where it is assumed that changes in accounts receivable are unmanaged. They propose that the modified Jones model can be estimated as if changes in accounts receivable arise from earnings management. That is, the modified Jones model can be estimated cross-sectionally using sales changes net of the change in accounts receivables (i.e., $\Delta Sales_{it} - \Delta AR_{it}$ is used).

Much of the discussion about earnings management is in the context of Type 1 agency problem. It is now stylised that executive compensation is a major motivation for earnings management. Managerial compensation typically consists of a basic salary and a bonus, and the latter is typically tied to accounting performance measures such as earnings, return on assets and return on equities. Therefore, managers can influence their compensation by managing either accruals or real transactions as reported by Dye and Verrecchia (1995) and Evans and Sridhar (1996). There are other incentives for managers to exercise discretion in financial reporting as well; Watts and Zimmerman (1986) argue that higher corporate earnings also result in higher share value which increases job security and wealth if managers are shareholders. Healy (1985) argues that managers use current discretionary accruals to

maximize both this time period's bonus and the expected value of next period's bonus. When earnings are above or below last years earnings, managers shift income to future time periods to maximize multi-period compensation. Guidry et al. (1999) find support for the Healy (1985) hypothesis using internal data from different business units within a single company. Gaver and Gaver (1998) reaffirm the findings of Healy (1985) for nonrecurring items. However, Strong and Meyer (1987) and Elliot and Shaw (1988) contradict the findings of Healy (1985), by stating that when earnings are below expectations for a period, some managers might write-off as many costs as possible in that period with the intention of claiming they are 'clearing the desks' to facilitate improved future performance. If this is the case the incentive to manage earnings decreases dramatically. Jung and Kwon (2002) find that the informativeness of earnings reports increase with the concentration of shares in the hands of the controlling owners, suggesting that reduction of Type 1 agency conflict lies at the heart of the earnings management phenomenon.

However, there is a growing literature on the relationship between Type 2 agency problem and earnings management, with a view that earnings management is more prevalent in firms with significant Type 2 agency conflict (Fan and Wong, 2002), and in contexts where quality of investor protection is low (Leuz, Nanda and Wysocki, 2003). Chen, Jian and Xu (2008), for example, argue that some Chinese companies find it in their interest to pay dividends, irrespective of their profitability, because it makes these firms attractive to outside investors, thereby facilitating tunnelling of the proceeds from seasoned offerings of shares. This view is consistent with that of Liu and Lu (2007) who argue that Type 2 agency conflict is the main reason behind earnings management in Chinese companies. Aharony, Wang and Yuan (2005) demonstrate that the vehicle used for earnings management is transactions with related firms. In an ideal world with rational investors, such strategies should not offer sustained opportunities for expropriation. However, Cheung, Rau and Stouraitis (2006) find that, in Hong Kong, the outside investors (i.e., the "market") do not impose an *a priori* penalty on the firms, suggesting that investors might be myopic.

Such behaviour on the part of the family or other blockholders is entirely consistent with the evidence highlighted in the wider literature. Healy and Palepu (2003) demonstrate how, "[d]espite this elaborate corporate governance network, Enron was able to attract large sums of capital to fund a questionable business model, conceal its true performance through a series of accounting and financing maneuvers, and hype its stock to unsustainable levels" [pp. 4]. Similarly, Gordon and Henry (2005) find evidence to suggest in the United States absolute adjusted abnormal accruals, a proxy for earnings management, is positively correlated with certain related party transactions. Several other studies seek evidence on whether earnings management influences share price. Perry and Williams (1994) consider earnings manipulation in the year preceding the public announcement of a management buyout and find evidence, that management manipulates discretionary accruals to understate earnings, in the hope of decreasing the share price. Kasznik (1999) finds that managers who issue earnings forecasts manage reported earnings towards their forecasts. He reports that firms with managers that overestimated earnings have significant levels of positive discretionary accruals. Tech et al. (1998) find that initial public offering (IPO) firms are more likely to have higher earnings in the (IPO) year relative to a matched sample of non IPO firms. In addition, studies of bank loan loss provisions (see, among others, Liu and Ryan, 1995; Liu et al., 1997) find compelling evidence of a positive association between share prices and earnings management amongst banks. Studies of property-causality insurance claim loss reserves, including Petroni (1992) and Penalva (1998) find evidence that earnings management among insurers causes a hike in the share price.

Evidently, evidence of earnings management can be found both in emerging market firms that are controlled by large shareholders, and in widely held firms in the Anglo-Saxon world. The difference lies in the motivation for earnings management, namely, tunnelling or investor expropriation in the former and executive compensation in the latter. There is evidence to suggest, however, that in firms experiencing Type 2 agency problems earnings management might actually be reduced when the controlling blockholder's share of the equity crosses some threshold, i.e, when there is significant convergence between cash flow rights

and voting rights. Ding, Zhang and Zhang (2007) "when the ownership concentration [in their sample of Chinese firms] reaches a high level [i.e., in excess of 55-60 percent], large shareholders become the true owners of the firm, and are thus more likely to seek to preserve its future growth potential by minimising accounting earnings" [pp. 235]. This is consistent with the conclusion drawn by Ali, Chen and Radhakrishnan (2007), namely, that family firms exhibit less discretionary accruals and that in these firms earnings components better predict cash flows. They also find that family firms are more likely to warn about likely negative shocks to the companies than their non-family counterparts. Wang (2006) and Hutton (2007) too conclude that the quality of disclosure in family firms is quite good.

In sum, there seems to be some consensus in the earnings management literature about the appropriate way to empirically model this phenomenon, namely, the modified Jones model, perhaps with the modification suggested by Kothari et al. (2005). It should be noted, however, that while the use of both cross-sectional and panel data allow us to glean broad insights into the associated agency problems, they are fraught with problems. Earnings management occurs at the end of the financial year, suggesting that the manipulation of accruals takes place simultaneously across firms. Firms therefore are exposed to market shocks (risks) which generate volatility clustering across total accruals. Volatility clustering may generate significant contemporaneous correlations across these companies and dramatically reduces the efficiency of the panel estimates.

Nevertheless, the literature on earnings management has rich implications for agency problems within firms, and the main hypotheses are as follows:

H8.   In Anglo-Saxon firms with Type 1 agency conflicts, earnings management is largely on account of executive bonus, and current discretionary accruals is the main vehicle for earnings management in these companies.

H8a.   In firms with Type 1 agency conflicts, earnings management is likely to be used to meet (or exceed) earnings targets/forecasts if true earnings are marginally short of these targets. If actual earnings fall far short of targets/forecasts, however, earnings

management is likely to be used to "clear the desk" by transferring future costs to that year, and by transferring earnings to future years.

H9. In family controlled firms that are marked by Type 2 agency conflicts, earnings management is largely aimed at attracting capital from outside investors, and in these firms the main vehicle for earnings management is related party transactions.

H9a. In a family controlled firm, earnings management is more likely in a period leading up to an event such as an IPO.

H9b. As a family's ownership of a company's shares increases such that there is a convergence in its cash flow rights and control rights, the extent of earnings management in the firm decreases.

The discussion highlights one of the shortcomings of the literature on earnings management, as it relates to family firms and the specific type of agency problem that they experience. Much of the empirical literature on earnings management in emerging markets firms with large blockholders is in the context of China, which is insightful but not necessarily generalisable. Yet, emerging markets, with weak institutions for oversight and insider protection, provide a perfect backdrop for both existence of family firms with complex group affiliations and earnings management. Further research in this area, extending the empirical literature to other emerging markets, and perhaps also to non-Anglo-Saxon developed countries, is clearly warranted.

5. Concluding Comments

The literature on corporate governance is increasingly focusing on Type 2 agency problems, and a natural consequence of it is the attention being given to family controlled firms, many of which are part of larger business groups, especially in the emerging market economies. In this survey, we have examined the literature on a number of issues: why family firms are so commonly found in various business environments, why they may want to be part of larger business groups, the impact of family control and group affiliation on performance and valuation of firms, the mechanisms used by families to control firms, the consequences of

divergence between voting rights and cash flow rights – the phenomenon of tunnelling, the nature of earnings management that can facilitate tunnelling, and the (non-linear) relationship between family/blockholder control and the quality of financial disclosure. The growing body of empirical literature is rich in evidence about many of these issues, and provides the basis for an interesting narrative. However, much of the evidence comes from a handful of institutional contexts, namely, China, Germany, India, South East Asian countries, South Korea and the United States. The paucity of literature on Latin American counties, in particular, is both surprising and unfortunate. Explicit cross-country comparisons that can help to draw conclusions about the impact of specific corporate governance and financial market institutions on factors like expropriation and earnings management, as also about the relative importance of (and interaction between) agency conflicts and institutional factors are also conspicuous by their paucity. These provide significant avenues along which the literature on these very relevant and important corporate governance issues can be extended, and that should be the endeavour of future research.

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