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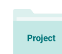

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Self-Dealing by Corporate Insiders: Legal Constraints and Loopholes

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Abstract: Insiders (managers and controlling shareholders) can extract (tunnel) wealth from firms using a variety of methods. This article examines the different ways in which U.S. law limits, or fails to limit, three types of self-dealing transactions – cash flow tunneling, asset tunneling, and equity tunneling. We examine how U.S. corporate, securities, bankruptcy, and tax law, accounting rules, and stock exchange rules impact each form of self-dealing, and identify weaknesses in these rules. We argue that a variety of complex asset and equity transactions, as well as equity-based executive compensation, can escape legal constraints. We propose changes in corporate, disclosure, and shareholder approval rules to address the principal gaps that emerge from our analysis.

Keywords: self-dealing, tunneling, dilution, freezeout, controlling shareholders

JEL Codes: K22, K40, G34

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1. Introduction[1]

Managers and controlling shareholders (insiders) can extract (tunnel) wealth from firms using a variety of self-dealing transactions. Self-dealing occurs across both developed[2] and developing[3] markets. It impacts the value of shares and the premiums paid for corporate control.[4] This Article studies how effectively U.S. rules limit self dealing by insiders of public companies. We consider three broad types of self-dealing transactions – cash flow tunneling, in which insider extract some of the firm's current cash flows; asset tunneling, in which insiders buy (sell) assets from (to) the firm at below (above) market prices; and equity tunneling, in which insiders acquire equity at below market price, either from the firm through an equity issuance or from other shareholders, often in a freezeout.

We also examine how a broad set of rules, including corporate, securities, accounting, tax, and creditor protection rules impact each type of tunneling. The prior law-and-finance literature discusses the potential anti-tunneling role of these sources, but not how they affect particular types of tunneling. Also, creditor protection rules have been seen as important only to protect creditors. However, as we develop below, they also have an important role in indirectly

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[1] For an expanded version of this article, including case studies illustrating the use of different types of tunneling, see Atanasov, Black and Ciccotello (2011).

[2] Papers studying the United States include Bates, Lemmon, and Linck (2006), Ciccotello, Grant and Grant (2004), and Gordon, Henry, and Palia (2004).

[3] Examples include Atanasov (2005), and Atanasov, Black, Ciccotello, and Gyoshev (2010) (Bulgaria), Baek, Kang, and Lee (2006) (Korea), Bertrand, Mehta, and Mullainathan (2002) (India), Cheung, Rao, and Stouraitis (2006) (Hong Kong), and Djankov, La Porta, Lopez-de-Silanes and Shleifer (2006) (multicountry). China is a favorite subject of study, see, e.g., Berkman, Cole, and Fu (2007), Deng, Gan and He (2007), Jiang, Lee, and Yue (2010), and Ming and Wong (2003).

[4] Examples include Barak and Lauterbach (2007) (Israel), Black (2001a) (Russia), Goetzmann, Spiegel and Ukhov (2003) (Russia) Nenova (2003) (multicountry), Dyck and Zingales (2004) (multicountry).

protecting minority shareholders. Though beyond the scope of our article, creditor contracts can also limit tunneling and thus protect minority shareholders.[5]

Prior research on the strengths of legal protections against self-dealing in the U.S. is usually limited to a single type of tunneling. For example, a large literature discusses freezeouts;[6] a separate literature discusses executive compensation.[7] Though outside our scope, the weak position of minority shareholders in *private* companies is well understood.[8] Gilson and Gordon discuss generally the problem of limiting the power of controlling shareholders, but focus primarily on freezeouts and sales of control, which are forms of equity tunneling.[9] Most studies, especially in the U.S., also consider only corporate and securities law.[10] The role of creditor protection laws in protecting minority shareholders against tunneling has not been discussed.

In contrast, this Article studies how a broad set of rules affects a broad range of self-dealing transactions. This breadth comes at a cost – we delve less into the details of the regulation of any one type of transaction. But this breadth lets us illustrate a major theme which has largely gone unrecognized – U.S. rules do not effectively limit the full range of self-dealing opportunities for insiders. It also lets us explore the role of bankruptcy and other creditor protection rules in protecting minority shareholders as well as creditors.

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[5] See, e.g., Harvey, Lins and Roper (2004); John and Litov (2009).

[6] See, for example, DeAngelo, DeAngelo and Rice (1984); Subramanian (2007); Bates, Lemmon and Linck (2006); Rock (1997).

[7] See, for example Bebchuk and Fried (2004), Crystal (1991), or Jensen, Murphy, and Wruck (2004).

[8] See, for example, O'Neil and Thompson (2004).

[9] Gilson and Gordon (2003).

[10] Exceptions include Black (2001), who discusses the legal and market institutions needed to control self-dealing, but focuses on emerging markets, and Desai, Dyck, and Zingales (2007), who study how tax enforcement can limit cash flow tunneling.

In this Article, we discuss the strengths and limits of U.S. rules impacting each major form of tunneling. For cash flow tunneling, for example, entire fairness review under corporate law has some bite. Corporate tax law limits pyramid structures and thus incentives and opportunities for cash-flow tunneling within business groups, but is less effective in limiting cross-border transfers through creative transfer pricing. Securities law and accounting rules ensure some disclosure of related party transactions, but the disclosure can often be generic and leave investors in the dark about transaction fairness. For asset tunneling, disclosure is often limited, and corporate law leaves substantial room for transactions at off-market prices. The principal protection against mispriced transactions is review by independent directors, but if the insiders can fool or co-opt them, shareholders can do little. Bankruptcy law provides some protection against asset tunneling for failing firms. Equity tunneling through freezeouts is relatively well-controlled, but creative insiders can often extract much of a company's value through complex recapitalizations, and can extract a surprising amount of value over time through equity-based executive compensation.

Writ broadly, the prevalent methods of tunneling involve insiders exploiting gaps in current rules. The rules block some brute-force schemes that might succeed in less developed markets, but can sometimes be evaded through more complex schemes. We propose changes in corporate, disclosure, and shareholder approval rules to address the principal gaps that emerge from our analysis.

In this Article, we study only public companies. We do not study special rules that apply to firms in particular industries, such as mutual funds. We also study only U.S. rules. We do not

consider tunneling by equity holders at the expense of debtholders, or vice-versa.[11] However, our taxonomy of tunneling is not limited to the U.S. Moreover, our analysis of how a broad set of rules, taken together, controls particular forms of tunneling is readily adaptable to other countries.

The Article proceeds as follows: Section 2 provides a summary of tunneling types. Section 3 examines how accounting rules and tax, corporate, and securities law impact various types of tunneling, and points out the loopholes. Section 4 then provides some recommendations to address the existing loopholes. Section 5 concludes.

2. Unbundling Self-Dealing

In the law and finance literature the term "self-dealing" is often interchangeable with "tunneling." Simon Johnson and coauthors (2000) define "tunneling" as the "transfer of resources out of a company to its controlling shareholder (who is typically also a top manager)."[12] This definition is appropriate for emerging markets, where most firms have a controlling shareholder. We use here a broader definition that includes transfers to managers who are not controllers. For transfers to managers, tunneling includes executive compensation that exceeds a market rate. We follow the taxonomy of tunneling developed in Atanasov, Black & Ciccotello (2008), and divide self dealing transactions into three basic types: cash flow tunneling, asset tunneling, and equity tunneling. We summarize these here, without pretending to capture all of the creative ways in which insiders can extract value from firms.

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[11] For discussion of the former, see Akerlof, Romer, Hall and Mankiw (1993). For a Russian example of the latter, see Lambert-Mogilansky, Sonin and Zhuravskaya (2003). We do address below the ability of a controlling equity holder to use a creditor position in the firm to engage in equity tunneling.

[12] Johnson, La Porta, Lopez-de-Silanes, and Shleifer (2000). This article offers a simpler tunneling taxonomy than the one developed here, labels both cash-flow and asset tunneling as "self-dealing transactions."

Cash flow tunneling removes a portion of current year's cash flow, but does not affect the remaining stock of long-term productive assets, and thus does not directly impair the firm's value to all investors, including the controller. Cash flow tunneling can repeat year after year, but the fraction of cash flow which is tunneled can change over time. Often, cash-flow-tunneling transactions are not directly with insiders, but instead with firms that the insiders control (or simply have a larger percentage economic ownership than in the subject firm).

Asset tunneling involves the transfer of major long-term (tangible or intangible) assets from (to) the firm for less (more) than market value. It includes overpriced purchases of assets or equity in affiliated firms and underpriced asset sales to affiliated firms. Asset tunneling differs from cash-flow tunneling because the transfer has a permanent effect on the firm's future cash-generating capacity. Transfers out of (into) the firm may also affect the profitability of the firm's other assets, if the transferred assets have positive (negative) synergy with the firm's other assets.

Equity tunneling increases the controller's share of the firm's value, at the expense of minority shareholders, but does not directly change the firm's productive assets or cash flows. Examples of equity tunneling are dilutive equity issuances, freeze-outs of minority shareholders, and insider trading.

If one describes a firm as a grove of apple trees, which grow better together than apart, cash flow tunneling can be seen as stealing some of this year's crop of apples, asset tunneling out of the firm involves stealing some of the trees (potentially making the remaining trees less valuable); and equity tunneling steals claims to ownership of the grove.

Asset and equity tunneling principally affect items on the balance sheet, and involve the transfer of the s*tock of firm value*. In contrast, cash flow tunneling principally affects the income

statement and statement of cash flows, and captures the *flow* of firm value.[13] Equity tunneling often does not affect the firm's financial statements at all. In terms of operational impact, asset tunneling directly affects the company's future operations and profitability, while equity and cash flow tunneling do not.

This section dissects self-dealing transactions into our three main types – cash flow, asset, and equity tunneling. We begin by summarizing which types of transactions and activities fall within each type, and then discuss transactions which do not cleanly fit our typology. Transactions between a firm and related parties can sometimes be intended to benefit the firm – sometimes called propping.[14] One firm investing in a troubled affiliate is a common example. The transaction both props the affiliate, and is a form of asset tunneling for the investing firm. We do not discuss here the argument that tunneling and propping transactions within business groups can sometimes reflect efficient risk-sharing in an inefficient capital market (Morck and Nakamura, 2007).

2.1. Cash Flow Tunneling

Cash flow tunneling can be defined as self-dealing transactions which divert what would otherwise be operating cash flow from the firm to insiders. The central stylized attributes of cash flow tunneling are: (1) it can potentially recur indefinitely, but may or may not recur in fact; (2) it leaves the firm's long-term productive assets unchanged; (3) it leaves ownership claims over the firm's assets unchanged; and (4) if limited in extent, it does not significantly affect the firm's long-term cash-generating ability.

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[13] The stock versus flow analogy is adapted from Gilson and Gordon (2003). They argue, using our terminology, that equity tunneling is more damaging to minority shareholders than cash flow tunneling because it extracts the present value of a stream of income, rather than just this year's flow.

[14] See Friedman, Johnson and Mitton (2003); Cheung, Rao, and Stouraitis (2006).

One major form of cash flow tunneling involves transfer pricing, where the firm either sells outputs to insiders for below-market prices, or purchases inputs from insiders at above-market prices. The inputs can be either goods or services.[15] A second major form is above-market current-year executive salaries, bonuses, or perquisites (we treat above-market equity-based compensation as equity tunneling). Cash flow tunneling also includes small-scale sales or purchases of replaceable assets at off-market prices.

Some transactions cannot be neatly classified as a single type of tunneling. For example, loans to insiders involve cash flow tunneling if, as is often the case, the loan is at a below-market interest rate. Loans that are large enough to significantly affect the firm's cash resources, where the firm may have difficulty finding other sources of cash in bad economic times, reflect, in part, asset tunneling. If loans to insiders will not be repaid in bad economic times, as is often the case, they have aspects of equity tunneling – the insider receives a valuable embedded put option or, equivalently, a larger share of firm value in bad times. Guarantees of loans to insiders by third parties can be analyzed similarly to direct loans to insiders.[16]

While cash flow tunneling does not directly affect the firm's expected future cash flows, it can have indirect effects, especially if it occurs on a large scale. If controllers remove enough cash from the firm, this can reduce the internal capital or borrowing capacity the firm needs to purchase productive assets, or raise the firm's cost of capital, thus impacting future profitability.

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[15] We are concerned here with transfer pricing that benefits insiders, not the also popular form which transfers profits from a high-corporate-tax jurisdiction such as the U.S. to a lower-tax jurisdiction.

[16] If an insider's control is strong enough, one can understand him as holding an option to borrow money in bad times and not repay it, even if the company currently has lent him no money. Thus, Bernie Ebbers borrowed $341 million from WorldCom on the way down: Solomon, D., & Sandberg, J. , *Leading the News*, Wall Street Journal, Nov. 6, 2002. For a more recent example, in which insider borrowing in an economic downturn drove a Russian firm into bankruptcy, see Guy Chazan, *Russian Tycoon's Fall Spurs Money Hunt*, Wall Street Journal, Sept. 8, 2009.

2.2. Asset Tunneling

Asset tunneling involves self-dealing transactions which either (1) remove significant, productive assets from the firm for less than fair value, for the benefit of insiders (tunneling "out"); or (2) add overpriced assets to the firm (tunneling "in").

Asset tunneling can include both tangible and intangible assets, which can be either on or off the balance sheet. Tangible asset tunneling includes sales (purchases) of significant assets, often falling within the property, plant, and equipment (PPE) or investments lines on the balance sheet. One common form, especially outside the U.S., involves investing in an affiliate on terms the affiliate could not obtain from outside investors.[17] Intangible assets offer fertile ground for tunneling because they are often not directly recorded on a firm's balance sheet, so the tunneling leaves fewer traces. Valuation of intangible assets is often difficult, so it is hard for minority shareholders to prove off-market pricing. Examples include providing trade secrets or other intellectual property to related parties at a discount (buying them from related parties at a premium); and diverting business opportunities to related parties. Investing in a troubled affiliate (propping) is a common form of asset tunneling "in". Repurchases of shares from insiders for above market value is also a form of asset tunneling "in", because the insider gets more cash than their shares are worth.

We treat asset tunneling as separate from cash flow tunneling for several reasons. First, asset tunneling out diverts all future cash flows associated with an asset. In contrast, cash flow tunneling is an ongoing process, which can be modified in the future. For example, an executive might receive an excessive salary in one year, but not the next. Second, if there is synergy

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[17] See, e.g., Baek, Kang and Lee (2006).

between different aspects of a firm's business, diverting productive assets reduces the value of the firm's remaining assets and the firm's overall profitability. In contrast, cash flow and equity tunneling are closer to being purely redistributive – they do not directly affect a firm's future operating performance. Third, asset tunneling and cash flow tunneling affect different aspects of financial performance (as captured by standard financial metrics), and need to be addressed through different legal and accounting rules. One can think of asset tunneling as primarily impacting the balance sheet while cash flow tunneling primarily affects the income statement and statement of cash flows.

The classification of some self-dealing transactions will be unclear. Consider a lease of assets from a related party for more than fair value. If the lease term is short, relative to the life of the asset, the transaction looks like cash flow tunneling. If the lease term is long, relative to asset life, the transaction looks more like asset tunneling. Accounting rules struggle with the distinction between short-term "operating" leases and long-term "capital" leases; our taxonomy will do no better than they do. An assets-for-equity transaction can involve both asset and equity tunneling.

2.3. Equity Tunneling

The core characteristic of equity tunneling is that it increases the insiders' ownership claims over the firm's assets, at the expense of minority shareholders, without directly affecting the firm's operations. Equity tunneling can take a variety of forms, including: dilutive equity offerings (issuance of shares or securities convertible into shares, to insiders for below fair value); freezeouts (transactions in which insiders take the firm private) for less than fair market value; loans from the firm to insiders (which will not be repaid in bad states of the world, and hence act partly as put options); sale of a controlling stake (without an offer to buy minority

shares); and insider trading which transfers value from uninformed investors to insiders without directly affecting the firm's operations. A repurchase for more than fair value dilutes the value of the minority shares. Equity-based executive compensation that exceeds a market rate for services is a common form of equity tunneling. Within business groups, equity investments in or loans to affiliates can involve both tunneling from the investing firm and propping the investee firm.

3. Principal Laws and Rules that Affect Self-Dealing

There is broad consensus that better legal rules are associated with stronger financial markets, but much less on which rules matter, or how they matter.[18] Some rules directly control self-dealing transactions; some do so indirectly, some do so incidentally but still importantly. We discuss here the principal laws and rules that are likely to do the bulk of the work in controlling self-dealing ("anti-tunneling rules"), and how effective they are against different forms of tunneling. We build on the taxonomy of tunneling developed in Section 2, in order to link specific laws and institutions to specific forms of tunneling.

The tunneler's job is often to find a way through or around the web of anti-tunneling rules. Similar to tax planning, if there are several ways to a given goal, and law blocks only some of them, tunnelers can often follow the path less-regulated. Thus, we attend both to the paths that legal rules block, and those they leave open.

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[18] On the finance side of law and finance, see, e.g., La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997, 1998, 2002), La Porta, Lopez-de-Silanes and Shleifer (2006),and the now large related literature, including Beck, Demirguc-Kunt and Levine (2003, 2003a); Demirguc-Kunt and Maksimovic 1998); and Levine, (1998, 1999). On the law side, see; e.g., Armour, Black, Cheffins and Nolan (2009); Black (2001), Berkowitz, Pistor and Richard (2003), Roe (2006), Spamann, 2010).

We limit our analysis to U.S. laws, stock exchange rules, and accounting rules. A similar analysis can be applied to other countries, whose rules will have different strengths and weaknesses in controlling tunneling. We consider the following principal sources of law and related rules: corporate law, securities law, bankruptcy law, tax law, accounting rules, and stock exchange listing rules.

To assess which rules affect which types of tunneling, we need a taxonomy of rules that does not depend on the idiosyncratic decision to place a rule of type A in a statute of type B. For example, the boundary between corporate and securities law is indistinct – important parts of U.S. securities law address matters that are often thought of as involving internal corporate governance. We will use the following taxonomy:

Corporate governance rules: rules that principally regulate the relations among shareholders and between shareholders and managers, including rules that create shareholder rights (such as preemptive and appraisal rights), specify transaction approval requirements, specify internal structure (independent directors, audit committees, and so on), specify procedures for corporate decision making, or, occasionally, ban particular types of transactions. These rules are located primarily in state corporate law, but important parts are also located in securities law (for example, the Securities Exchange Act regulates insider trading, shareholder voting, and corporate takeover bids), the Sarbanes Oxley Act (which regulates audit committees and bars corporate loans to directors and executive officers) and in stock exchange rules (for example, rules on audit committees and independent directors, and rules requiring firms to have a shareholder vote for a large equity issuance or limiting the issues on which record holders to vote).

Disclosure rules (wherever located): rules that specify the content of the disclosure that public companies must make to shareholders and investors. These are located primarily in securities law and accounting rules, but also partially in corporate law, stock exchange rules (such as rules requiring disclosure of new corporate developments), and other places. We consider here federal securities law, but not state securities law. For accounting rules, we assume U.S. GAAP applies. For stock exchange rules, we consider New York Stock Exchange and NASDAQ listing rules.

Tax rules: Rules which affect taxes paid by corporations, and by investors on cash flows received from corporations. These rules can indirectly protect minority shareholders against cash flow tunneling, by providing an outside monitor with its own interest in keeping cash flows, and thus taxable profits, within the corporation. Tax rules can also reduce incentives to create pyramid or circular ownership structures, which provide opportunities for self-dealing. We consider here federal income tax law, but not state law.

Creditor protection rules: Rules that are principally intended to protect creditors against actions by shareholders and managers, but in practice can also protect minority shareholders. Conversely, weak bankruptcy laws can facilitate equity tunneling.[19] These rules are principally located in federal bankruptcy law and state insolvency and fraudulent conveyance law, but also include corporate law rules limiting distributions to shareholders.

3.1. Cash Flow Tunneling

Cash flow tunneling involves potentially recurring "related party transactions" (RPTs), between a firm and insiders or another firm that the insiders control, at off-market prices. The

[19] For a study of this possibility in Russia, see Lambert-Mogilansky, Sonin, and Zhuravskaya (2003)

firm buys inputs (goods or services) for an above-market price, or sells outputs for a below-market price. The principal controls on this behavior are (i) corporate governance rules which specify fiduciary duties of corporate officers and directors, specify approval requirements for RPTs, provide an opportunity for shareholder suits challenging particular transactions, and ban particular transactions; (ii) disclosure rules which require disclosure of these transactions, as well as disclosure of major shareholders, so that shareholders know who the insiders are; (iii) government interest in keeping profits within the firm, in order to collect corporate income taxes (Desai, Dyck, and Zingales, 2007); and (iv) creditor protection rules that limit cash distributions and asset transfers from insolvent companies.[20]

Corporate governance rules. Corporate law once narrowly restricted related party transactions (Marsh, 1966), but over the course of the 20th century, largely retreated to a process approach: RPTs are lawful if approved through a proper process. Usually, approval by noninterested directors suffices.[21] This creates risk to shareholders if the board is co-opted or asleep. Assuming the process meets corporate law requirements, a substantive challenge to fairness is difficult. Save for large, extraordinary transactions (which would involve asset or equity tunneling, rather than cash flow tunneling), such challenges are practically impossible. Challenges are rare, and successful ones, to our knowledge, nonexistent.

The Sarbanes-Oxley Act bans corporate loans to directors and executive officers, previously a common RPT.[22] But it does not limit loans to other insiders or affiliated firms.

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[20] We do not consider here the special rules that govern related party transactions involving investment companies (mutual funds), located in the Investment Company Act of 1940.

[21] See, e.g., Allen, Jacobs and Strine (2000).

[22] See Gordon, Henry and Palia (2004).

Disclosure rules. Disclosure rules require companies to disclose the existence of many cash-flow tunneling RPTs. The principal constraint is the federal proxy rules, which require disclosure of executive compensation, and of transactions between the company and its directors, officers, and affiliates with a low $120,000 threshold.[23] Accounting rules are of little help – they require disclosure only of "material" RPTs.[24] The principal SEC rule on financial statements, Regulation S-X, also contains a materiality exception.[25] Most cash-flow tunneling RPTs will be well under the materiality threshold.

In practice, executive compensation aside, disclosure of RPTs is often opaque, and gives no guidance to investors as to whether the RPT was in fact on arms-length terms. Enron is a poster child, with its impenetrable disclosures of transactions with special purpose vehicles.[26] A company that discloses extensive RPTs will likely pay a penalty in its share price, but the penalty may be only loosely related to the degree of self-dealing.

The importance of disclosure in limiting executive compensation is suggested by two examples involving stock options. One involves the option backdating scandals that became public in 2005-2006, in which hundreds of companies issued options at below-market prices, by looking backwards to a date when the price was low, and deeming the option granted at that date. Many option plans permit below-market grants. However, the need to disclose that a grant was below market and record compensation expense, which arose once the SEC required offers to

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[23] Regulation S-K, Item 404. Item 404 disclosure of RPTs is made annually in a company's proxy statement.

[24] Statement of Financial Accounting Standards 57 (1982), ¶ 2.

[25] Regulation S-X, Rule 4-02.

[26] See, e.g., Black (2006) (comparing Enron's disclosures to actual transactions).

promptly report of option grants under Securities Exchange Act § 16, stopped most such grants.[27] The second involves an accounting rule change in 2002 which required U.S. firms, beginning in 2005, to report compensation expense more generally for granting at-the-money options to executives. Option grants dropped at firms which were formerly above-norm option granters.[28]

Tax rules. The tax authorities will be interested in transactions that move income off-shore, where it may escape U.S. taxation. But in practice, firms retain substantial latitude. For example, the IRS has never succeeded in charging significant taxes on U.S. subsidiaries of foreign parent firms – the foreign parents seem to be able to arrange sufficient transfer pricing transactions to more or less zero out their U.S. taxable income. As long as the income remains on-shore, the tax authorities have limited interest in where it lands, given the similarity between corporate and individual income tax rates.

Tax rules do indirectly limit controller's incentives and opportunities to tunnel cash flow. To oversimplify, under U.S. tax law, intercorporate dividends and transactions are partially taxed unless a parent owns at least 80% of a subsidiary and thus is consolidated with the subsidiary for tax purposes. As Randall Morck notes, this imposes a substantial penalty on pyramidal and circular ownership structures.[29] These structures are common in other countries and provide both incentives and opportunities for the controller to tunnel profits up to the top level of the pyramid.[30]

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[27] Heron and Lie (2007).

[28] Feng and Tian (2009).

[29] See Morck (2004). We refer to these rules below as "anti-pyramid rules".

[30] See, e.g., Bebchuk, Kraakman and Triantis (2000).

Creditor protection rules. Creditor protection rules constrain cash flow tunneling when a firm is insolvent or soon will be. Both state fraudulent conveyance law and federal bankruptcy law permit courts to examine RPTs involving insolvent companies, and reverse transactions in which the company does not receive value "reasonably equivalent" to what it pays.[31] Bankruptcy law also allows the bankruptcy court to retrieve payments by the firm to creditors within three months of the filing (one year if the creditor is an insider).[32] Creditors are the principal beneficiaries of these rules, but minority shareholders will also benefit if the firm retains positive equity value (without the tunneling that would occur without these rules).

Still, on the whole, if the insiders of a solvent firm are so inclined, and can find cooperative outside directors, U.S. law neither strongly limits the power of insiders to tunnel cash flows, nor ensures full disclosure of the transactions that occur. To be sure, U.S. rules and norms tilt strongly toward board independence. Companies without a majority shareholder must have a majority of independent directors under NYSE rules,[33] and Delaware law gives greater deference to decisions by board with a majority of outside directors.[34] In practice, many large firms have a substantial majority of independent directors. Often, these directors will resist gross self-dealing. But independent directors have been notably lax on executive compensation and more than occasionally lax in other areas. Enron and WorldCom are examples where highly independent boards approved self-dealing. They are scarcely alone.

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[31] Uniform Fraudulent Transfer Act § 4(a)(2); 5(a); Federal Bankruptcy Act § 548 (one-year lookback period).

[32] Federal Bankruptcy Act § 547(b).

[33] New York Stock Exchange, Listed Company Manual § 303A.01 (general rule); 303A.00 (exception for controlled companies).

[34] See, e.g., Allen, Kraakman and Subramanian (2009), chapters 10, 11.

3.2. Asset Tunneling

Asset tunneling is different from cash flow tunneling in several ways. Asset tunneling involves the transfer of productive assets, as opposed to simply cash. Asset tunneling would also tend to involve larger transaction size and be more of a one-time event, as opposing to recurring. Asset tunneling can also go in two directions: tunneling "out" (sale of assets for below fair value) and tunneling "in" (purchase of assets for above fair value, loans to insiders, and investments in related firms).[35]

Corporate governance rules. Sale of all or substantially all of a firm's assets aside, the corporate law rules governing approval of RPTs do not depend on transaction size, and thus are the same for cash-flow and asset tunneling, and for asset tunneling in or out. The transaction can be approved by noninterested directors, regardless of size. If so approved, it is nearly immune from shareholder attack. The shareholders would have to persuade a court that the transaction was on terms so grossly unfair that the directors must not have satisfied the notoriously lax business judgment rule.[36]

Shareholder approval is never required for asset tunneling "in". It is required for asset tunneling "out" only if the transaction is so extraordinary that it involves sale of "all or

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[35] For loans to insiders or investments in related firms, one can see the asset acquired as the obligation of the insider to repay, or the securities issued by the related firm.

[36] The discussion below oversimplifies the rather complex corporate law rules governing such suits, and in particular, collapses the problem of bring a derivative suit in the face of demand requirements with the need to win such a suit on the merits, if it can be brought. For details, see, e.g., Allen, Kraakman, and Subramanian (2009), ch. 8 (duty of care and business judgment rule), chapter 10 (demand requirements for derivative suits).

substantially all assets."[37] Even then, the interested insider can vote in favor of the transaction, and minority shareholders have no appraisal rights.[38]

Disclosure rules. Turning to disclosure of asset tunneling, the proxy rules, discussed above for cash-flow tunneling, still apply. Additional disclosure is required only if the transaction is material – so much can also be hidden by staying below the materiality threshold.

Even for material RPTs, disclosure is often weak or absent. The principal accounting rule which requires disclosure of "material" RPTs, SFAS 57, contain a suitably broad definition of what parties are related. But there are exceptions for executive compensation and other "ordinary course of business" transactions." Moreover, even material RPTs need not be disclosed if they are within a group which is consolidated for accounting purposes (accounting consolidation generally kicks in at 50% ownership).[39] Under Regulation S-X, material RPTs that "affect the financial statements" should be disclosed, including the transaction amount. This implicitly contains the same exception for transactions within a consolidated group.[40]

When transactions are disclosed, details can be scant or opaque. There is no requirement that the accountants verify that the transaction was on arms-length terms, unless the insiders so claim as part of the RPT disclosure (in which case the accountants must test this claim).[41] Atanasov, Black, and Ciccotello (2011) analyze a case involving recurring asset sales by Coca-

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[37] The threshold for "substantially all" is unclear, but a recent Delaware case suggests that it is well more than a majority of assets by market value.

[38] Delaware General Corporation Law § 271; Hariton v. Arco Electronics, Inc., 182 A.2d 22 (Del. Ch. 1962), affirmed, 188 A.2d (Del. 1963). In contrast, the Model Business Corporation Act, § 13.02(a)(3), does provide appraisal rights in this situation.

[39] Statement of Financial Accounting Standards 57, ¶ 1 (definition of RPTs); ¶ 2 (exception for transactions which are eliminated in consolidated financial statements).

[40] Regulation S-X, Rule 4-08(k).

[41] Statement of Financial Accounting Standards 57 (1982), ¶ 3.

Cola to its majority owned subsidiary, Coca-Cola Enterprises ("Enterprises"), which totaled $15 billion over 1985-2001, largely to pay for intangible franchise rights. By 2001, these rights represented over two-thirds of the book value of Enterprises' assets. There was no disclosure of how the purchase price for the acquired assets was determined, and no outside market that would let shareholders value the franchise rights, and hence no way for shareholders to assess fairness.[42] Similarly, for material investments in affiliates, the fact of the investment will be stated, its amount will often be stated, but interest rates on loans or other measures from which investors could assess fairness will often be absent.

Tax rules. For cash flow tunneling, tax law had two potential impacts: tax authorities want to keep income within firms, and tax rules discourage pyramids. The "anti-pyramid rules" constrain asset tunneling as well. However, tax authorities will have limited interest in asset tunneling as such. For asset tunneling "out", the tax authorities normally won't care as long as the assets move from one taxable firm to another. They will care if assets move offshore, but much as for cash flow tunneling, have had limited success in policing transactions within a business group. Determining the fair value of a long-lived asset can be complex, especially for intangible assets. Some assets-for-equity transactions will be tax-free, as will all transactions within a tax-consolidated group (80% threshold).

Tax enforcement has even less effect on asset tunneling "in." These transactions will lead to higher depreciation and hence lower taxable income by the acquirer, but this will often be offset by higher capital gains taxes paid by the seller, so the net impact on tax revenue is not clear. We are unaware of IRS efforts to challenge transactions for being overpriced.

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[42] Also see Gordon, Henry and Palia (2004).

Creditor protection rules. The bankruptcy and fraudulent conveyance rules discussed above for cash-flow tunneling also apply to asset tunneling by insolvent or soon-to-be-insolvent firms. Larger transactions provide greater incentives for challenges by creditors or a bankruptcy trustee. A loan or other transfer to an insider will be treated as a preference and reversed if it occurs less than a year before a bankruptcy filing, but will be hard to challenge after that.[43]

3.3 Equity Tunneling

The effect of legal rules on equity tunneling depends on the type of transactions. We consider here, as non-exhaustive examples, dilutive equity offerings, freezeouts, sales of control, and insider trading.[44]

3.3.1 Equity Offerings

Corporate Governance Rules. Corporate governance rules provide protection against dilutive offerings, but only partial. Under corporate law, boards must approve equity offerings, including grants of options or restricted stock to executives. Under NYSE rules, shareholders must approve equity compensation plans, but have no say over individual grants if below the 1% threshold noted below.[45] Votes against option plans are uncommon, but the need to obtain shareholder approval for option plans likely constrains some firms.[46]

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[43] The one-year lookback period is at 11 U.S.C. § 547(b)(4)B).

[44] There are a myriad of other forms of equity tunneling. One example, for firms that do not go public with two classes of common stock, involves a midstream "dual-class recapitalization," in which a company offers to exchange low-voting shares for regular common shares on terms that non-controlling shareholders will find individually attractive, with the effect of increasing the insiders' voting control, although not their economic stake. In the U.S., stock exchange rules effectively bar dual-class recapitalizations.

[45] NYSE Listed Company Manual § 312.03(a).

[46] Proxy advisory firms typically establish guidelines on when they will recommend that shareholders approve a stock option plan. See, e.g., RiskMetrics Group, 2009 U.S. Proxy Voting Guidelines Summary (Dec. 2008), at http://www.riskmetrics.com/sites/default/files/RMG2009SummaryGuidelinesUnitedStates.pdf, page 32.

In the U.S., the Dodd-Frank financial reform act and related SEC rules require a shareholder "say on pay", to begin in 2011.[47] Shareholders will cast a nonbinding advisory vote, once every three years, on the overall compensation of all executive officers, and can decide, every six years, to require more frequent votes (every one or two years). Issues such as how often shareholders will cast no votes, against what levels or types of compensation, and with what responses from companies, are as yet unknown. Experience with "vote no" and similar campaigns against corporate directors in the US, and with a say-on-executive-pay in the UK suggests that these advisory votes may induce some constraints, but likely not strong ones.[48]

U.S. corporate law, unlike many other countries, does not require companies to provide preemptive rights for share issuances, and companies rarely include these rights in their charters. The maximum number of authorized shares must be stated in a company's charter, and shareholders approve charter amendments, but most charters authorize far more shares than are currently outstanding, so this constraint rarely binds. Many company charters also authorize "blank check" preferred shares, which can be issued on any terms the board decides.

NYSE rules require shareholder approval if the company issues common shares (or securities convertible into common shares) exceeding 1% of the previously outstanding common shares for issuances to directors and officers, and 5% for issuances at market value to substantial shareholders.[49] For very large offerings, above 20% of the company's previously issued

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[47] Dodd-Frank Wall Street Reform and Consumer Protection Act § 951 (2010); Securities Exchange Act rule 14a-21 (2011).

[48] On just vote no campaigns in the US, see Ertimur, Ferri and Muslu (2011). On shareholder proxy proposals that companies should adopt an advisory say-on-pay, see Cai and Walkling (2011). On UK say on pay, see Gordon (2009) and Ferri and Maber (2010).

[49] NYSE Listed Company Manual § 312.03(b). The threshold for issuance to a substantial security holder with no other affiliation to the company is 5% if the issuance price is at least the greater of book value or market value.

common shares, NYSE and NASDAQ rules require shareholder approval, with exceptions for public offerings for cash and "bona fide" private offers at market value.[50] However, the rule does not cover preferred stock, even if the shares convey economic and voting rights similar to common stock.[51]

Disclosure Rules. Disclosure is required for most equity transactions between the company and insiders. For common shares (and options or other securities convertible into common shares), insiders must report all transactions, with the company or anyone else, regardless of size, under Exchange Act § 16.[52] Exchange Act § 16 covers only publicly registered classes of shares. But transactions with insiders in unregistered shares must also be disclosed, as part of general disclosure of related party transactions, with a $120,000 threshold.[53]

After a long battle with executives over accounting for stock options ended in 2005, the company must treat issuance of options to executives as a compensation expense.[54] There is evidence that this change reduced option grants, especially for executives who previously received larger option grants than executives at similar firms.[55]

While the compensation charge to income is now transparent, there remains a hidden tax cost to the company from using option compensation, relative to cash or restricted stock. Some (for "nonqualified" options) or all (for "qualified" options) of the option value becomes capital

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[50] NYSE Listed Company Manual § 312.03(c).

[51] NYSE Listed Company Manual § 312.03(c).

[52] Securities Exchange Act § 16(a); Exchange Act Forms 3-5.

[53] See discussion of related party disclosure in Section 3.1 above.

[54] Financial Accounting Standards Board Rule 123R (replacing Accounting Principles Board Opinion No. 25, which allowed companies to report zero expense for options with an exercise price equal to current market value).

[55] Feng and Tian (2009). The drop in option grants is only partly offset by larger grants of restricted shares.

gain to the executive, with no deduction to the company.[56] The lost deduction increases the company's tax liability, but its effective cost is not separately disclosed.

Equity-based compensation through stock options (or restricted stock awards) also affects a firm's operating cash flow. In the year of grant, there is no cash flow impact. In the year when the restrictions on exercise lapse, the executive recognizes compensation income and the firm gets an offsetting deduction, which reduces tax liability and thus increases after-tax operating cash flow. For some firms, this tax benefit comprises a high percentage of total operating cash flow.[57]

Many firms offset dilution due to option grants by repurchasing shares. Imagine a firm that routinely offsets its option-based dilution. One can understand the cost of repurchasing shares as reflecting the cash cost of option compensation. But that is not how it is treated under accounting rules. The repurchase is a negative *financing* cash flow in the year of repurchase, but does not offset the positive effect of the compensation deduction on operating cash flow. Thus, a firm which pays executives with options, but offsets the dilution by repurchasing shares, will report higher operating cash flow than a similar firm which pays executives in cash. It is unclear whether investors fully understand how option compensation affects cash flow.[58]

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[56] The executive normally pays ordinary income on the value of restricted stock, and (for non-qualified options, the 'in-the-money" value of options, when the restrictions lapse; the company gets a corresponding deduction for compensation expense. The remaining option value is not taxed; any eventual gain to an executive is capital gain, with no deduction to the company. For "qualified" incentive stock options, the executive pays capital gain when the restrictions lapse, and the company received no deduction at all.

[57] Ciccotello, Grant, and Grant (2004) (20% of operating cash flow of NASDAQ 100 firms over 1999-2001 reflects tax savings related to option grants; versus 3% for S&P 100 firms).

[58] See Landsmann, Peasnell, Pope, and Yeh (2006) (discussing alternate potential accounting treatments of option compensation); Atanasov and O'Brien (2010) (case study of value extraction by insiders at Nabors Industries).

Tax and Creditor Protection Rules. Tax and bankruptcy law do not directly affect equity issuances to insiders, because equity issuance is not a taxable event. Indirectly, tax law encourages use of equity compensation and limits its form. I.R.C. § 162 effectively limits non-incentive compensation to $1 million per executive; the company can pay more than this but can deduct only $1 million. Restricted stock and stock options are treated as incentive compensation.

With regard to the form of compensation, taxation of stock options and restricted stock grants can be deferred until the restrictions lapse; the executive will then typically sell enough shares to pay the income tax.[59] As noted above, option compensation has a tax cost relative to cash or restricted stock, which is normally not disclosed.

3.3.2. Freezeouts.

Corporate Governance Rules. These rules give minority shareholders moderate protection against underpriced freezeouts. Some countries require majority-of-minority approval of the freezeout price, but the U.S. does not.[60] Many controllers behave well, for example by creating a special committee of independent directors, negotiating the freezeout price with the committee (quasi arms-length negotiation), conditioning the freezeout on majority-of-minority approval (or majority-of-minority acceptance of a first-step tender offer).[61] But some simply make a buyout offer directly to shareholders, which on average is likely at a lower price than the

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[59] I.R.C. § 83.

[60] See the overview of legal strategies by Kraakman et al. (2009), ch. 6. For an overview of U.S. regulation, see Gilson and Black (1995), ch. 22; Gilson and Gordon (2003). We are deliberately terse in our treatment of this complex area.

[61] For evidence on average freezeout prices, see Bates, Lemmon and Linck (2006).

quasi-arms-length process would produce.[62] Some start by negotiating with a special committee, but switch to a tender offer if the committee insists on a higher price than the controller is willing to pay. And some simply bull ahead, judging that they will do better in court defending the predictable suit by minority shareholders than by paying a higher price up front. The circumstances under which a first-step tender offer faces entire fairness review remain uncertain.[63]

As against a hard-nosed controller, shareholders retain appraisal rights, but these are realistically available only for large shareholders. Moreover, they will be based on observable value after other forms of tunneling. Judges tend to trust market prices unless shown to be wrong in a particular case. Thus, appraised value is often heavily dependent on market price. If a controller is tunneling some of the firm's cash flow, is engaging (or expected to engage) in equity tunneling, or simply uses private information about expected future cash flows to conduct the freezeout at an opportune time, these factors will create a gap between market value and no-tunneling value, which minority shareholders are unlikely to recapture through appraisal.[64] So will the controller's ability to manipulate its financial reports to reduce market value.[65] In some

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[62] See Subramanian (2007). The buyout offer is typically followed by a freezeout merger, but damages are lower if the controller owns over 90% and can complete a short form merger, for which appraisal is the only remedy; and are lower even if the controller holds less than 90% because there are fewer minority shareholders left.

[63] Compare In re CNX Gas Corp. (Del. Ch. 2010) (Chancellor Lester) with In re Pure Resources, Inc. Shareholders Litigation, 808 A.2d 421 (Del. Ch. 2002) (Chancellor Strine).

[64] On discounts due to controller timing of the freezeout, see Maug (2006). On discounts due to other sources of tunneling, see Atanasov, Black, and Ciccotello (2009). For an example of discounts in a high-tunneling environment, see Atanasov, Black, Ciccotello and Gyoshev (2010).

[65] This is the opposite of the known tendency of firms to report unusually high earnings before IPOs (Teoh, Wong, and Rao (1998), Teoh, Welch, and Wong (1998)). There is no comparable study of pre- versus post-freezeout earnings because post-freezeout, firms are private.

situations, a class action suit will be available, but the effectiveness of this remedy depends on the uncertain vigor of class action counsel.[66]

Disclosure Rules. Freezeouts are affected by general public disclosure as well as freezeout-specific disclosure rules, which require detailed discussion of the freezeout process and the basis for any fairness opinion delivered to the company or the special committee.[67] This disclosure helps to ensure that the market price reflects observable value, but for the reasons noted above, the pre-freezeout price will still likely be below the firm's no-tunneling value. Still, disclosure helps to provide the information on which a lawsuit can be based.

Tax rules. Freezeout transactions involve a sale of shares by minority shareholders, which accelerates the payment of capital gains tax. They can normally be structured to be tax-free for the controllers. Since freezeouts are typically revenue-positive for the Treasury, they receive no special scrutiny.

Creditor Protection Rules. Freezeouts often involve borrowing the funds used to pay the minority. There can be occasional instances in which the company's solvency after the freezeout is in doubt, in which case fraudulent conveyance rules might dissuade lenders from lending, in which case the freezeout will not happen.

A more important concern for a financially troubled firm involves a controller lending funds to the firm, and then using its creditor position to freeze out minority shareholders for little or no consideration. For example, the controller can swap its debt for a high percentage of the

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[66] For a recent example of class counsel non-vigor despite strong facts in a case involving Ronald Perelman, who has been a prior abuser of minority shareholders and creditors, see In re Revlon, Inc. Shareholders Litigation (Del. Ch., C.A. No. 4578-VCL, 2010).

[67] The principal regulation of going-private transactions is in Exchange Act Rule 13e-3 and related Schedule 13E-3.

firm's post-swap shares (potentially 100%), thus diluting minority shareholders. These "loan to own" schemes sometimes take place in bankruptcy, sometimes in its shadow. Fairness of price can be very hard to determine.[68]

Corporate governance rules provide little protection against equity tunneling by controller-creditors. The controller, wearing its debtholder hat, has no fiduciary obligation to anyone.[69] If the non-conflicted directors can be persuaded to approve a debt-for-equity swap outside bankruptcy, a fiduciary duty suit against them is unlikely to succeed. Once in bankruptcy, most bankruptcy judges have little sympathy for equity holders.

3.3.3. Sales of Control

Corporate Governance Rules. Many countries limit the power of a controller to sell control, leaving the minority behind. This reduces the cost of a purchase of control, which can be efficient in some situations, but places the minority at risk of self-dealing by the new controller.[70] Many jurisdictions, including the European Union, require an equal offer to be made to all shareholders. Others, including Bulgaria, require majority of minority approval of the transfer of control. U.S. law does not directly protect minority shareholders against the risk of a sale of control, but does provide some indirect constraints.

The main line first. In general, a controller can sell his shares to whomever he pleases for whatever price the market will bear. If the controller sits on the company's board, he has

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[68] Atanasov and O'Brien (2010) provide a case study involving Nabors Industries; Atanasov, Ivanov and Litvak (2009) offer examples involving venture capital-backed firms.

[69] A similar situation arises if the controller holds convertible preferred; the preferred shareholder may have effective control but few or no fiduciary duties. Fried and Ganor (2006).

[70] See, for example, Gilson and Gordon (2003); Kraakman et al. (2009); Burkart, Gromb and Panuzzi (1998).

fiduciary duties in that capacity, but he faces no separate duty as a controlling shareholder, with a narrow exception for sale of control to a known (or reason to know) looter.

However, sale of control at a premium is not so simple in practice. First, Delaware corporate law § 203, adopted to limit hostile takeovers, but supplanted in that function by the poison pill, limits a second step freezeout following acquisition of a 15% stake, unless the acquisition is approved by the target's board or the acquirer obtains over 85% ownership in a single step. This gives the independent directors substantial power. They have a duty to use their § 203 power to negotiate on behalf of the minority, and can refuse to approve the acquisition unless the acquirer offers to buy the minority's shares at the same price. Selling control at a premium is easier if a firm uses dual-class shares, though here too the independent directors can use their § 203 power to limit the premium paid for high-voting shares.

Second, if the firm has a poison pill in place, it will usually need to be waived to permit the sale of control. Here too, the independent directors can refuse to waive the pill unless the acquirer buys all shares for the same price. For both § 203 and the poison pill, the controller's nominees can often outvote the independent directors, but will face a suit for breach of fiduciary duty that they will likely lose. As with freezeouts, some controllers bull ahead despite the expected lawsuit.[71]

Disclosure Rules. The sale of control will not be a secret. The acquirer and the controller will each report the sale, including the price paid for the controlling shares. The acquirer will report the acquisition and its future plans on Exchange Act Schedule 13D; the controller must report as part of the general Exchange Act § 16 system for insider reporting of

[71] See, for example, In re Digex Inc. Shareholder Litigation, 789 A.2d 1176 (Del. Ch. 2000).

trades in a company's shares; the company will thereafter report the new controller's ownership in its annual proxy statements.

Tax Rules. No special rules apply.

Creditor Protection Rules. Usually, no special rules apply, because the transaction is between two shareholders, and does not directly affect the firm's solvency. However, lenders sometimes negotiate for loan terms which give them the right to be paid on a change of control ("poison put covenants"). If they distrust the new controller, they can demand repayment. More commonly, they will demand some compensation for agreeing to waive the right to repayment.

3.3.4. Insider trading

Insiders can extract value by using their informational advantages to trade with less-informed investors in public securities markets at advantageous prices. Sometimes, they can manipulate the firm's near term results, or the information available to public investors, to make their trades more profitable. Sometimes they can directly manipulate the trading price. A freezeout at an opportune time, including one made opportune by manipulating performance, disclosure, or trading prices, is an example of these more general problems.

Corporate Governance Rules. Insiders and firms are barred from trading on inside information by a combination a general prohibition under Exchange Act § 10(b) on trading while in possession of "material" inside information; officers, directors, and 10% shareholders are also subject to "short swing profit recapture" rules under Exchange Act § 16, which extract any profit the insider earns from offsetting sales and purchases (or purchases and sales) within a 6-month period. Both sets of rules are actively enforced. The SEC and the stock exchanges investigate unusual trading before important announcements; violators face triple damages in a civil suit by the SEC, and potential criminal liability as well. Lawyers police the short-swing rules because

they can earn fees by bringing suits on the company's behalf to recapture the insider's profits. Insider trading by directors and officers would also violate their fiduciary duties, but in practice, this adds little to the 10(b) and 16(b) rules.[72]

At the same time, there are areas that the insider trading rules do not reach. Insiders can lawfully profit by *not* trading – not selling before good news, nor buying before bad. They can rely on the Rule 10b5-1 safe harbor for pre-arranged sales on a regular schedule – and then cancel a sale if good news is expected.[73] An insider who is willing to wait out the 6-month short swing period can benefit from soft information that outside investors lack, but which is not material, or not provably so. In general, what insiders can do directly, they can cause their firms to do as well.[74]

Disclosure Rules. The short-swing profit recapture rules are combined with reporting rules governing all transactions in shares, options, and other equity derivatives. Thus trades by insiders must be either reported or actively concealed. Concealment would provide evidence of intent, and thus raise the risk of criminal prosecution. The company reports quarterly the number of shares outstanding, which is related to whether it has issued or repurchased any shares, but not details of particular transactions.

Tax Rules. No special rules apply.

Creditor Protection Rules. Creditor protection rules don't reach transactions between insiders and other shareholders. They can restrict a corporation from purchasing shares from

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[72] For an overview of the insider trading rules, see Allen, Kraakman and Subramanian (2009), ch. 13. On the potential for insider trading rules and enforcement to affect share prices, see Beny (2008); Bhattacharya and Daouk (2002, 2009).

[73] See Jagolinzer (2009).

[74] The corporation must comply with rules, notably Exchange Act Rule 10b-18, designed to limit price manipulation. There is also no corporate analogy to a Rule 10b5-1 plan.

insiders shortly before bankruptcy; repurchases from insiders within a year of the bankruptcy filing will be reversed.

3.4. An Overview of Gaps in Rules Regulating Self-Dealing

Sections 3.1-3.3 offered a detailed assessment of how particular rules affect particular forms of tunneling. In this section, we take a step back and offer an overall assessment of how effective U.S. rules are in preventing self-dealing transactions. Table 1 contains an overview of our personal judgment on the strength of legal protections against different types of tunneling as none, minimal, weak, moderate, or strong. Some cells involve close calls, but the big picture is clear. For many tunneling types, there are significant gaps in legal controls.

Consider first the columns in Table 1. Corporate governance rules have the largest overall effect, but vary in strength, and are minimal or weak in a number of areas. Disclosure rules are strong for equity tunneling and executive compensation, but weak elsewhere. Moreover, many insiders will be willing to line their own pockets if the only constraint is telling shareholders what they have done. This particular disclosure dog is all bark and no bite. The most important effect of tax rules is indirect: they discourage pyramids and thus limit opportunities for intra-group asset tunneling and transfer pricing. Tax rules otherwise have little impact. Creditor protection rules matter for financially distressed firms, but only in some areas.

Consider now the rows of Table 1. Where corporate governance rules are weak, there is no assurance that another set of rules will pick up the slack. Controls on equity tunneling are reasonably robust, with the notable exception of executive compensation. In some other areas, all constraints are weak. Notably weak areas include asset tunneling; cash flow tunneling through transfer pricing, and loans to insiders other than directors and officers.

Overall, the U.S. legal constraints on tunneling glass can be described as a glass at best half-full.[75] Atanasov, Black, and Ciccotello (2011) illustrate via case studies that the gaps in US self-dealing rules can be exploited in the real world. For an aggressive insider, who will take whatever tunneling opportunities the legal system offers, the menu is rich, even if not unlimited. If the U.S. remains a mostly low-tunneling place, the explanation may owe much to constraints other than formal rules.[76]

At the same time, informal constraints can weaken over time. Executive compensation offers an example. Thirty years ago, no one worried much about the compensation of large firm CEOs. To become seriously rich, one had to found a firm, not merely run it. Today, many non-founder CEOs do get seriously rich, and there is general, albeit not universal concern that executives are overpaid and pay is often loosely tied to performance or to a competitive market for executive talent. The difference lies not in law –flabby then and only slightly less flabby now – but in norms.[77]

Table 1 provides a research agenda in two ways. First, we predict that the principal gaps in tunneling protection will be exploited – that real-world examples will be found to correspond to those gaps. Atanasov, Black, and Ciccotello (2011) offer specific examples. Second, although the cell entries are U.S.-specific, the Table offers a template for assessing tunneling

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[75] Our assessment of U.S. rules is far more detailed than, but consistent in spirit with, the conclusion by Spamann (2010) that the U.S. scores only 2/5 on a corrected "LLSV" (La Porta et al., 1998) anti-director rights index.

[76] Black (2001) discusses the role of a variety of legal and market institutions in constraining self-dealing. For optimistic assessments of the overall level of tunneling by controllers at U.S. firms, compared to other countries, see Nenova (2003); Dyck and Zingales (2004). For evidence suggesting significant private benefits of control, see Barclay and Holderness (1989).

[77] For example criticisms of executive compensation, see Crystal (1991); Bebchuk (2004); Jensen, Murphy, and Wruck (2004).

protections in other countries. No country, we predict, will provide strong tunneling protection across the board. Some will do better than the U.S. in particular areas. Their rules might offer guidance on what one might call "best practices" in anti-tunneling rules.

4. Implications for the Design and Enforcement of Laws against Self-Dealing

The principal goal in this article is to highlight areas of comparative strength and weakness in the regulatory control of self-dealing. Proposing detailed reforms to address specific weaknesses is well beyond our scope. Still, we can offer some general observations and recommendations:

Reduce Legal and Accounting Arbitrage Opportunities

Tunneling, by its nature, is a transfer of wealth across boundaries. One motive for tunneling is arbitrage created by wedges in the law. One (now fortunately past) motive for use of executive stock options was that they allowed off-income-statement compensation, because the options were treated as not involving compensation expense if granted with an exercise price equal to current share price. Executive stock options remain favored by the rules governing cash flow disclosure – the company's tax deduction when an option is exercised boosts cash flow from operations; while the share repurchases needed to offset share dilution from option issuance are considered cash flows from financing.

Asset tunneling is encouraged by the different treatment of the transaction by seller and buyer. Atanasov, Black, and Ciccotello (2011) illustrate how Coca-Cola could report large profits by selling bottling plants and franchise rights to Coke Enterprises for well above their value on Coca-Cola's books. Yet there was no offsetting expense for Coke Enterprises, which recorded goodwill and other intangible assets for the purchase (goodwill was written off at the time over 15 years; today it is not written off at all unless materially impaired).

Executives who defer their compensation or pension income often earn above-market interest rates. The company records the expense over time, and *not* as a compensation expense. The true compensation is hidden, so use of this disguise is encouraged.

Harmonizing tax rules will reduce incentives for arbitrage. For example, one motive for cash movement is tax arbitrage – transferring profits to an entity (or individual) paying a lower tax rate. Once transferred, the profits may be vulnerable to tunneling. In general, a flatter tax with broader applicability reduces this motive.

Shareholder Power to Approve or Challenge Self-dealing Transactions

U.S. corporate law is director-centric. What the outside directors approve, the shareholders can rarely contest. Thus, if a tunneler's dealings are approved by a passive board, shareholders have few remedies. Perhaps we should rethink the degree to which corporate law protects self-dealing transactions, especially large ones, even when approved by outside directors. Ex-post judicial remedies are only one response to self-dealing. Ex ante approval of significant transactions, by a majority of non-conflicted shareholders, has promise as well. The recent Dodd-Frank "say on pay" reform moves in this direction for executive compensation, albeit not very far.

Disclosure of Self-Dealing Transactions

The analysis suggests that self-dealing is often not effectively disclosed. There is clear need for more complete disclosure, for a broader range of related-party asset sales and purchases. Ideally, this disclosure should be close to real time, to allow shareholders to challenge the transaction before it is completed. Above a threshold size, disclosure might include the pro forma impact of the transaction on the company's financial statements, similar to pro forma financial statements for acquisitions. At present, disclosure often appears in opaque footnotes, in

the next annual report or proxy statement. Enron was not alone in ensuring that these disclosures conveyed little or no information to shareholders about its related party transactions.

Gatekeeper Review for Fairness

Disclosure helps, but without more may not ensure fairness. Moreover, even with better disclosure, fairness may be hard for shareholders to assess. One approach to improving the fairness of self-dealing transactions would be to require a company's auditors, or another "gatekeeper," to assess the fairness of the terms for any transaction over a threshold size.[78] The assessment would become public in the next annual report. But the insiders, knowing it was coming, would want to obtain the auditors' approval in advance, when the terms are still malleable and could be adjusted to make the auditors comfortable.

Today, fairness opinions are sometimes laughably far from the truth. A touch of direct liability to minority shareholders would reduce this problem; though how much liability would be optimal is a hard problem that we do not reach here. So would having the gatekeeper chosen by shareholders, instead of the board – a strategy that might also address the pro-management bias of compensation consultants.[79]

5. Summary and Future Research

This paper unbundles self-dealing by focusing first on what is being taken -- cash flow, assets, or equity – and second on the different sources of regulation that constrain self-dealing. The result is a more granular understanding of how insiders can extract wealth from firms, how different laws and regulations affect self-dealing; and the self-dealing opportunities that U.S. laws leave open for insiders who are willing to bear the reputational cost. We identify a number

[78] See Black and Kraakman (1996), proposing such a scheme for Russia.

[79] For discussions of this problem, see, e.g., Bebchuk and Fried (2004); Crystal (1991).

of gaps in legal protections against self-dealing, and offer preliminary suggestions for reforms to address these gaps.

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Table 1. Law and Tunneling

This table summarizes the strength of tunneling protections for small-to-moderate transactions. In some cases, additional protections may apply for very large transactions (for example, shareholder approval of large issuances of common shares to insiders, or for sale of "all or substantially all" assets. We consider creditor protection rules that apply to firms that are in financial distress (or would be after the tunneling); these rules provide essentially no tunneling protection for other firms.

<table>
<tr><th></th><th>Corporate governance rules</th><th>Disclosure rules</th><th>Tax rules</th><th>Creditor protection rules</th></tr>
<tr><td>Cash flow tunneling</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Transfer Pricing</td><td>Weak</td><td>Weak</td><td>Indirect: discourage pyramids
Weak (US to foreign); none (US to US)</td><td>Weak</td></tr>
<tr><td>Excessive executive compensation</td><td>Weak</td><td>Strong</td><td>Weak</td><td>Minimal</td></tr>
<tr><td>Asset tunneling
Asset sales to related parties</td><td>Weak</td><td rowspan="3">Weak</td><td rowspan="4">Indirect: discourage pyramids
Direct: none or minimal</td><td>Moderate</td></tr>
<tr><td>Asset purchases from related parties</td><td>Minimal</td><td>Rare</td></tr>
<tr><td>Investments in affiliates</td><td>Weak</td><td>Rare</td></tr>
<tr><td>Divert business opportunities</td><td>Minimal</td><td>None</td><td>None</td></tr>
<tr><td>Equity tunneling
Dilution through sale of shares</td><td rowspan="5">Moderate</td><td>Strong</td><td rowspan="5">None</td><td rowspan="5">None</td></tr>
<tr><td>Dilution through executive compensation</td><td>Moderate</td></tr>
<tr><td>Freezeouts</td><td rowspan="2">Strong</td></tr>
<tr><td>Sales of control</td></tr>
<tr><td>Insider trading</td><td>Moderate</td></tr>
<tr><td>Mixed forms of tunneling
Loans to directors and exec. officers</td><td>Strong</td><td>n.a.</td><td>n.a.</td><td>n.a.</td></tr>
<tr><td>Loans to other insiders or related firms</td><td>Weak</td><td>Weak</td><td>None</td><td>Moderate</td></tr>
</table>

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