

Firm Size and Industry Structure Under Human Capital Intensity: Insights from the Evolution of the Global Advertising Industry

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Although existing literature assumes that the human capital intensity of professional services leads to small and flimsy firms, several professional services feature large, long-lived firms. To develop insights about firm size and industry structure in human capital intensive industries, I analyze the structure and evolution of the advertising industry. Drawing on a range of quantitative and qualitative evidence, I develop two hypotheses regarding the industry's structure and consolidation: (1) *size differentiation*, in which firm size and industry structure are connected to the size distribution of clients' projects, and (2) *financial intermediation*, in which the industry's consolidation is ascribed to organizational innovations that mitigate transaction costs between external investors and ad agency owners. I then discuss the applicability of these two hypotheses to other professional services. The analysis suggests several new insights about the value of capital, the nature of demand, and the nature of assets in human capital intensive industries.

Key words: human capital; professional services; industry structure; financial intermediation; industry evolution; advertising agencies; vertical differentiation

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Introduction

For insights into the organizational implications of human capital intensity, scholars often look to professional services, where critical sources of value, such as skills and personal relationships, cannot be owned by firms. For example, to illustrate how human capital intensity challenges traditional corporate governance, both Hart (1995) and Rajan and Zingales (1998, 2000) tell the story of the ad agency Saatchi & Saatchi, where outside shareholders ousted founder and chairman Maurice Saatchi in a dispute over his compensation, only to have him found a new firm and then poach key personnel and clients months later. The apparent lesson from the Maurice Saatchi story is that a firm based primarily on inalienable human capital will be “vulnerable . . . because employees can leave the firm, causing a loss of its main assets” (Nachum 1999, p. 25) and “flimsy and unstable . . . constantly subject to the possibility of breakup” (Hart 1995, pp. 58–59). Indeed, a main thrust in the growing literature on professional service firms is the identification of distinctive organizational practices that are employed to mitigate this vulnerability, such as partnership governance and “collegial” (rather than bureaucratic) controls (Greenwood and Empson 2003, Greenwood et al. 1990).

However, because these mechanisms are assumed to function less effectively as firm size increases (Greenwood and Empson 2003, Hansmann 1996, Lorsch

and Tierney 2002), organizational economists and organization theorists commonly assume that human capital intensive professional services will be characterized by small firms and, consequently, fragmented industry structure (Hansmann 1996, Lorsch and Tierney 2002). In fact, firm size is often mentioned as a relatively unimportant competitive factor or even as a competitive liability in professional services (Lorsch and Tierney 2002, Lowendahl 2000, Starbuck 1992).

Yet in contrast to these theoretical expectations, several professional service industries not only feature large long-lived firms but also have experienced significant consolidation (Lorsch and Tierney 2002, Powell et al. 1999). One obvious example is the accounting industry, which is now dominated by four firms that employ thousands of professionals around the globe. Less well-known but equally interesting is the advertising industry—the very setting for the Maurice Saatchi story—whose global C4 ratio (the market share of the largest four firms) rose from 11% in 1961 to 38% in 2001, and whose largest firms have billions in revenues and tens of thousands of employees worldwide. Thus, the advertising industry has large firms, despite the fact that minimum efficient scale is very low (Silk and Berndt 1993, 1995), and has experienced significant consolidation, despite virtually no R&D spending, which is the primary driver of consolidation in the industry evolution literature (Klepper 1996, Sutton 1998).

How then might we account for large firms and consolidated industries in professional services? What advantage might accrue to larger firms to counteract their vulnerability to the mobility of their key assets, given that their size renders ineffective key organizational remedies for that vulnerability? Despite the growing literature on professional services, very little explicit research, theoretical or empirical, exists on the role of firm size and the nature of industry structure, aside from estimations of scale and scope economies (Banker et al. 2003; Silk and Berndt 1993, 1995, 2004). This relative dearth of research warrants inductive approaches that seek to build theory. So to build our understanding of firm size and industry structure in human capital intensive professional services, this paper analyzes the structure and evolution of the advertising industry since 1960.

The analysis draws on four primary sources of evidence: a database of the world's largest 100 advertising firms since 1960, a database of 2,285 client-agency pairings from 2001 to 2006, interviews with a range of industry participants, and an extensive review of the trade press and other secondary sources (details about the advertising firms database and the interviews are available in the online appendix, available at <http://orgsci.pubs.informs.org/ecompanion.html>). It uses this evidence to develop hypotheses about the function of large firms in the advertising industry.

I summarize the key arguments here. The advertising industry features two distinct types of organization: the *agency*, which directly produces advertising services, and the *holding company*, which owns multiple agencies. The paper proposes separate hypotheses regarding firm size at the agency level and the holding company level. At the agency level, the paper proposes the idea of “size differentiation,” a specific form of vertical differentiation (Shaked and Sutton 1982, Sutton 1991) in which agency size is linked to the ability to coordinate large, complex advertising campaigns and this coordination ability is valued more highly by larger clients. Thus industry structure is linked to the size distribution of clients' projects.

At the holding company level, the paper proposes the idea of “financial intermediation.” A key source of value generated by the holding companies is mitigating the high transaction costs between outside investors and agency owners. I argue that this hypothesis helps explain the historical timing of the holding company phenomenon, which did not thrive until the 1980s.

The paper then reviews research on law, accounting, and consulting firms to show how these hypotheses are relevant beyond advertising. It also shows that these hypotheses provide a framework that ties together a seemingly unrelated set of findings and recent developments in those industries and explains oft-noted but seldom-explained patterns in the matching between professional services firms and their clients. Overall, this analysis suggests a new view of the nature of firm size

and industry structure in human capital intensive professional services as well as several new insights into the value of external capital, the nature of demand, the nature of assets, and the role of organization in such industries.

The next section describes the nature of production and industry structure in advertising, delineating between agencies and holding companies. Section 3 proposes the size differentiation hypothesis for agency-level structure. Section 4 proposes the financial intermediation hypothesis for the holding companies. Section 5 links the holding companies to the evolution of the industry's access to capital. Section 6 discusses the relevance of the hypotheses to other professional services. And the Discussion section concludes by articulating the paper's theoretical contributions and noting directions for future research.

The Advertising Industry: Nature of Production and Industry Structure

By “advertising industry,” this analysis refers to firms that design and implement advertising campaigns for clients, firms generally referred to as advertising agencies (or ad agencies). Ad agencies have traditionally provided three services: *marketing strategy*—suggesting which customers to target with what message and how best to allocate an advertising budget across various media; *creative*—creating the advertisements; and *media buying*—on behalf of the client, buying placement of the advertisements across an expanding range of media (newspapers and magazines, radio, television, internet). In addition, ad agencies have increasingly participated in a range of other marketing communications services, such as direct mail, sales promotion, and public relations (I refer to these other service lines with the term “marketing services” to distinguish them from traditional advertising).

The production of advertising services relies primarily on human capital: marketing expertise, creative talent, relationship management skills, i.e., assets that “walk out the door each night” (Nachum 1999; Silk and Berndt 1993, 1995). There are few opportunities for capital investment in alienable nonhuman assets (Cook and Nohria 1991). Where producing advertisements involves expensive equipment (e.g., TV production or commercial printing), the work is typically outsourced and charged directly to the client. Thus advertising services require few fixed costs and few alienable assets, which makes entry into the industry very easy (Silk and Berndt 1995). This fuels the idea of “flimsy” firms because ad agency employees can leave to start new firms apparently with ease.

Not surprisingly, the advertising industry is fragmented, with thousands of individual firms. Since 1977, the Census Bureau has reported between 8,000 and 11,000 advertising firms in the United States (Silk and King 2008). The vast majority of these agencies are

very small: The mean agency in 1997 consisted of 11.6 employees and \$1.3 million in revenue (King et al. 2003). But there are also long-lived large firms. To understand the nature and extent of large firms in the industry, it is important to distinguish between two types of firms: *agencies* and *holding companies*.

Agencies are the basic units of competition. They are organizations that directly produce advertising campaigns, with a single identity in the product market. The largest agencies are large organizations. In 2001, the world's largest agency, McCann-Erickson, had more than \$3 billion in revenue and more than 24,000 employees (*Advertising Age* 2002). In contrast to the expectations of flimsiness, large agencies have also persisted for long periods of time. Of the 25 largest agencies in 1961, 21 still existed in 2001.

Holding companies, which arose largely since the mid-1980s, do not produce advertising services directly but instead own hundreds of ad agencies and other marketing services firms, many of which retain distinct identities and operate with considerable autonomy. Most notably, the holding companies own “duplicate” large agencies that compete with each other for the same clients. To illustrate more clearly the holding company phenomenon, Table 1 lists the world's 25 largest advertising firms in 1981 and in 2001 (for details on the construction of these lists, see the online appendix). In 1981, one holding company owned three large agencies, but the rest of the top 25 were independent agencies (none of whom owned a second large agency). In 2001, there were five holding companies that owned multiple large agencies.

In most instances, the holding companies' large agency subsidiaries are each global, with offices around the world, and multiproduct, operating across a broad range of media channels and marketing services. For example, in 2001, WPP's three large agencies, J. Walter Thompson, Ogilvy and Mather, and Young and Rubicam, operated in 90, 77, and 80 countries, respectively, and each offered direct mail, sales promotion, public relations, ethnic marketing, etc. (*Advertising Age* 2002).

This “duplicate” agency aspect of the holding companies is tied to the industry's *client conflict norm*. It is a longstanding norm that agencies cannot work for clients that are direct competitors (e.g., Coke and Pepsi, GM and Ford), enforced not by any regulations but by clients themselves, who will not do business with an agency that serves a competitor. By owning multiple large agencies, holding companies are able to serve competing large clients under the same corporate umbrella (Nanda 2004, Silk and Berndt 2004). Just how this might be an advantage is a key question addressed in §4.

The extent of subsidiary autonomy varies across holding companies, with some only monitoring financial results whereas others share “back office” resources or even try to coordinate marketing between traditional agencies and marketing services firms (King et al. 2003,

Silk and Berndt 2004). But the level of coordination, particularly between the large subsidiaries, is limited by the conflict norm: Too much integration might lead to the loss of competing clients.

As shown in Table 1, the holding company phenomenon has transformed the structure of the top end of the industry. Whereas in 1981, large agencies were almost all independent, by 2001, 17 of the 18 largest agencies, and 19 of the top 25, were owned by holding companies. In the United States, holding companies owned 24 of the top 25, 45 of the top 50, and 67 of the top 100 agencies (*Advertising Age* 2002). This ownership transformation has had a substantial impact on the industry's structure. Table 2 shows two measures of the industry's C4 ratio from 1961 to 2001 (for details on the construction of these C4 estimates, see the online appendix). The first row shows C4 at the holding company level (not treating subsidiary agencies as separate firms). From 11% in 1961, C4 rose almost fourfold to 38% by 2001. Most of this increase occurred after 1981, when the holding company phenomenon appeared in force. By contrast, the second row shows C4 calculated at the agency level, disregarding holding companies and using their subsidiary agencies as the units of analysis. By this method, C4 only rose to 19% in 2001. Thus, acquisition of large agencies by holding companies, as opposed to increases in the share of the largest agencies themselves, accounted for two-thirds of the overall increase in the industry's C4 ratio.

To summarize, ad agencies rely largely on inalienable human capital, so they have been assumed to be vulnerable to breaking apart as individuals leave to form their own firms. This makes the persistence of large ad agencies puzzling and makes the industry's consolidation into even larger holding companies especially puzzling. The following sections address firm size at these two levels, focusing on the following questions: (1) What explains the existence and persistence of large agencies? (2) What explains the rise of holding companies after 1981? In both instances, the key goal is to identify sources of advantage accruing to larger firms that keep them together despite the ease with which their assets can leave.

A Theory of Large Advertising Agencies: Coordination and Size Differentiation

In many industries, scale and scope economies are a common source of advantage for large firms. But this does not seem to be a compelling explanation for the magnitude and persistence of large agencies in the advertising industry. A stream of research by Silk and Berndt (Schmalensee et al. 1983; Silk and Berndt 1993, 1995) finds that scale and scope economies do exist in advertising but that the bulk of those economies are achieved at fairly low thresholds (\$3–\$4 million in annual revenue)

Table 1 Largest 25 Advertising Firms, Globally, 1981 and 2001

1981				2001				
Rank	Name	Sales (Gross Inc.) (\$mil)	Subsidiary sales	Rank	Name	Sales (Gross Inc.) (\$mil)	Subsidiary sales	Percentage of sales from United States
1	<i>Interpublic</i>	559		1	<i>WPP (UK)</i>	8,165		
	McCann-Erickson		277		J. Walter Thompson		1,645	41
	Marschalk		106		Ogilvy & Mather		1,580	36
	SSCB		176		Young & Rubicam		1,519	43
2	Dentsu (Japan)	428		2	<i>Interpublic</i>	7,981		
3	Young & Rubicam*	353			McCann-Erickson		3,032	47
4	J. Walter Thompson*	332			Lowe		1,914	63
5	Ogilvy & Mather*	287			FCB		862	56
6	Bates*	237		3	<i>Omnicom</i>	7,404		
7	BBDO*	205			DDB		2,484	54
8	Leo Burnett*	199			BBDO		2,333	42
9	FCB*	170			TBWA		1,324	37
10	DDB*	165		4	<i>Publicis Groupe (France)</i>	4,770		
11	D'Arcy*	164			Publicis		1,509	33
12	Hakuhodo (Japan)	143			Leo Burnett		1,129	47
13	Grey	133			D'Arcy		903	46
14	Benton Bowles^	128			Saatchi & Saatchi		625	48
15	Compton^	119		5	Dentsu (Japan)	2,796		
16	Eurocom* (France)	103		6	<i>Havas Advertising (France)</i>	2,733		
17	Dancer Fitzgerald^	85			Euro RSCG (fka Eurocom)		1,806	42
18	NW Ayer^	78			Arnold		578	60
19	Publicis* (France)	77		7	Grey	1,864		
20	Needham^	74		8	Cordiant† (fka S&S) (UK)	1,175		
21	William Esty^	67			Bates		728	27
22	Wells Rich Greene	65		9	Hakuhodo (Japan)	874		
23	Kenyon & Eckhardt^	63		10	Asatsu-DK (Japan)	395		
24	Bozell & Jacobs*	63		11	TMP Worldwide	359		
25	Daiko (Japan)	59		12	Tokyu Agency (Japan)	204		
				13	Daiko Advertising (Japan)	203		
				14	Maxxcom (Canada)	177		
				15	Cheil Communications (SK)	142		
				16	Doner	114		
				17	Yomiko Advertsing (Japan)	102		
				18	Cossette (Canada)	95		
				19	Clemenger (Australia)	91		
				20	Rubin Postaer	90		
				21	Panoramic Communications	86		
				22	Richards Group	85		
				23	Asahi Advertising (Japan)	84		
				24	Gerbig Snell/Weishemer	76		
				25	Bartle Bogle Hegarty (UK)	74		

Notes. Holding companies (HC) in italics. Indented names are major agency subsidiaries. Non-U.S.-based firms indicated by country in parentheses.

*Became a subsidiary of a HC. ^Acquired by a HC and merged into another large agency. †Cordiant is the successor to the Saatchi & Saatchi HC. It divested one of its two large agency subsidiaries in 1997 and thus does not qualify as an HC by the “duplicate large agencies” criteria.

(Silk and Berndt 1993). Furthermore, even firms operating at 50% of that threshold incurred less than a 5% cost disadvantage (Silk and Berndt 1995). Also, whereas operating across multiple advertising media generates substantial scope economies, most agencies operate in multiple media, thereby making these cost savings the norm rather than the exception (Silk and Berndt 1995). They conclude that “agencies of widely varying sizes are economically viable” (Silk and Berndt 1995). This leaves important aspects of the industry’s structure unex-

plained, including the persistence of many agencies that are much larger than the \$3 million threshold and the persistence of thousands of very small agencies that are apparently inefficient.

One clue to the nature of large firms and industry structure at the agency level is an oft-noted pattern of “size matching” between agencies and clients: Large agencies serve large clients, and small agencies serve small clients (Michell 1988; Schmalensee et al. 1983; Silk and Berndt 1993, 1995). This pattern is often taken

Table 2 Estimated Global C4 Concentration Ratios, 1961–2001

Unit of analysis	1961 (%)	1971 (%)	1981 (%)	1991 (%)	2001 (%)
Holding companies	11	11	16	24	38
Agencies	11	11	12	15	19

Note. See the online appendix for details on sources and method of calculation.

for granted but actually begs for an explanation because it is not necessarily the norm in more traditional industries (e.g., motor vehicles) where small buyers (e.g., consumers) are often served by the largest producers with the lowest costs, whereas smaller producers sell niche products to larger customers (e.g., buses, fire trucks). A complete explanation for size matching involves two parts: why large clients match with large agencies and why small clients match with small agencies.

Larger clients choose larger agencies because agency size signals an ability to service large, complex advertising campaigns (hereafter, “projects”). For example, Rothenberg (1994) describes Subaru’s search for a new ad agency and notes that the client

decided to limit the search to agencies with at least \$500 million in billings [a measure of agency size] ...[because] there aren’t that many ad shops in the United States that the industry itself deems capable of creating a new image for a car company ...[many agencies] were local or regional shops that had never handled anything larger than a small retail chain, or knew nothing about how to buy network television time.

The primary advantage for a larger agency (versus a smaller agency) in serving larger, more complex projects is a superior ability to coordinate multiple resources. The first resource is sheer capacity. A larger agency, with more employees integrated into an established organization structure, can bring a team of individuals to bear on a project more easily than a smaller agency that needs to hire additional employees. Second, and perhaps more importantly, larger projects typically entail broader scope. Projects that span multiple geographic markets require both local knowledge *in* each market (e.g., knowledge of local tastes and local media outlets) as well as coordination *across* those markets. Larger projects also often span multiple media channels (e.g., print, broadcast, direct mail), including more sophisticated media that require specialized expertise (e.g., network TV expertise, as in the Subaru example above).

In part, then, it is not the agency’s size per se that yields this coordination advantage, but an underlying geographic and service breadth that both facilitates the coordination advantage and also tends to make an agency larger. So larger agencies with broader scope are argued to have an advantage over smaller agencies in

serving larger clients with larger, more complex projects (Nachum 1999).

On the other hand, *small* agencies are assumed to be as or more competitive than large agencies in servicing *small* projects, where there is less need for coordination. Prices are not readily observable in this industry, but some industry participants indicated that small clients are charged higher prices by large agencies than by small agencies, because the greater scope and specialized personnel of the large agencies create higher costs. This is consistent with Silk and Berndt’s (1995) finding that larger agencies actually experience *dis*-economies of scope, incurring higher costs than they would if they participated in a narrower range of media. In other words, large agencies provide “gold-plated” service that small clients do not value.

Perhaps more importantly, industry participants assume that large agencies will provide less attention to small clients. Small clients do not expect to have the large agency’s senior people working on their project and expect less customized or less responsive service in general because their project is relatively less important to the large agency. As one client executive said, “[W]e didn’t want an agency that was so humongous—that would be bad because we would get no attention.” And an industry consultant said, “[T]here’s a concern that you’re not gonna get the ‘A’ team.”

At the agency level, then, the industry can be characterized as *vertically differentiated* (Shaked and Sutton 1982, Sutton 1991). In the generic vertical differentiation model, products can differ in their level of quality and customers have heterogeneous valuations of quality, so firms differentiate by providing higher or lower quality and serve different customer segments. The model can be applied to the advertising industry by specifying three particular conditions: (1) The relevant dimension of quality is the ability to coordinate large projects; (2) this coordination ability is related to an agency’s size; and (3) a client’s valuation of quality (i.e., its need for coordination) is linked to the size and scope of its advertising campaign and thus generally to the client’s size. This *size differentiation* model can explain size matching between agencies and clients and provides a rationale for large agencies, namely the coordination of large projects.¹

To lend credence to this hypothesis, it is useful to substantiate the size matching pattern. Although this pattern is generally taken as a given by industry participants and observers, it has not been corroborated empirically. Michell (1988) asserts this pattern to be true but provides only partial evidence, showing that the largest UK clients overwhelmingly choose agencies in the top two size quintiles. Schmalensee et al. (1983) divide agency revenue by number of accounts for 91 agencies and find that the average revenue per account increases with agency size.

To provide more direct evidence, I analyzed a database created by Pile and Company (an advertising search consultancy) that records the winning ad agency for “accounts in review” from 2001 through 2006. Accounts are the basic unit of demand in the industry (i.e., projects) and can represent the advertising campaign of a whole company, a division within a company, or just one product line. “Accounts in review” are accounts where a client is looking to hire an agency, either because the client is beginning its first advertising efforts or because it is dissatisfied with its existing agency. The database contains 2,285 accounts and includes the estimated annual spending of the account (i.e., project size), the winning agency, and the previous agency (where relevant).

Data on agency revenue were obtained from *Advertising Age*, which publishes an annual ranking of ad agencies. Revenue data are missing for 583 observations because some of the agencies in Pile’s “Accounts in Review” database did not appear in the *Advertising Age* rankings. The primary reason for exclusion from the *Advertising Age* rankings is that the agencies were very small. Omitting these observations may bias the results because it might overestimate the average size of agencies that win small projects. Therefore, in addition to running the analyses with these observations omitted, I also run them with agency revenue set to \$1 million for the missing data (\$1 million is essentially the cutoff for the *Advertising Age* rankings). All revenue data were adjusted for inflation.

Table 3 summarizes the analyses. The top half of Table 3 presents results from regressions of winning agency size on account size, first when missing revenue observations are omitted and then when missing observations are set to \$1 million. In both cases, the coefficient on account size is highly significant and positive, indicating that the size of a winning agency is increasing in the size of the account.

Table 3 Statistics on Agency Size/Account Size Relationships (2001–2006)

(A) Regression: $\ln(\text{Winning Agency Revenue})$ on $\ln(\text{Account Revenue})$					
Missing values	Coeff.	SE	t-stat	n	Adj. R^2
Omitted	0.447	0.036	12.29	1,741	0.079
Included at \$1 m	0.674	0.041	16.37	2,222	0.107
(B) Distance: (Agency size decile) – (Account size decile)					
Statistic	Mean.	SE	t-stat	n	
Winning agency distance	2.68	0.060		1,311	
Losing agency distance	2.95	0.063			
(Winner distance – loser distance)	–0.275	0.077	–3.51		

Source. Pile and company “Accounts in Review” database.

Then for half of the observations (1,311), we also know the size of the agency that previously served the account. The size matching pattern would suggest that when a client switches agencies, it is likely to switch to an agency that more closely matches it in relative size (or to an agency that is at least as close as the prior agency). To test this, I categorized each agency and account size value into its respective agency and account size decile. Then I calculated the distance between agency size and project size by taking the absolute value of the difference between account size decile and agency size decile. (For example, if a project fell into the 80th–90th decile of project size, it was coded 8. If an agency fell into the 60th–70th decile of agency size, it was coded 6. The distance of this project and this agency would be $2 = \text{abs}(6 - 8)$). As the bottom half of Table 3 shows, the average distance value for the new agencies is smaller than for the prior agencies (2.68 versus 2.95), and the average difference of (–0.275) is significantly different than zero (t -statistic of –3.51). These results are consistent with the expectation that projects will tend to move to agencies with closer fit in terms of relative size.

The size differentiation hypothesis helps to explain this size matching of projects and agencies. It does so by assuming an underlying mechanism of “scope matching”: that clients with diverse geographic and media scope seek agencies with the geographic and media “reach” to coordinate these projects. This mechanism is consistent with existing literature linking the expansion of ad agency scope to the expansion of clients’ advertising scope. West (1988) and Caves (1996) describe how large U.S. advertising agencies expanded internationally to follow their increasingly multinational large clients. And Silk and Berndt (2004) argue that ad agencies have diversified into marketing services as clients’ marketing spending has shifted increasingly towards these alternative media.

Thus to this study’s first question—What explains the persistence of large ad agencies?—this section proposes an answer: the ability to coordinate large, complex projects. As the next section argues, however, this argument seems insufficient to answer the paper’s second question: Why did the holding company phenomenon emerge after 1980?

A Theory of Advertising Holding Companies: Financial Intermediation

Industry observers have typically attributed the holding company phenomenon to three factors (either individually or in combination): mitigation of client conflicts, increased reach, and scale economies. Closer inspection suggests that although each of these factors has some role to play in explaining the nature and advantage of the holding companies, they do not provide a complete explanation of the phenomenon, particularly its historical timing.

As noted earlier, the holding companies' ownership of relatively autonomous yet duplicative large agency subsidiaries is tied to the industry's conflict norm, in that it allows a single corporation to serve competing clients. But by itself the conflict-mitigation argument leaves questions unanswered. First, we still need an explanation for how conflict mitigation confers an advantage on holding companies such that they have grown to dominate the industry, profitably absorbing most large agencies. Second, the conflict norm existed long before the 1980s, so why did the holding company solution not appear until then?

Greater reach and scale economies are most often suggested as the holding companies' main source of advantage relative to independent large agencies (Elliott 2002, Sanders 2002). The reach argument for holding companies is essentially an extension of the size differentiation model: that the holding companies offer greater geographic and service breadth than do independent large agencies, which helps to attract large clients with projects of broad scope. But this reach argument is undermined by two issues.

First, it is not clear that the holding companies offer greater reach than do individual large agencies, which all have offices around the globe and a range of marketing services subsidiaries. In terms of geographic scope, for example, Table 1 shows each major subsidiary agency's share of revenue from the United States in 2001. It indicates that most were quite geographically diversified, at least between the United States and the rest of the world. Second, even if the combination of subsidiaries within a holding company offers greater scope at some margin (such as in newer marketing services), the internal autonomy presumably hinders the ability to coordinate that greater scope. In fact, doubts about the ability to coordinate across subsidiaries have been expressed by holding company insiders and industry consultants (personal interviews) and in trade press reports (Khermouch 2003).

Given that minimum efficient scale for agencies is quite low (Silk and Berndt 1995), it is hard to imagine substantial scale economies at the holding company level. However, Arzaghi et al. (2008) offer an argument for how conflict mitigation by holding companies may yield a scale-based cost advantage. Whereas large agency subsidiaries are kept autonomous to serve competing clients, their media buying operations have been pulled out and consolidated into a single subsidiary. Clients have been willing to suppress conflict norms for media buying-only operations, so the consolidated media operations can serve competing clients and thus operate at larger scale than they could within large agencies. Arzaghi et al. (2008) argue that there may be scale-based cost advantages in media buying, particularly in negotiating volume discounts from media companies, so this

"unbundling" of media buying may yield a cost advantage vis-à-vis independent agencies.

That said, the evidence for this scale-based cost advantage is indirect and indicates that its magnitude may be insufficient to explain the holding companies' rapid and substantial rise. For example, Silk and Berndt (2004) find positive economies of scale and scope across holding companies of different sizes but characterize them as "very slight economies of scale" and "small scope economies... of one to two percent." This seems consistent with attestations by some holding company executives that scale economies are not a critical source of advantage. For example, after a large, global agency was acquired by a holding company, its CEO said, "The cost benefits are uninteresting... we took out all of the public company costs, and... we took out some of the IT costs. That was probably the extent of it" (personal interview).

So the holding companies may enjoy slightly lower costs than independent large agencies, which may help explain this phenomenon. However, the ambiguity about and small magnitude of this potential advantage suggest that it is unlikely to account for the full magnitude of the phenomenon. As I argue below, another key factor in explaining the holding companies is their role as financial intermediaries, a factor that also helps explain the historical timing of the phenomenon.

Financial Intermediation

I argue that a key advantage possessed by holding companies is access to capital and that this allows them to add value as financial intermediaries. The holding companies' diversification across large clients and their combination of financial expertise with advertising expertise mitigate the high transaction costs between outside investors and ad agency owners. With this advantageous access to outside capital, they are able to acquire an agency at a price that is lower than the agency's true value (e.g., the NPV of the agency's future earnings stream) yet greater than what the agency would be able to obtain via alternate transactions. In this theory, the holding companies function as an intermediary institution where input markets are highly imperfect, a role that is similar to that posited for business groups in emerging economies (Ghemawat and Khanna 1998) and for acquisitive conglomerates in the 1960s (Hubbard and Palia 1999). In this section, I first outline the intermediation opportunity: why agencies need capital yet face significant constraints in obtaining it. Then I suggest *how* the holding companies mitigate those constraints.

The Intermediation Opportunity

As noted earlier, the production of advertising services does not demand substantial sunk investment capital. However, at some point, agency owners still need infusions of capital to provide *liquidity and diversification*—i.e., to "cash out" their ownership stakes, particularly as

they retire (Ritter and Welch 2002). Yet most potential capital providers face transaction costs—including valuation difficulties, risk aversion, wealth constraints, and moral hazard—that force owners to accept a substantial discount off the full value of their shares.

One traditional source of capital is internal: departing owners sell their shares to remaining employees. But internal transfers of ownership often undervalue the shares for two reasons. First, the difficulty of valuing privately held shares, which are not traded in a liquid market, often leads to the establishment of fixed and relatively objective valuation benchmarks (Dow 2003). Ad agencies have long faced this problem (Groesbeck 1962) and have traditionally resorted to transferring shares between employees at book value (*Advertising Age* 1963b). Book value includes the agency's few "hard" assets, such as cash, receivables, and office equipment (i.e., the liquidation value), but excludes the substantial "soft" assets, such as the firm's reputation, client relationships, and collective human capital. In other words, book value substantially undervalues the shares. Second, according to finance theory, employees will undervalue the shares because they are often wealth-constrained² and because they may be especially risk-averse because putting both their human and financial capital into one firm reduces their overall diversification (Dow and Putterman 2000).

A second source of capital is outside investors. But although well-diversified and not wealth-constrained, they will undervalue the shares because of serious moral hazard problems. Investors will be concerned that their investment is highly vulnerable to the departure of the firm's main assets, its employees and client relationships (à la Maurice Saatchi). This concern is particularly problematic when the capital is meant to cash out the owners because investors are paying for the very human capital that is leaving.

A third source of liquidity is a larger agency, which has two (potential) valuation advantages vis-à-vis outside investors. First, it can mitigate the moral hazard costs because its industry-specific expertise improves monitoring of the acquired operations, and it has relatively low search costs in finding personnel to replace departing employees. Second, another agency may possess complementary scope, such as a different geographic location or expertise. Thus mergers have been a common feature throughout the industry's history as a mechanism for buyers to expand their service scope and for sellers to cash out. Private acquirors' shares are subject to the same valuation constraints, so they are not in a position to cash out the owners of the acquired agencies at high valuations. In other words, internal transfers and mergers with other agencies were the traditional means by which agency owners cashed out, as in other professional services. But these owners were generally accepting prices substantially lower than the full value of the agency's future earnings stream.

How Holding Companies Intermediate

I hypothesize that the holding companies are able to mitigate these transaction costs of external finance by providing two things: *diversification of client risk* and *financial expertise*. By mitigating client conflict the holding companies offer some diversification across large clients. Even for the largest agencies, their largest client usually represents from 5% to 15% of total revenue and the ten largest clients represent 30% to 65% of total revenue (Bojanek 1980). If a holding company's subsidiaries can serve several competing large clients or if there is a chance that a large client that is unsatisfied with one agency could still be won by a sibling agency, the risk of losing a significant percentage of revenue all at once is reduced. A trade association executive suggested that holding companies' value came from this ability to "keep clients in the fold, even if they are disaffected with one agency."

This argument is consistent with the findings from interviews with the senior managers of a large global diversified agency that was acquired by a holding company. Senior managers indicated that the primary rationale for selling the firm was to provide shareholders—in particular, the senior managers with large stock holdings—with liquidity and diversification. A vice president admitted that one of the primary rationales was that the acquisition allowed many senior managers to cash in their restricted shares (liquidity). And the CEO repeatedly mentioned "risk reduction" (diversification):

Why is it an advantage to you to be part of a larger holding company? It's partly risk reduction If you look at [subsidiary 1] and [subsidiary 2] and [subsidiary 3] and all the other parts of [the holding company], one part can be down, but then the other parts can be up, and I think, as an investor, as a shareholder, you've diversified your risk.

In particular, the CEO was concerned about losing the firm's largest client to a holding company whose subsidiaries had significant business with the same client. In other words, he was seeking diversification across large clients, hoping to mitigate the potential loss of that client.

A second source of holding company value seems to come from financial expertise. Much of this expertise lies in the installation of financial systems and management practices. Many observers indicate that private ad agencies are often run in unsophisticated ways (Bower 1997, Fendley 1996, Millman 1988). Two case studies of advertising holding companies noted that a key intervention at acquired agencies was the installation of more extensive and sophisticated control systems (Bower 1997, Collis 1995). These practices may improve the new subsidiary's earnings stream, making

the acquisition more profitable. And by making operations less volatile and less dependent on specific individuals, such processes and systems may also reduce discounting by outside investors. This argument is similar to the argument made regarding conglomerates (Baker 1992).

Another aspect of the holding companies' financial expertise is knowledge of the norms for interacting with the capital markets. An industry consultant suggested that "holding companies are about presenting a face to the financial community," and a case study indicated that "the concept of WPP was primarily that of a 'financial brand,' a bland holding company name to which Wall Street and the City of London could relate" (Bower 1997).

In addition to client diversification and financial expertise, a third critical ingredient for this intermediation role seems to be expertise in the advertising industry itself. Because the financial intermediation argument invokes comparisons to business groups and conglomerates, which are marked by their broad diversification, one might argue that the intermediation role of the holding companies could have been performed by publicly traded firms outside of the advertising industry. However, since 1960, there have been only three occurrences of nonadvertising firms acquiring ad agencies (involving six agencies in total), and none of them persisted more than a decade: The acquired agencies were either sold back to their managers or shut down. Thus nonadvertising firms have not found it advantageous to maintain ownership of advertising agencies, suggesting the importance and tacit nature of advertising-specific capabilities. Holding companies seem to rely on *combining* advertising and financial expertise.

The argument, then, is that holding companies' large client diversification and financial expertise reduces the extent to which investors discount their shares. With this lower cost of capital, the holding companies can acquire independent agencies profitably: below the price of the holding company's shares but above the price that independent agency owners can achieve elsewhere. This conclusion is borne out by combining scattered pieces of evidence. First, trade press reports suggest that around 2002 holding companies acquired private agencies at prices ranging from 5 to 6.5 times operating profit (O'Connell 2002, Vranica 2003). Second, in a sample of 24 publicly traded ad agencies (between 1965 and 2007), the median ratio of *book value* to operating profit was 3.08, implying that holding companies were paying premiums of at least 62% ($5/3.08 = 1.62$) over book value (the standard price for internal transfers). Third, the median ratio of holding companies' market capitalization to their imputed acquisition value (taken as 5 times EBIT) is 2.8, implying that the holding companies are acquiring agencies at about a 65% discount to their own valuations.

But the demand for such intermediation to help agency owners cash out has always existed. The question is why was this intermediation not supplied until the mid-1980s? The next section offers an explanation for this historical timing.

The Financial Evolution of the Advertising Industry

This section argues that the historical timing of the holding company phenomenon is linked to the evolution of the industry's access to equity markets, because access to outside equity is critical to the intermediation function. This section tells this history in four stages. First, I recount the experience of the first holding company, Interpublic, for clues to why the phenomenon did *not* spread in the early 1960s. Second, I describe the emergence and initial decline of public ownership in the industry. Third and fourth, I describe the role played by the UK agency Saatchi & Saatchi in attracting public equity and catalyzing the emergence of several holding companies in the mid-1980s.

Interpublic: A Holding Company Before Its Time?

In 1961 McCann-Erickson, a large U.S. advertising agency, formed a holding company, Interpublic, in an attempt to circumvent the conflict norm (*Advertising Age* 1963a, Millman 1988). Upon its founding, Interpublic began an acquisition spree, buying agencies and marketing services firms in the United States and overseas. However, Interpublic had two weaknesses in the pursuit of its strategy. First, it was privately held, as were all agencies until the early 1960s. This constrained its ability to intermediate in several ways. Its illiquid, book-value-based shares were not a highly valued currency, so its largest acquisitions were purchased in cash and financed by debt. Also, the firm was obligated to buy back shares of retiring or departing executives, purchases which were also financed with debt. The second weakness was its own lax management. Its CEO, Marion Harper, was a legendary figure in the advertising realm but paid little attention to cost controls; one historian describes him as "a consummate ad man but a financial neophyte" (Millman 1988). The combination of high debt and spendthrift management led to a deep financial crisis. In 1967, lenders forced the ouster of CEO Harper and acquisitions were curtailed until the firm's finances were restructured during the early 1970s (Millman 1988).

The Interpublic experience highlights the importance of both access to equity markets and financial expertise to the intermediation role. Without being able to arbitrage the differential between public and private valuations, the holding company could not profitably sustain large acquisitions.

The Rise and Fall of Public Agencies (1962–1981)

For the first century of the advertising industry's history, all its firms were privately held,³ for two reasons. First, the industry trade association imposed on its members a prohibition against having owners who were not involved in agency management, which effectively prohibited outside investors. The restriction was intended to prevent conflicts of interest that might compromise an agency's ability to serve clients fairly and in this way emulated codes of ethics in other professions (Nanda 2002). Second, advertising was perceived by investors as an unacceptably risky business (consistent with the transaction costs described earlier), vulnerable to the departure of its key assets of personnel and clients. One industry historian writes, "The volatility of the ad agency business—in which a company's fortune could quickly sink if it was deserted by a major account—led analysts and investors to believe that the agencies were not a sound bet" (Millman 1988).

Nonetheless, 21 U.S. advertising agencies went public from 1962 to 1973. The wave was initiated by a two-year old agency that had not joined the industry association and was thereby unaffected by the ownership restrictions. A year later the industry association repealed the restrictions under pressure from member agencies (*Advertising Age* 1963b, *Business Week* 1964). Investor willingness to buy agency equity is attributable to optimistic speculation in the midst of a buoyant stock market. Agency IPOs began near the end of one "hot" IPO market from 1960 to 1962 (Ritter 1998) and peaked during an even hotter IPO market between 1968 and 1972. Contemporary trade press indicates that

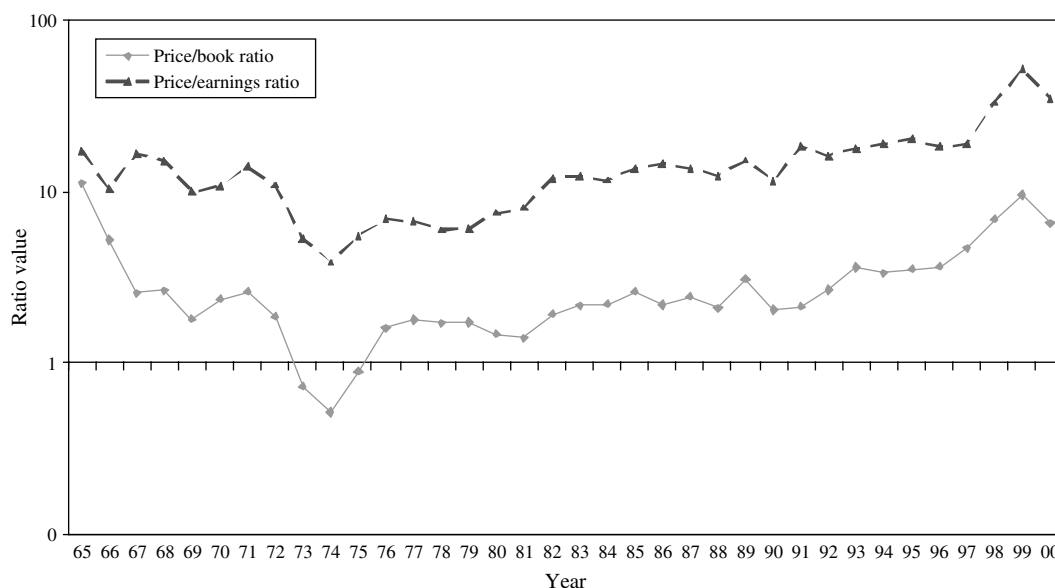
the investment came mostly from speculative investors (*Printer's Ink* 1964).

But if ad agencies accessed outside equity in the 1960s, why did the holding company phenomenon not emerge at that time (aside from Interpublic)? The answer is that agency stock prices collapsed just as the IPO wave was ending, as part of a larger slump in the stock market and the national economy in the early 1970s. Figure 1, which plots the median price-to-book and price-to-earnings ratios of large U.S. ad agencies (and holding companies) from 1965 to 2000, shows that most agency stocks traded *below* their book value by 1974, meaning they were worth *less* than if they were privately held. This eliminated any potential intermediating advantage of public ownership. West (1988) reports similar anecdotes about UK ad agencies that went public in the same period. As the industry's growth improved in the second half of the 1970s, agency stock values went back up (see Figure 1). But the real change came in the early 1980s when a brash UK agency combined advertising expertise, financial expertise, and access to public equity to restructure the industry.

Saatchi & Saatchi (1970–1986)

Saatchi & Saatchi (hereafter "S&S"), founded in London in 1970 by brothers Charles and Maurice Saatchi, was financially aggressive and sophisticated from early on. In 1974, S&S went public through a reverse takeover of a crematorium. By 1979, at only nine years old, it had become the largest agency in the UK, largely through acquisitions. In 1983, the agency acquired a listing on

Figure 1 Median Price-to-Earnings and Price-to-Book Ratios, Seven Large U.S. Advertising Firms, 1965–2000



Notes. Solid line plots median ratio of stock price to book value. Dashed line plots median ratio of stock price to net income per share. Logarithmic y-axis scale. I use the term "firms" to include both agencies and holding companies. Prior to 1971, the public firms were all agencies. After 1991, the sample includes both agencies and holding companies. Data from *Compustat*.

the NYSE, only the third British company to do so (Collis 1995, Fendley 1996, Millman 1988).

Beginning in 1982, S&S entered the U.S. market with several acquisitions of unprecedented scale. It debuted with the acquisition of Compton, a top 20 agency four times larger than S&S itself. The coup de grace came in April 1986, when S&S acquired the second largest U.S. agency, Ted Bates. The price paid for Bates was more than seven times higher than in any previous acquisition in the industry. The Bates acquisition turned S&S into the world's largest advertising firm (at only 16 years old).

Part of S&S's growth can be tied to the general exuberance of the UK capital markets in the early 1980s, which fueled foreign acquisitions by a range of UK companies (West 1988). But S&S also employed financing practices relatively new to the advertising industry, two of which are often noted. First, S&S typically made half of the acquisition price payable over several years and contingent on the target's future performance (a practice known as an earn-out). Second, although S&S's acquisitions were typically in cash, they were not financed by debt. Rather, the company issued new equity in the form of "rights issues," a practice more popular in the UK than in the United States, which involved offering existing shareholders the right to buy new shares at discounted prices (Fendley 1996, Millman 1988, West 1988). In addition, the agency developed sophisticated control systems that it imposed quickly on acquired agencies (Collis 1995, Millman 1988). In sum, S&S was pioneering the intermediary function: using its public listing, financial expertise, and advertising expertise to acquire other agencies like never before in the advertising industry.

The Rise of Holding Companies (1986–2000)

In making its large acquisitions, S&S faced increasingly difficult client conflict issues and so adopted a holding company structure to keep large subsidiaries independent. Thus S&S became the industry's second large holding company, after Interpublic. But where Interpublic had little effect on the industry's structure, S&S's rise spurred the creation of two other global holding companies.

Simultaneous with S&S's acquisition of Bates in 1986, three large U.S. agencies (BBDO, Doyle Dane Bernbach, and Needham Harper Steers), hoping to keep up with S&S, combined themselves under a single holding company christened Omnicom. A fourth holding company was formed by Martin Sorrell, S&S's finance director in the early 1980s often credited with much of S&S's financial expertise (Bower 1997, Collis 1995, Fendley 1996, Millman 1988). Sorrell left S&S in 1985 and acquired a shopping cart producer, WPP, to use its public listing as an acquisition vehicle. WPP then acquired two of the largest U.S. agencies, J. Walter Thompson (1987)

and Ogilvy & Mather (1989). Then in the late 1990s, two large French advertising firms (Publicis and Havas) each acquired a number of global agencies and thereby also became major holding companies.

Interestingly, as the capital market boom of the 1980s ended, S&S fell into a deep financial crisis. Ultimately, this led to the Maurice Saatchi ouster and then the breakup of the holding company as one of its two large agencies was spun out. In fact, S&S's downfall further illustrates the financial intermediation hypothesis because its troubles arguably began when Martin Sorrell left and the Saatchi brothers strayed from the financial practices that took them to the top. They paid more than twice what Sorrell recommend for Ted Bates and paid most of it up front, rather than in earn-outs (Millman 1988). They increasingly relied on debt instead of equity. And they diversified beyond their advertising expertise into management consulting (and flirted with commercial banking) (Collis 1995). This situation reiterates the holding company's essential ingredients for adding value as a financial intermediary: advertising expertise, financial expertise, and public equity.

In summary, I am arguing that the financial intermediation opportunity was not available until agencies enjoyed fully valued public equity after 1981 and was not exploited until S&S combined the essential ingredients and catalyzed the industry's consolidation.

Beyond Advertising: Human Capital Intensive Professional Services

To what extent do the concepts developed here apply beyond advertising to other human capital intensive professional services? A growing literature on professional service firms (for overviews, see Greenwood et al. 2006, Lorsch and Tierney 2002, Lowendahl 2000) seeks to identify how their human capital intensity affects their organization and management. However, much of this research focuses on the internal management of individual firms. Research on the nature of size-related advantages or industry structure in professional services is extremely limited.

That said, in this section, I show how the size differentiation and financial intermediation hypotheses are consistent with—and even complement and extend—research findings in other professional services, suggesting that the hypotheses have more relevance beyond advertising. I focus on three core professional services—accounting, law, and management consulting (as identified in other work by this author). I first discuss the relevance of the size differentiation hypothesis to research on law and accounting firms (there is essentially no literature on the nature of firm size in management consulting). Then I discuss the applicability of the financial intermediation hypothesis, despite the absence of holding companies in each of these industries.

Size Differentiation

Law. The few studies of law firms that address firm size and scope are generally consistent with the size differentiation hypothesis. Galanter and Palay's (1990) historical study argues that large U.S. law firms emerged at the turn of the 20th century to serve the large private corporations that had emerged in prior decades, implying that the *raison d'être* of large firms is to serve large clients. And Spar (1997) validates the "scope matching" aspect of the hypothesis, in showing that large law firms expanded internationally to coordinate work across geographies for their multinational clients.

Garicano and Hubbard (2007, 2008) provide perhaps the most sophisticated treatment of law firms and the structure of the legal industry, both in terms of theory and data. Their research focuses on the organizational implications of human capital intensity in law firms, particularly on variations in the extent of lawyer specialization, and do not address the *size* of law firms directly. However, from their arguments and findings we can deduce an explanation for large law firms. Essentially, they argue and show that law firms with greater hierarchy and greater service scope are better able to serve clients with more complex and diverse projects because they contain the most specialized lawyers and can coordinate across those specialists. If we make the plausible assumption that hierarchy and scope are correlated with firm size, this result is very consistent with the size differentiation argument: The advantage accruing to large law firms is not low costs from scale and scope economies but the ability to coordinate complex projects.

And in fact the size differentiation hypothesis complements and extends Garicano and Hubbard's (2007, 2009) research by connecting it to a larger framework for explaining industry structure. It links their concepts of project complexity and benefits of "knowledge sharing" to both client size and provider size, which in turn links their concepts to overall industry structure, in terms of the size distribution of firms.

Accounting. More research on the accounting industry is relevant to the issues of large firms and industry structure, almost all of which appears in accounting journals. The primary focus of this literature is on understanding the cost structure of auditing by identifying the determinants of fees paid by clients (the "audit fee" literature). Nonetheless, many elements of the size differentiation story appear in this literature.

First, it is generally assumed that there is some size matching, with large (small) auditors serving large (small) clients, though there are only a few instances of actual evidence (Doogar and Easley 1998, Han 1994). The scope matching that underlies size matching is also present: Rose and Hinings (1999) argue that auditors

have internationalized to serve their increasingly multinational clients. Second, one of the central findings in the audit fee literature is that large auditors (e.g., the Big 8, then Big 6, now Big 4) charge a significant price *premium* relative to small auditors (rather than discounts driven by scale economies), and the standard explanation is that large auditors offer higher quality audits (e.g., see Craswell et al. 1995, Ireland and Lennox 2002). But little explanation is offered for *how* large firms generate "higher quality" and why large clients might have greater demand for high quality. In this regard, the size differentiation hypothesis not only is consistent with this finding, but offers a theoretical explanation for it: "Quality" means specifically the ability to service large, complex projects through better coordination of functional and geographic diversity.

Several other accounting industry findings further suggest the applicability of the size differentiation hypothesis. Of particular interest is an ancillary finding in Ireland and Lennox (2002) that small auditors charge *higher* premiums for serving geographically diverse clients than do large auditors. In other words, large auditors have a cost advantage specifically in serving large complex projects. Finally, Sullivan (2002) finds that after a merger of large auditors, the combined firm increased its rate of winning the largest clients but *decreased* its rate of winning medium and small clients. This is yet more evidence that large professional service firms have advantages in serving large clients but perhaps *disadvantages* in serving small clients.

Taken together, the evidence from the law and accounting industries appears quite consistent with the size differentiation hypothesis. It also illustrates how the hypothesis adds conceptual value by synthesizing a variety of findings into a coherent theory that helps explain both the nature of firm-level advantages and industry-level structure.

Financial Intermediation

In comparison with size differentiation, the financial intermediation hypothesis' relevance to accounting, law, and consulting is less obvious, because the holding company phenomenon is not a prominent feature in any of these industries. However, this absence is consistent with the fact that these other industries fail to meet key scope conditions of the financial intermediation theory of the holding companies. The hypothesis of holding companies as financial intermediaries rests not only on the assumption of human capital intensity but also on two additional conditions: openness to outside ownership and client conflict norms. Prohibitions against outside ownership significantly hinder the ability to intermediate because intermediation requires transferring ownership from professional partners to outside investors. Client conflict norms increase firms' vulnerability to the loss of a major client by making it harder to serve multiple

large clients. This vulnerability reduces the willingness of outsiders to invest. Where conflict norms are weaker, firms may be less dependent on individual clients and thus may be able to access outside capital directly (without an intermediary like a holding company). Here, I discuss these scope conditions in accounting, law, and consulting.

Law and Accounting. Prohibitions on outside ownership remain in place for accounting firms that do audit work (all the major accounting firms) and for law firms. These prohibitions effectively preclude the holding company outcome. In accounting, however, the removal of ownership restrictions might not open the door to holding companies anyway because conflict norms are far less restrictive than in advertising. Thus the largest accounting firms already enjoy significant diversification across large clients, eliminating the need for the holding company solution. The legal industry, however, has much stronger client conflict issues than does auditing. (For example, financially troubled large firm Heller Ehrman recently disbanded after mergers with two other firms were scrapped because of too many client conflicts (Young 2008).) So in the absence of ownership prohibitions, consolidation within a holding company structure might be a value-adding arrangement. Thus, recent deregulation of law firm ownership in other countries (von Nordenflycht 2009) may soon offer a test of this prediction.

Management Consulting. As in advertising, the management consulting industry association once prohibited outside ownership but lifted the restrictions in the 1960s. Consultancies have thus long been allowed to access outside capital and many have gone public (or been acquired by a public parent), including most of the industry's largest firms, the IT consultancies. But like accounting firms, IT consultancies do not face client conflict norms, can therefore serve competing large clients, and thus fall outside the hypothesized boundary conditions for holding companies.

That said, the strategy consulting segment of the industry (e.g., McKinsey, BCG, Bain) seems to pose a challenge to the financial intermediation hypothesis because most of the largest competitors have stayed private rather than avail themselves of the liquidity and diversification benefits of going public. One way to interpret this challenge within the framework of the financial intermediation hypothesis is in terms of differences in the level of human capital intensity. Collis (1995), for instance, argues that consultancies are even more dependent on human capital than ad agencies because companies' more constant need for advertising may make relationships with ad agencies stickier than those with consultancies. Perhaps a greater level of human capital intensity in consulting creates transaction costs of external finance that are simply too high to be overcome,

even by some type of intermediary. This would imply another boundary condition for the financial intermediation hypothesis: a maximum level of human capital intensity (or minimum level of firm-specific alienable assets), above which an intermediation solution (whether it be a holding company or something else) is not feasible.

Of course, an alternative interpretation of the absence of holding companies and public corporations in general in strategy consulting is that the intermediation opportunity has not yet been appropriately exploited. At the very least, the issue certainly points to the need for more research on the organizational history and industrial organization of management consulting.

In the end, the holding company phenomenon may be idiosyncratic to the advertising industry, arising under a narrow set of boundary conditions. But to take a step back, the broader insight of the financial intermediation hypothesis is *not* that human capital intensive industries will be organized specifically into holding companies. Rather, it is that outside capital may be very valuable to human capital intensive firms and that this may lead to organizational innovations that reduce the transaction costs between investors and professional partners—and that these innovations may collaterally shape industry structure. A common view regarding professional services is that because there is a low need for sunk investments, outside capital is of little value (Dow and Putterman 2000, Hansmann 1996, Jensen and Meckling 1979). In contrast, the financial intermediation hypothesis suggests that external capital can be very valuable in environments of high human capital intensity because outside capital is valuable not only for financing investment but also for providing liquidity and diversification (Ritter and Welch 2002). This latent value of outside capital presents an opportunity (the financial intermediation opportunity) for organizational innovations that reduce the transaction costs of outside ownership imposed by human capital intensity. In the advertising industry, the holding companies are one such innovation. But other human capital intensive contexts might yield alternative innovations. For example, in the accounting industry there have been recent attempts to create new organizational arrangements that get around the ownership restrictions in order to connect outside investors with accounting firm partners. A few publicly traded firms, known as “consolidators,” have been forming alliances with medium-sized accounting partnerships in which the consolidator acquires a partnership's alienable assets and then contracts with the partnership to provide services to clients jointly (Krotman and Sinkin 2000). Although this is not the same solution as the holding companies, it seems to reflect a similar intent: organizational innovation to intermediate between outside investors and professional partners to provide the latter with liquidity and diversification. And as with the

advertising holding companies, this innovation would have a consolidating effect on industry structure. I discuss these points further in the next section.

Discussion

Theorists have suggested that in human capital intensive settings, firm size conveys few advantages and may even be disadvantageous (Lorsch and Tierney 2002, Lowendahl 2000, Starbuck 1992) and that firms will be flimsy because the owners of the assets can easily leave to start new firms (Hart 1995, Nachum 1999). Yet the advertising industry, quintessentially human capital intensive, not only features long-lived large firms but has seen the rise of a few holding companies that have acquired many of the world's large ad agencies. The limited empirical research on firm size and industry structure in professional services does not shed much light on these empirical realities.

So this study analyzes the advertising industry through a range of sources to develop hypotheses about the advantages accruing to large agencies and holding companies, with the intent of gaining insights into the nature of large firms in human capital intensive industries. I hypothesize that large advertising agencies are advantaged in coordinating large, complex projects (the size differentiation hypothesis) and that a key advantage of holding companies is mitigating the considerable transaction costs of external finance (the financial intermediation hypothesis).

Although these hypotheses stem from research in one industry, I also show that they are not only consistent with but synthesize and extend a disparate set of facts and findings regarding law and accounting firms. For example, the size differentiation hypothesis explains more fully the oft-noted size- and scope-matching between professional service firms and their clients. It also links those patterns to previously unrelated findings on fee differentials across accounting firms (Craswell et al. 1995, Ireland and Lennox 2002) and law firm specialization and organizational structure (Garicano and Hubbard 2007, 2008)—and ties them all to a larger framework that helps explain industry structure.

These comparisons suggest that the hypotheses are relevant to a broader set of professional services. In fact, the boundary conditions for the hypotheses can be more clearly specified, starting with the basic condition of human capital intensity. In addition, size differentiation should be most relevant where output is customized and demand includes large, complex projects, especially where complexity arises from broad product and geographic scope. The financial intermediation hypothesis should be broadly relevant where human capital intensity makes external finance seem very risky but outside ownership is not prohibited by professional codes of

conduct. The particular solution of holding companies should be most relevant where client conflict norms are strong and pervasive.

The hypotheses developed here have important implications for our understanding of human capital intensive industries. They suggest several revisions to a number of conventional assumptions, including assumptions about the nature of firm size, the value of capital, the nature of demand, and the nature of assets in human capital intensive settings, each of which I discuss here along with suggested future research questions.

Firm Size and Industry Structure. The study indicates that even if human capital intensive firms' employees and clients are highly mobile, the firms themselves are not necessarily flimsy and vulnerable to dissolution because there are potential advantages that accrue to firm size and offset the vulnerability. Furthermore, the study suggests that the nature of large firms' advantage in human capital intensive settings is different from the scale and scope economies attributed to firm size in more traditional industries. Large professional service firms are cost advantaged not in general but only in the servicing of large, complex projects. And so instead of being characterized by large firms selling low-priced standardized goods to large and small clients, with small firms selling specialized products, these industries are characterized by large firms selling specialized services primarily to large clients, with small firms selling higher responsiveness (at lower cost) to small clients. Future research could test this idea by looking at the distribution of client size across provider size in various professional services.

Liquidity Value of External Capital. A standard assumption is that human capital intensive firms have few sunk investments to make (e.g., in equipment, advertising, or R&D) and therefore a low need for outside capital. For example, to explain the prevalence of the employee-owned partnership model in professional services, economic theorists typically suggest that the low value of outside capital allows firms to allocate ownership entirely to employees to maximize their incentives (Dow and Putterman 2000, Hansmann 1996, Jensen and Meckling 1979).

The financial intermediation hypothesis suggests instead that even where investment needs are low, external finance can be very valuable for providing liquidity and diversification. This has several further implications. First, it suggests that the employee-owned professional partnership may result not from a choice to maximize employee incentives but from constraints: high transaction costs of outside ownership (and professional prohibitions on outside ownership). Second, it suggests that there may be opportunities for organizational innovations that mitigate these costs and connect "human capitalists" with diversified investors. I argue that holding

companies were such an innovation in advertising. But the innovations may take other forms in other industries, such as the consolidator movement in the accounting industry. Another example is venture capital, whose distinctive organizational features have been theorized as mechanisms for intensive monitoring in the face of significant threats of investor expropriation (Lerner 1995)—which is to say, as organizational innovations to mitigate the high transaction costs of external finance.

Third, organizational innovations that provide intermediation may lead to more concentrated industry structures. The holding company solution has led to very large firms and industry consolidation in advertising. The consolidator movement in the accounting industry would also have the effect of increasing industry concentration. Other organizational structures that have been theorized to function primarily as financial intermediaries—business groups (Ghemawat and Khanna 1998) and diversified conglomerates (Hubbard and Palia 1999)—also result in very large firms. So it may be that organizational solutions to the problem of outside investment in human capital intensive industries may fuel industry concentration, independent of any changes in the value of sunk costs, such as R&D investment, which are the focus of much of the literature on industry evolution (Klepper 1996, Sutton 1991).

This insight suggests future research on the nature and evolution of ownership across other professional services. Do employee-owned partnerships dominate in human capital intensive settings generally—or as suggested here, only where there are prohibitions against outside ownership? When ownership restrictions are lifted, do intermediation innovations emerge? If not, why not? And where outside ownership and an intermediary solution arise, does increased industry concentration follow?

Size Distribution of Units of Demand. Another implicit assumption in the stylized view of professional services is that demand comes in the form of small projects that can be serviced by a single individual or a small team (Starbuck 1992). By contrast, the argument advanced here recognizes and incorporates the existence of large, complex projects, the coordination of which provides a *raison d'être* for large firms. This insight in turn suggests that the size distribution of units of demand—and the extent to which project complexity arises from broad scope—may be important determinants of industry structure in professional services selling customized, project-based output. Future research should compare the size distribution of projects with the size distribution of firms across different professional services to determine whether fewer, larger projects imply more concentrated industry structure.

Organization as Asset. A third assumption regarding human capital intensity is that all the productive assets are linked to individuals' skills or client relationships, or both, and are thus inalienable. However, in the size differentiation hypothesis, the coordination advantage held by larger firms is based not just on individual human capital but also on the collective organization of those individuals. Large firms are assumed to coordinate individuals across multiple services and geographies more efficiently than an alliance or consortium of smaller specialized firms. Underlying this argument is the notion that an existing organization—an established set of personnel, positions, and standardized interactions—is an important asset. In this way, this study is consistent with a capabilities-based view of organizations as sets of routines (Nelson and Winter 1982) and supports recent efforts in organizational economics to build theories of the firm on the notion of organization as a key firm-specific asset (Mailath and Postlewaite 1990, Rajan and Zingales 1998).

This idea helps reconcile the persistence of large professional service firms with the Saatchi-like anecdotes of frequent defections of key personnel and their clients from such firms. It predicts that such defections will occur in two ways: individuals starting up their own firms will take small or perhaps medium-sized clients with lower coordination needs, whereas individuals that take large clients will join a competing large firm because they still need a large organization to service the account. Future research on the destinations of defecting personnel and clients could test this prediction.

This study, then, offers several challenges and corrections to conventional assumptions regarding the organizational implications of human capital intensity. Validating and refining these hypotheses requires more systematic comparisons of firm size and industry structure across multiple human capital intensive professional services.

Electronic Companion

An electronic companion to this paper is available on the *Organization Science* website (<http://orgsci.pubs.informs.org/ecompanion.html>).

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Endnotes

¹There are other dimensions of differentiation in this industry as well, such as the level of creativity and the level of specialization in certain types of media or customer segments. However, these are less directly related to the size of ad agencies and the size matching of agencies and clients.

²Consistent with this notion, an executive of a private agency noted, “[L]ike many large agencies, our stock is now reaching a price which is too high for the young executive coming up through the ranks to buy” (*Printer’s Ink* 1962).

³One agency floated as early as 1929 (Albert Frank–Guenther Law), to pay off the mortgage on its office building, but it was privatized soon after.

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