# COMPETITION FOR EXTERNAL RESOURCES, ENTRY ORDER, AND THE STOCK MARKET REACTION TO ALLIANCES AND ACQUISITIONS

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ABSTRACT: We analyze how entry order in a new field influences the stock market reaction to strategic alliances and acquisitions aimed at expanding firm boundaries. We argue that alliances would be more valued by investors at the early stages of a process of convergence between two markets, whereas acquisitions would be more valued in the later stages. Using a sample of alliances and acquisitions carried out by European telecom firms, our hypotheses have been confirmed.

RESUMEN: Analizamos cómo el orden de la entrada en un nuevo campo influye en la reacción del mercado de capitales ante la realización de alianzas estratégicas y adquisiciones dirigidas a ampliar los límites de las empresas. Planteamos que las alianzas serán más valoradas en las primeras etapas de un proceso de convergencia entre mercados, siendo las adquisiciones más valoradas en fases más tardías. Una muestra de operaciones realizadas por operadoras europeas de telecomunicaciones, confirma nuestras hipótesis.

Technical change, deregulation, and globalization force firms to adapt to a new competitive environment in which several markets and industries converge and where external resources are required (Barkema, Baum, & Mannix, 2002; Hitt, Keats, & DeMarie, 1998; Nohria & García-Pont, 1991). New technical knowledge, knowledge about new markets as well as a wider distribution network, among other resources, are required to succeed in this new competitive environment. As a

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The authors acknowledge the helpful comments provided by two anonymous referees, José Manuel Campa, Mauro Guillén, and the anonymous participants and discussants at the events in which previous versions of this paper were presented. Financial support from the European Union (FEDER) and the Spanish Ministerio de Ciencia y Tecnología (Project SEC 2003–08069) are gratefully acknowledged. Preliminary drafts of this paper were presented at the 2003 Annual Meetings of the Academy of Management and Asociación Cientifica de Economía y Dirección de Empresa, and at the 2004 Workshop on Strategic Alliances at Universidad Rey Juan Carlos. consequence of the need for external resources, business combinations (that is, strategic alliances and acquisitions) are expected to play an important role in this process of adaptation (Harrison, Hitt, Hoskisson, & Ireland, 2001; Hoskisson & Busenitz, 2002; Inkpen & Crossan, 1996; Kale, Dyer, & Singh, 2002). In fact, the recent alliance, merger, and acquisition waves (see, for instance, Hagedoorn & Osborn, 2002; Holmstrom & Kaplan, 2001) illustrate the importance of alliances and acquisitions in providing the firm with external resources that cannot be instantaneously developed internally (Chi, 1994; Dierickx & Cool, 1989). As both alliances and acquisitions are alternative means to gain access to external resources, an interesting question for researchers and managers is the detection of criteria for choosing between them. In this paper, we try to shed some light on this problem by analyzing to what extent early mover advantages (or disadvantages) associated with alliances or acquisitions influence the stock price of a firm that is expanding its own boundaries through them. We focused on this research question for a number of reasons. First, previous research has shown that alliance waves are followed by acquisition waves (García-Pont, 1999). Second, other research lines have shown that first-mover advantages (and disadvantages) may exist when entering into a new field (Lieberman & Montgomery, 1988; 1998). For this reason, we tried to analyze to what extent first-mover advantages and disadvantages were the same for alliances and for acquisitions, and whether or not these advantages and disadvantages condition the stock market reaction to alliances and acquisitions.

There is a vast literature dealing with the stock market reaction to business combinations (for a review, see Merchant & Schendel, 2000; Seth, Song & Pettit, 2000). The bulk of these empirical studies have focused only on strategic alliances or on acquisitions. However, this literature is not much help in identifying criteria for choosing between these two entry modes, because its results show that both alliances and acquisitions aimed at expanding firm boundaries could generate positive abnormal returns-in other words, they could increase shareholders' wealth-although the results of previous research is not always conclusive.1 Related and international acquisitions can be valued positively by the stock market.<sup>2</sup> Alliances whose activities are related to those of its own partners could also be valued by the stock market (see, e.g., Koh & Venkatraman, 1991; Merchant & Schendel, 2000), and the same happens to international alliances (Chen, Ho, Lee, & Yeo, 2000; Fröhls, Keown, McNabb, & Martin, 1998). Thus, as previous research highlights the fact that external growth through alliances and acquisitions increases shareholders' wealth, it is difficult to identify criteria for choosing between them. The only existing comparative research that focuses on the stock market reaction to both types of business combinations is the work by Balakrishnan and Koza (1993). They found sufficient empirical evidence to argue that, when it is difficult to asses the value of the assets of the target firm-for instance, when entering into a different industry-joint ventures increase the wealth of the shareholders of the bidding firm, as they protect it from adverse selection problems. Reuer and Koza's (2000) results dealing with a sample of joint ventures also support this hypothesis. It also seems that cultural distance affects abnormal returns on acquisitions negatively (Datta & Puia, 1995), but not in the case of alliances (Merchant & Schendel, 2000). However, apart from these studies, the lack of research analyzing the abnormal returns on both alliance and acquisition formation does not allow us to identify when each option is most valued by shareholders as a means to gain access to the external resources needed to take advantage of a new market opportunity. There is also some research that has empirically analyzed the choice between joint ventures and acquisitions (Hennart & Reddy, 1997; López-Duarte & García-Canal, 2002). However, none of these studies offers empirical evidence on the role of entry order in that choice, although some insights regarding this role are presented in Hoskisson and Busenitz's (2002) theoretical paper.

In order to fill this gap, we analyze to what extent early mover advantages (or disadvantages) associated to alliances or acquisitions are taken into account by the stock market. We analyze how these early mover advantages and disadvantages affect the stock prize of the companies that carry out alliances or acquisitions so as to expand its boundaries. As Lieberman and Montgomery (1998) point out, an early entry into a new field can have both positive and negative consequences for a firm. On one hand, an early entry facilitates resource accumulation. However, there are also early mover disadvantages due to technological and market uncertainties that may lead the firm to get the wrong resources (Lieberman & Montgomery,

1998). To the best of our knowledge, the paper by Carow, Heron, and Saxton (2004) is the only one that has also extended the literature of early mover advantages and disadvantages to the performance consequences of corporate practices. The main differences between our paper and Carow et al.'s are that we analyze not only acquisitions-like them-but also strategic alliances. In addition, while they analyze entry order within the context of acquisition waves across several industries, we focus on just one industry and analyze the different subfields entered by the players. We predict a different response to alliances and to acquisitions due to their different degree of flexibility: while alliances can be assimilated to real options (Kogut, 1991), acquisitions entail high commitment levels (Ghemawat, 1991). We tested our propositions using a sample of strategic alliances and acquisitions carried out by European telecom firms. During the past decades, such firms have suffered important competitive shocks due to technical change and deregulation, especially inside the European Union. These shocks have forced companies to adapt quickly to new technologies and to a wider geographical scope by gaining access to new resources that seemed to be more relevant under the new environment, usually through alliances or acquisitions (Doh & Teegen, 2003; Joshi, Kashlak, & Sherman, 1998; Trillas, 2002). By applying standard event study methodology, we calculate the abnormal returns experimented by a European telecom firm acting as a bidder in an acquisition or entering into an alliance. Then we analyze to what extent entry order influences these abnormal returns. We focused our attention only on the value of these focal firms, as our goal was to analyze how entry order influences the way in which external growth leverages the value of the firms.

# THEORY AND HYPOTHESES

Several industries have faced technological and regulatory changes that have forced firms belonging to them to expand their boundaries to new countries and new industries (Nohria & García-Pont, 1991). As a consequence of these changes also known as competitive shocks—a process of convergence of several industries and several geographic markets starts. In this process, firms look for external resources, as it is very difficult for them to internally develop the resources needed to compete in the new field. These required resources are of a strategic nature, usually idiosyncratic and, therefore, difficult to imitate and transfer (Barney, 1991). As there is no such market for these types of resources, firms have to gain access to them through strategic alliances or through mergers and acquisitions (Chi, 1994).

However, the number of potential partners or targets is not unlimited. Only firms established in each field own the needed resources, and not all of them are equally suitable to facilitate the entrance of the newcomer firms. Therefore, right after a competitive shock, some sort of competition for external resources starts because once an incumbent is acquired or enters into an alliance its resources are locked out for other firms. In the case of acquisitions, they are fully controlled by the bidder. In the case of strategic alliances, apart from the expectation of exclusivity that usually exists when they are formed after a competitive shock<sup>3</sup> (García-Pont, 1999; Gulati, Nohria, & Zaheer, 2000), the firm can define important control rights regarding the use of the resources of their partner (Lerner & Merges, 1998). Taking into account the scarcity of available partners and the fact that, after an organizational combination, there are fewer potential (and maybe less attractive) partners or targets, we can say that both alliances and acquisitions generate early mover advantages to the firms that use them. They allow the firm to secure the access to the external resources needed and to also choose among a wide array of potential partners or targets. Obviously, conventional early mover advantages that result from molding customers' preferences (Lieberman & Montgomery, 1988; 1998) are also applicable in this case. All of these advantages should increase the profitability that the early movers can obtain and, thus, should be reflected in their stock price.

However, in order to analyze the net effect of entry order on the stock prize of the bidder firm, we also have to take into account to what extent strategic alliances and acquisitions imply early mover disadvantages. First moves are inherently risky (Ketchen, Snow, & Hoover, 2004), and entry decisions, especially those made in the early stages of a process of convergence between markets, are made under conditions of uncertainty (García-Pont, 1999; Nohria & García-Pont, 1991). High technical and commercial uncertainties surround the entry decisions made by the pioneer firms that expand their boundaries, and this fact may lead them to acquire the wrong resources (Lieberman & Montgomery, 1998; Mitchell, 1989). For this reason, acquisitions also generate important early mover disadvantages. The real problem that early movers face is the uncertainty surrounding the value of the synergies that may be accomplished by pooling their resources with external ones. Basically, these uncertainties stem from the difficulties in properly assessing the rent-earning potential of the combination of resources from different firms (see, for instance, Somaya & Teece, 2001). As a consequence, early movements through acquisitions have the disadvantage of investing in assets that may turn out to have little value in the future (Mitchell & Singh, 1992). Thus, acquisitions are a high-commitment means of gaining access to external resources not only because of the price to be paid (the value of the whole target firm) but also because of the difficulty to turn back to the initial situation.<sup>4</sup>

Strategic alliances, on the other hand, are more flexible means of gaining access to external resources because there is no need to pay the market value of the external resources, and the alliance can be dissolved (Hoskisson & Busenitz, 2002). Strategic alliances formed during a process of convergence between two markets are, in fact, real options that offer a firm protection against uncertainty by substantially reducing the amount of the investment and giving access to new learning opportunities (Kogut, 1991; Kogut & Kulatilaka, 1994). Consequently, in the early stages of this process, the cost of a wrong decision is higher in the case of acquisitions than in the case of strategic alliances, and, in both cases, the firm can make use of the external resources of the target or partner. The flexibility associated to alliances, thus, should be more valuable at the beginning of the process because market and technological uncertainties are higher then than in later stages of the process of convergence between markets (Ghemawat, 1991; Hoskisson & Busenitz, 2002; Mitchell & Singh, 1992). In these later stages of the process, its flexibility is less valuable since both uncertainty and the number of available partners would be lower. Furthermore, acquisitions allow the bidder firm to plan the joint use of resources from day one. However, in the case of alliances, it is difficult to exploit all of the synergies between firms at the beginning of the relationship, due to lack of trust. In effect, firms entering into alliances face important uncertainties not only regarding the environment but also with respect to the future behavior of their partners: it is not clear whether they are going to behave cooperatively in the future beyond the assumed explicit commitments or to have the adaptability to react to unexpected changes in the environment (Ariño & de la Torre, 1998; Doz, 1996; Killing, 1988; Ring & Van de Ven, 1994). Although firms can establish control mechanisms to cope with these uncertainties, there is a minimum of mutual trust that they need to have in order to enter into an alliance (Das & Teng, 2001), the amount of necessary trust being dependent on the complexity of the alliance. Trust is, however, not only an input but also an output of cooperative relationships (Buckley & Casson, 1988; Killing, 1988). For this reason, alliances tend to be developed in a gradual way, as interfirm trust is an asset that is not available through the market but is only available through the development of a relationship (Ariño, de la Torre, & Ring, 2001; Killing, 1988). That is why firms usually do not exploit all of their synergies in their first alliance (Killing, 1988; Vanhaverbeke, Duysters, & Noorderhaven, 2002). In fact, time compression diseconomies (Dierickx & Cool, 1989) occur when trying to accelerate the development of the alliance (Dyer & Singh, 1998). Thus, alliances signed at the early stages of the process of convergence between industries have more time to develop the relationship. For this reason, entry order would have a negative influence on abnormal returns on alliance formation not only because fewer partners are available and there is less uncertainty but also because of the time that is required to fully use the external resources. Thus, the following hypothesis can be formulated:

H1: Abnormal returns for a firm that expands its boundaries through a strategic alliance will decrease as the number of firms that have previously expanded their boundaries to the new field increases.

One exception to this rule would be the case of strategic alliances made with partners with which the firm has collaborated in the past. New strategic alliances with old partners at the later stages of the process of convergence between two markets do not entail the same problems as do alliances with new partners. First, the old partner has been chosen at an early stage in the process, when more potential partners were available (enjoying, therefore, early mover advantages). Second, the partners have collaborated previously in the past, so they have enough trust accumulated to make the alliance work (Gulati, 1995), and, what is more, they are already prepared to get the most of the pooled resources, because they can take advantage of previous knowledge accumulated by working jointly (Dyer & Singh, 1998; Madhok & Tallman, 1998). In addition, the new alliance means that the firm gains additional control rights on the resources of its partner (Lerner & Merges, 1998). For these reasons, the following hypothesis can be formulated:

H2: The negative effect, over the abnormal returns on alliance formation, of the number of players that have expanded their boundaries previously will not hold for alliances made with partners with which the firm has been collaborating in the past.

The case of acquisitions is completely different. Although some early mover advantages exist, the disadvantages of an early entry outweighs them. This is due to the high uncertainty that exists in the early stages of the process of convergence between two industries or markets. On one hand, there are market uncertainties because the potential of the new market opportunity cannot be accurately measured. On the other hand, there are technological uncertainties because the technology or the final configuration of the generic product that is aimed at exploiting the market opportunity generated by the convergence of the two industries cannot yet be standardized as a dominant design (Abernathy & Utterback, 1978; Suarez & Utterback, 1995). In these circumstances, although an acquisition allows the firm to secure access to the resources of the target firm, these resources could become inadequate or even useless for the purposes of exploiting the new market opportunity (Mitchell & Singh, 1992). Although the same could happen to an alliance, in the case of acquisitions, the whole value of the firm should be paid. In addition, the firm may be gaining access to an excessive number of resources, whose market value needs to be paid by the firm. This can lead to the so-called digestibility problem (Hennart & Reddy, 1997), because the firm can find difficulties when trying to manage or sell them. Given the high commitment of resources associated with acquisitions (Ghemawat, 1991; Hoskisson & Busenitz, 2002), as well as the already-mentioned mentioned negative consequences that they may entail, early entries through acquisitions should be valued negatively by the stock market. However, as the number of players that have previously expanded their boundaries increases, the above-mentioned uncertainties tend to disappear, and the bidder can fully plan the use of the target resources from day one. Taking this into account, the following hypothesis can be formulated:

H3: Abnormal returns for a firm that expands its boundaries through an acquisition increase as the number of firms that have previously expanded their boundaries to the new field also increases.

# EMPIRICAL SETTING, DATA, AND METHOD

## **Empirical Setting**

We focus our analysis on the strategic alliances and acquisitions carried out by analyzing the external growth between 1986 and 2001 of the telecomm services providers located in the European Union. Since the latter half of the 1980s, such firms have suffered important environmental changes, such as the technological development related to wireless communications and the Internet as well as market deregulation-especially inside the European Union. Nowadays, telecommunication services constitute an industry whose boundaries are increasingly being widened through new subfields. The convergence of these formerly unconnected markets did not happen suddenly but happened through several parallel processes of boundary expansion carried out by means of strategic alliances and acquisitions. Through both operations, companies tried to adapt quickly to new technologies and to a wider geographical scope by gaining access to new resources that seemed to be more relevant under the new environment (Joshi et al., 1998; Trillas, 2002). We believe that this empirical setting provides an excellent opportunity for studying the impact of entry order on the stock market reaction to alliances and acquisitions for the following reasons. First, because, by focusing into a single industry, we can easily identify the fields in which there is a convergence between different markets. Specifically, European telecom firms needed to be prepared to several market opportunities; on one hand, a liberalized European single market for telecommunication services-fixed or wireless-and, on the other hand, the convergence-due to technological change or customer needs-of telecommunications with other related business, such as TV and entertainment, hardware, software, and

Internet service providers, among others. Second, the abovementioned propensity to external growth that exists in this industry. As previously mentioned, the entry modes used were alliances and acquisitions—instead of organic growth. And we could see a significant increment of these kinds of business combinations especially in the 1990s (Joshi et al., 1998; Trillas, 2002).

#### Data

Our initial sample includes the acquisitions and alliances carried out by European telecommunications companies between 1986 and 2001. We focused specifically on the providers of telecommunication services—that is, those firms whose main Standard Industrial Classification (SIC) code is 4812 (radiotelephone communications) or 4813 (telephone communications, except radiotelephone).<sup>5</sup>

In order to build our sample, we searched the Security Data Corporation (SDC) database for all of the alliances signed by the providers of telecommunication services located in the 15 countries that formed the European Union in 2001, as well as those mergers and acquisitions in which one of these firms were identified by SDC as the bidder. The SDC database is the most reliable source for identifying mergers and acquisitions as well as strategic alliances worldwide, and has been widely used in the fields of strategy, management, and finance. A total of 643 acquisitions and 830 alliances for the studied period were identified. As previously mentioned, our goal was to analyze how the formation of these business combinations affected the share price of a European telecom company. We have treated each abnormal return as a separate case: we have calculated the abnormal return for the bidder firm in the case of acquisitions, and for all the European partners in the case of strategic alliances. Because of the methodology used, each combination announcement had to meet the following criteria so as to be included in the final sample:

- 1. The European firms' daily stock prices were available in the DataStream database.  $^{6}$
- 2. The precise date of the announcement could be identified in the LexisNexis database.<sup>7</sup>
- 3. No major confounding announcement that could contaminate the effect of the studied event was made within a ±5 day period around the announcement day.<sup>8</sup>

After the elimination of all the events that did not fit the criteria mentioned above, the final sample consisted of 271 and 372 experiences of European telecom firms in acquisitions and in strategic alliances, respectively, carried out by 40 firms. Table 1 shows the firms included in our sample and the number of events (alliances and acquisitions) in which they were involved.

# Dependent Variable and Method of Analysis

Standard event study methodology was used to examine if the number of firms that have previously expanded their boundaries to a specific field through acquisitions or alliances influences the abnormal returns generated by these operations.

As a dependent variable, we used the cumulative abnormal returns between  $\pm 3$  trading days around the public announcement of the business combination. We used this period because it is the widest window in which we could guarantee the noncontamination of our events, due to our five-day screening for confounding events. We followed Brown and Warner's (1985) procedure to determine the reaction in the stock price of the financial assets under the announcement of certain relevant events. Abnormal returns are defined as the difference between actual returns and those returns that should be expected according to a market model (Sharpe, 1964).9 The estimation of the market model was carried out over a 180-day period beginning 200 days before the date of the announcement (t = -200) and finishing 21 days before this same date (t = -21); t = 0 being the announcement date. We have excluded the 20 days prior to the announcement from the estimation of the market model so as to remove data that might be affected by the event. Their inclusion might have led to an undervaluation of the abnormal returns, because the effect of the announcement would have partially been incorporated in the expected returns.

We also used the market-adjusted returns model to calculate abnormal returns. In this model, alpha and beta coefficients of the traditional market model are equal to 0 and 1, respectively. Thus, these coefficients do not need to be estimated, and any potential contamination of the estimation period is avoided. The main reason for calculating the dependent variable using an alternative estimation method was to use it to check for the robustness of the results of our estimations. As we are using prices formed in different stock markets, some biases may exist. By using abnormal returns calculated with a different method, we can analyze to what extent our results regarding our independent variables are robust to the method used to calculate abnormal returns. This model is also used by some authors (see, for instance, Fuller, Netter, & Stegemoller, 2002) when there is a high probability that previous events could be included in the estimation period of the market model, thus making beta estimations less meaningful.<sup>10</sup>

Table 2 shows the results of the event study using the market model and the market-adjusted returns model. When using the market model for the whole sample, we observed that the companies that carry out business combinations obtained, on average, negative and significant returns (except

Number of acquisitionsNumber of percentNumber of alliancesPercentAspiro Information AB10.40Atlantic Telecom Group PLC10.40Avenir Telecom20.70British Telecom140.294Cable & Wireless2810.356Colt Telecom003Cyber Tron AustrianDigital Telekom AG10.40Debitel AG10.40Elisa Communications Ovi51.80	
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CyberTron AustrianDigital Telekom AGI0.40Debitel AGI0.40Deutsche TelekomI24.4I0Elisa Communications Ovi5I.80	0.8
Debitel AGI0.40Deutsche TelekomI24.4I0Elisa Communications Ovi5I.80	0
Deutsche Telekom124.410Elisa Communications Ovi51.80	0
Fliss Communications Ovi 5 1.8 0	2.7
	0
Energis 4 1.5 3	0.8
France Telecom 17 6.3 6	1.6
Genesys SA 4 1.5 0	0
GN Store Nord 4 1.5 5	1.3
Hellenic Telecommunications Organization 5 1.8 0	0
Kingston Communications I 0.4 2	0.5
KPN 17 6.3 17	4.6
Libertel 0.4 0	0
Mannesmann 28 10.3 27	7.3
Millicom International Cellular SA 2 0.7 0	0
MobilCom Communikationstechnik 7 2.6 I	0.3
Netcall 2 0.7 I	0.3
Ing. C. Olivetti 10 3.7 46	12.4
Portugal Telecom 10 3.7 5	1.3
Redstone Telecom PLC 2 0.7 0	0
RWE Telliance 4 1.5 4	1.1
Scottish Telecom I 0.4 2	0.5
Sonera 6 2.2 I	0.3
Tele Danmark 15 5.5 7	1.9
Tele L Europe Holding 0.4 L	0.3
Telefónica 18 6.6 31	8.3
Telewest Communications 2 0.7 5	1.3
Telindus Group I 0.4 I	0.3
Thyssen Telecom 3 I.I 3	0.8
Tiscali SpA I 0.4 0	0
Telecom Italia 21 7.7 36	9.7
United Pan-Europe Communications NV 4 1.5 0	0
Vivendi Universal (Martory SA) I 0.4 0	0
Vodafone I3 4.8 I	0.3
Wind Telecomunicazioni I 0.4 4	1.1
Total 271 100.0 372 1	

TABLE I Firms in Sample

for the interval of accumulation [-1,1]), which ranged between -0.02 percent and -0.32 percent. In acquisitions, we saw how the bidders obtained negative abnormal returns on average when carrying out this type of operation. However, in the case of alliances, although in all the intervals returns obtained were on average negative, these abnormal returns were not statistically significant. When using the market-adjusted returns model, the results do not differ substantially.

As for the percentage of positive events, we observed that between 43 percent and 48 percent of the firms in all samples obtained positive abnormal returns. These high percentages showed that strategic alliances and acquisitions were sometimes beneficial and sometimes disadvantageous for firms.

		Ab	normal Returns (in per	cent)		
Interval	Abnormal returns	<b>P</b> ercent	Abnormal returns	Percent	Abnormal returns	Percent
	whole sample	positive	acquisitions	positive	alliances	positive
[–3,3]	-0.32*	45	-0.31*	43	-0.34	47
	-0.17	48	-0.13	47	-0.19	47
[-1,1]	-0.04	48	-0.02*	47	-0.06	48
	-0.04	48	-0.02†	48	-0.05	48
day 0	-0.02†	46	-0.03	45	-0.02	47
	-0.03	44	-0.07	45	-0.01	43

TABLE 2Abnormal Returns (in percent)

*Notes:* In each quadrant, the upper data is related to the market model and the lower data is related to the market-adjusted returns model.  $\dagger p < 0.1$ ; \* p < 0.05.





Figure 1 shows the cumulative abnormal returns obtained by the firms in our samples from day -20 to day 20.<sup>11</sup> Despite not being statistically significant, cumulative abnormal returns of acquisitions in the [-20,20] period are higher than those of alliances.

#### Independent Variables

In order to test our hypotheses, we used two variables—*Players* and *Previous Partners*. *Players*—this discrete variable measures the number of telecom firms that were present in the field toward which the focal European telecom firm expanded when the business combination was announced. As previously

mentioned, the European telecommunications firms needed to be prepared for several market opportunities. On one hand, the European single market for telecommunication services fixed or wireless—and, on the other hand, the opportunities associated to the convergence—due to technological change or customer needs—of telecommunications with other related business. According to this, we have classified our sample of alliances and acquisitions in the following fields: telecommunications (fixed and wireless), distribution (shops), TV and entertainment, directories, telephone equipment, hardware, software, communication infrastructures (cables and networks), and Internet service providers. These groups were formed after a detailed analysis of the patterns of expansion of these

companies, as well as by analyzing specialized literature. They comprise more than 85 percent of the total number of cases studied. The remaining 15 percent of cases were diversifying movements toward other industries that were directly identified by their four-digit SIC codes. Thus Players captures the number of firms from the studied population (European providers of telecommunication services) that were already positioned to take advantage of the new market opportunity. Thus, if the combinations of our sample were in the core business (telecommunications-fixed or wireless), Players measures the number of European operators that were already internationalized at that moment.<sup>12</sup> If the combinations in the sample were in a different industry, Players measures the number of European operators that were already present in the new specific field as defined above.<sup>13</sup> As external growth is the rule in this industry, we obtained this information from the SDC by searching for European operators that had previously done intra-industry cross-border business combinations or crossindustry business combinations.

*Previous Partners*—This is a dummy variable, valued at 1 when there exists at least one previous alliance between two or more partners that formed a new alliance, and 0 otherwise. In order to detect the presence of these previous alliances, we systematically searched through the SDC database for any previous alliance formed by each pair of firms in the alliance. This variable is valued at 1 when there is at least a previous alliance between two partners in the same alliance. This variable is only introduced in the models of alliances, as explained below, because it will be used to test H2. Also, in order to detect any interaction between this *Previous Partners* and *Players*, we multiplied them to create the *Players* × *Previous Partners* variable, which was also included in our estimations.

#### **Control Variables**

To test the robustness of our results, we also included several control variables in our estimations. First, firm and year dummies were introduced with the aim of controlling the possible influence of time and any unobserved heterogeneity inherent to each company on the abnormal returns. Specifically, we introduced 38 firm dummies for the first regression of acquisitions and 13 firm dummies and 11 year dummies for the second and third models (the number is lower as the number of observations is reduced due to the lack of some information related to control variables). For the first regression of alliances, we introduced 25 firm dummies and 11 year dummies, due to the same reasons as in the case of acquisitions.

Second, the following variables were introduced in order to control the influence that the specific characteristics of the business combination studied in previous literature could exert over the abnormal returns:

- 1. *Intangibles:* This is a variable that captures the percentage of intangible assets over the total assets of the company at December 31 of the year previous to the date of realization of the business combination.<sup>14</sup> We introduced this variable because there is large evidence that shows that the intangibles accumulated by the bidder in the case of acquisitions (Morck & Yeung, 1992) or the participating firms in an alliance (Chen et al., 2000) condition the abnormal return they can obtain.
- 2. International: This is a dummy variable, valued at 1 in those business combinations that are aimed at coordinating operations in a foreign country. Some studies, such as DeLong (2001) or Eckbo and Thorburn (2000), among others, found that international acquisitions benefit firms' shareholders. In the case of alliances, the evidence is mixed (see, for instance, Chen, Hu, & Shieh, 1991; Lee & Wyatt, 1990). This variable was constructed based on the information provided by SDC. In the case of acquisitions, International equals 1 when the target is located in a country different from the home country of the bidder. In the case of alliances, International is valued at 1 when the activities of the alliance are performed outside the home country of the focal firm.
- 3. Diversification: This is a dummy variable, valued at 1 in those operations where the purpose is to diversify-that is, to carry out activities in a nontelecommunications industry. In the case of alliances, previous literature has taken into account the relatedness between alliance activities and partner activities. Its results show that this relatedness increases the abnormal returns associated to the formation of the alliance. In this respect, Koh and Venkatraman (1991) and Merchant and Schendel (2000) found that the higher the relatedness between alliance activities and partner activities, the higher the abnormal returns. As for acquisitions, previous works (see, for instance, Balakrishnan & Koza, 1993; Seth, 1990) also considered the relatedness between the businesses of the bidder and the target companies and their effect on the abnormal returns associated with the operation. These results are mixed. This variable was constructed based on the information provided by SDC. In the case of acquisitions, Diversification is valued at 1 when the main SIC code of the target is different from 4812 or 4813. In the case of alliances, Diversification is valued at 1 when the main SIC of the alliance is different from 4812 or 4813.
- 4. *Cashflow:* This variable measures the free cash flow of the studied European firm. To create this variable, we used the following measure using the financial data provided by DataStream:

 $Cashflow = \frac{Operative \ income - Interests - Taxes - Dividends}{Total \ assets}$ 

As only yearly data of these measures were available, the variable *Cashflow* was calculated at December 31 of the year previous to the acquisition or the alliance studied.

- 5. *State:* This variable captures the percentage of capital that the state possesses in the company. These data were obtained from the revision of the companies' annual reports, and from direct and electronic conversations with firms' staff.
- 6. Debt: This is the debt ratio of the firm, defined as the short- and long-term debt over the total assets of the firm. This variable was also built using DataStream. As this information is yearly, we calculated the Debt variable at December 31 of the year previous to the acquisition or the alliance studied. Debt, State, and Cashflow are controls for agency costs. According to Jensen (1986), firms with more free cash flow and less debt have more incentives to expand through acquisitions. In addition, firms totally or partially owned by the state bear additional agency costs because of politicians (Boycko, Shleifer, & Vishny, 1996). Agency costs are a common control in the literature of the stock market reaction to acquisitions (Amihud, Lev, & Travlos, 1990; Shelton, 2000) and alliances (Chen et al., 2000).
- 7. *Cultural Distance:* This variable measures the cultural distance between the firms involved in the business combination. We created this variable by means of the Kogut and Singh (1988) index, using Hofstede's (2001) revised measures as input. In the case of alliances, when they involved more than two partners, we followed the procedure employed by Kim and Park (2002). Specifically, for each pair of partners, we calculated the Kogut and Singh (1988) index and, afterward, the average between these indices. We included this control, as it is a variable typically used in the literature on the stock market reaction to business combinations, although the empirical evidence is mixed (Merchant & Schendel, 2000; Very, Lubatkin, Calori, & Veiga, 1997).
- 8. *Political Stability:* This is a variable that measures the political stability in the geographical area of the alliance or in the country of the acquired company. This variable is based upon the index defined by Henisz (2000). We introduced this control by taking into account the fact that this industry is affected by the decisions taken by regulators (Henisz & Zelner, 2001) and because the institutional environment of the country has been one of the factors analyzed in previous research (Chen et al., 2000; Lee & Wyatt, 1990).

With regard to the control variables exclusively used for acquisitions, we measured the level of commitment of the acquisitions by means of these three dummies: *Partial Acqui*  *sition* (valued at 1 if it is a first acquisition of less than 100 percent of the capital of the target company), *Total Acquisition* (valued at 1 if it is the purchase of 100 percent without previous presence in the target capital), and *Accumulation* (valued at 1 if it is not the first purchase made by the bidder over the target firm's shares). We excluded the last dummy variable to avoid perfect correlation problems. This information was provided by the SDC database.

For the subsample of alliances, we introduced a dummy variable (Global), valued at 1 in those alliances that permit firms to coordinate activities in more than one country at the same time. These global (Parkhe, 1991) or multicountry (Porter & Fuller, 1986) alliances are seen as more valuable than alliances having a single country scope. Kim and Park (2002) and Vidal and García-Canal (2003) found a positive and significant effect of these kinds of alliances over the abnormal returns of the partners. We have also used the R&D, Manufacturing, and Marketing variables, which are nonexcluding categories and allowed us to control for the different types of alliances that may be included in the sample. Many previous studies have examined how the alliance functional role, especially R&D alliances (Das, Sen, & Sengupta, 1998; Merchant & Schendel, 2000), could affect the abnormal returns of the firm's shareholders. The last control variables introduced are Partners, which control the number of partners that form each alliance, and JV, a dummy variable that takes the value of 1 if the alliance has given rise to the creation of a joint venture, and 0 otherwise. All of these variables where constructed using the information provided by the SDC database, which provide precise information regarding the geographical scope of the alliance, the functional areas involved in the alliance, and the number of partners.

With all these variables, we estimated several multiple linear regression models for the subsamples of acquisitions and alliances. Specifically, we estimated two initial models for each subsample (models 1a and 2a) containing only the variables concerning our hypotheses (Players, Previous Partners, and Players × Previous Partners), and firm dummies as minimum controls. Then, we also estimated another model for each subsample, introducing the independent variables and all the control variables described above. Due to the existing correlation between some variables, we had to estimate these models by introducing the correlated variables alternatively. Specifically, in the subsample of acquisitions, International and Cultural Distance variables were correlated (as shown in Table 3). Thus, we estimated two models (models 1b and 1c), one with the first variable and one with the second variable. In the subsample of alliances, the variables correlated were Diversification and Players (as shown in Table 4), so, in this case, we only estimated the model that comprised the *Players* variable in order to test our hypotheses (model 2b).

 TABLE 3

 Correlation Matrix (Subsample of Acquisitions)

-					•	-	-	•			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1)	I	-0.05	0.04	-0.02	0.01	-0.16	0.05	-0.20	0.17	-0.11	0.16
(2)		I	-0.21	0.55	0.07	-0.02	-0.04	0.07	-0.02	-0.09	0.11
(3)			I	-0.20	-0.13	0.12	0.20	0.07	0.01	0.15	-0.36
(4)				I	0.12	-0.18	-0.34	0.07	-0.07	0.02	0.12
(5)					I	-0.14	-0.05	0.11	0.06	-0.15	-0.03
(6)						I	0.02	0.37	-0.08	0.04	-0.01
(7)							I	0.09	0.13	-0.14	-0.09
(8)								I	0.05	-0.06	0.05
(9)									I	-0.47	0.08
(10)										I	-0.18
(11)											I
. ,											

Notes: (1) Intangibles, (2) International, (3) Diversification, (4) Cultural Distance, (5) Cashflow, (6) Debt, (7) Political Stability, (8) State, (9) Total Acquisition, (10) Partial Acquisition, (11) Players.

# RESULTS

Table 5 presents the results of the multiple linear regression models estimated in the subsample of acquisitions. In particular, in Table 5, there are three regression models in which we used the market model to estimate the dependent variable (models 1a, 1b, and 1c), and the same models using the market-adjusted returns model to estimate the abnormal returns (models 1a', 1b', and 1c'). Table 6 shows the results of the multiple linear regression models estimated in the sample of strategic alliances. Specifically, it presents two regression models in which the dependent variable was calculated using the market model (models 2a and 2b), and two linear regression models in which the abnormal returns were calculated using the market-adjusted returns model (models 2a' and 2b'). Each model includes the value of the coefficients of the independent variables and an indication of their significance level. The explanatory power of all the models (measured via the F-statistic) is statistically significant. Taken as a whole, our results confirm the main predictions of our theoretical framework. Our estimates regarding the independent variables not only have the expected sign but also are significant. Moreover, they are robust since their results are the same in all the models, no matter which variables are included or the estimation method used to calculate the abnormal returns.

H1 is supported. The *Players* variable is negative and significant in the sample of alliances. This indicates that, as the number of firms that have expanded their boundaries to a new field increases, alliances are less valued by the stock market because the uncertainty is lower, and also because of the time needed to make the alliance work and fully take advantage of the external resources.

H2 is also supported. The *Players*  $\times$  *Previous Partners* variable presents a positive and significant coefficient in model

2b (and also in the model 2b'). This indicates that the negative impact of the *Players* variable on abnormal returns does not hold when there were previous alliances among the partners. The negative effect that the *Players* variable presents (-0.13) is counteracted by the positive effect related to the *Players* × *Previous Partners* variable (0.16). In fact, the net effect of the number of players that have expanded their boundaries to a new field when partners in the alliance have had previous relations is 0.03 (0.04 when using the market-adjusted returns model). After applying a *t*-test to the sum of the coefficients of these two variables, we found that this effect is statistically different from zero (p < 0.05).

Finally, H3 is also supported. The *Players* variable is positive and significant in the sample of acquisitions. This indicates that, as the number of firms that have expanded their boundaries to a new field increases, acquisitions are more valued by the stock market not only because the uncertainty is lower but also because firms can benefit from the external resources from day one.

Figure 2 presents the abnormal returns predicted in our models, depending on the value of the variable *Players* and the existence of (or the lack of) previous alliances with the partners. As shown in Figure 2, in the case of alliances, the greater the number of firms that have expanded their boundaries to a new field, the lower the stock market values the alliance, if there are not previous alliances with the partners. However, if there are previous alliances among them, market values alliances better the higher the number of previous companies that have expanded their boundaries to a new field. Thus, Figure 2 allows us to graphically illustrate H1 and H2. Regarding acquisitions, Figure 2 also shows that the higher the number of players, the higher the abnormal returns of this kind of operation, which also allows us to illustrate H3.

						Correla	tion Mat	rix (Sub	sample o	fAllianc	es)					
	(1)	(2)	(3)	(4)	(5)	(9)	(1)	(8)	(6)	(01)	(11)	(12)	(13)	(14)	(15)	(91)
()	_	-0.26	-0.0	-0.06	-0.15	0.49	0.02	-0.04	0.08	-0.12	-0.07	-0.11	-0.10	-0.07	0.29	-0.12
(5)		_	-0.13	0.35	0.19	-0.24	-0.09	0.06	0.31	0.23	0.10	0.02	0.18	0.14	-0.12	0.14
(3)			_	-0.25	-0.02	0.14	0.01	0.02	-0.06	0.12	-0.01	0.04	-0.10	-0.15	-0.51	-0.01
(4)				_	0.10	-0.1	-0.24	0.01	0.02	-0.14	0.14	-0.04	0.00	0.16	0.06	0.06
(2)					_	-0.31	-0.03	0.04	0.04	0.07	0.01	0.07	0.03	0.06	-0.07	0.06
(9)						_	0.12	0.19	0.04	0.02	0.07	-0.II	-0.10	-0.23	0.20	-0.04
6							_	0.08	-0.06	0.04	0.03	-0.06	0.05	-0.12	-0.02	-0.07
(8)								_	0.13	0.11	0.19	-0.09	0.02	-0.07	-0.07	0.11
(6)									_	0.16	0.07	-0.02	0.16	-0.07	0.02	0.12
(01)										_	-0.07	-0.05	0.19	-0.09	-0.24	0.09
											_	0.00	0.10	0.01	-0.04	0.18
(12)												_	-0.12	-0.02	-0.17	0.00
(13)													_	0.15	-0.07	0.10
(14)														_	-0.09	0.19
(15)															_	-0.10
(91)																_
Notes: () (13) Pai	<ol> <li>Intangibl.</li> <li>ticipants, (1)</li> </ol>	es, (2) Intern 14) JV, (15)	vational, (3) Players, (10	Diversificatı 5) Previous F	on, (4) Culti artners.	ural Distanc	е, (5) Cashf	low, (6) Deb	t, (7) Politic	al Stability.	. (8) State, (9	)) Global, (1	0) <i>R&amp;D</i> , (1	1) Manufacı	turing, (12)	Marketing,

		Market model		Market	-adjusted return	s model
Variables	Model Ia	Model Ib	Model Ic	Model Ia'	Model Ib'	Model Ic'
Intercept	-2.49	8.08	6.66	-8.48	8.46	7.55
Independent variable						
Players	0.08†	0.16†	0.18*	0.10†	0.12†	0.13†
Control variables						
Firm dummies	Included	Included	Included	Included	Included	Included
Year dummies	Excluded	Included	Included	Excluded	Included	Included
Intangibles		39.3**	33.3*		26.0†	23.7
International		-1.19			-1.95*	
Diversification		-1.46	-1.14		-1.03	-0.81
Cultural Distance			-0.34			-0.62
Cashflow		-1.76	37.08		-5.01†	12.90
Debt		-41.4***	-44.3***		-40.6***	-41.5***
Political Stability		4.62*	4.16†		3.37	2.22
State		0.14**	0.13**		0.11*	0.11†
Total Acquisition		1.55	2.11†		1.83	2.18†
Partial Acquisition		2.04†	2.23†		1.12	1.42
Ν	271	143	143	271	143	143
Model significance (F)	1.96**	1.95**	1.91**	2.3I****	1.66*	1.55*
Adjusted $R^2$ (percent)	11.7	18.5	18.3	15.2	13.7	11.9

 TABLE 5

 Multiple Linear Regression Models for Acquisitions

*Notes:* The dependent variable is the cumulative abnormal returns, in percentage, over the period [-3,3] (CAR [-3,3]). Abnormal returns were calculated using the market model, as well as the market-adjusted returns model. The number of firm dummies included in the models is 38 in models 1a and 1a', and 13 in models 1b, 1b', 1c, and 1c'. The number is lower as the number of observations in the latter models is reduced due to the lack of some information related to control variables. The number of year dummies included in models 1b, 1b', 1c, and 1c' is 11. This number is lower than 15 (initial data of 16 years between 1986 and 2001) due to the same reason of the lack of information related to some control variables for the first years. The coefficients of the firm and year dummies are omitted in order to simplify the presentation of these results. Models 1b and 1c (and 1b' and 1c') include, alternatively, the variables *International* and *Cultural Distance*. These two variables are not included simultaneously in the same model due to the existing correlation between them. Coefficients are robust to the heteroskedasticity.  $\dagger p < 0.1$ ;  $\ast p < 0.05$ ;  $\ast \ast p < 0.01$ ;  $\ast \ast p < 0.001$ .

#### DISCUSSION AND IMPLICATIONS

The study presented here has tried to analyze how entry order affects the stock market reaction to two alternative means of gaining access to external resources—acquisitions and strategic alliances. Firms expand their boundaries through alliances or acquisitions when external changes force a convergence between two industries or markets. Although there is a vast literature dealing with the stock market reaction to organizational combinations aimed at expanding firm boundaries, entry order (defined as the number of firms that have previously expanded into a new field) has not yet been analyzed.

Our main prediction was that entry order affects abnormal returns positively in the case of acquisitions, and negatively in the case of alliance formation. We based our hypotheses on two premises: first, that flexibility of strategic alliances is more valuable at the early stages of a process of convergence between two industries; second, that the commitment associated to acquisitions is more valuable in the latter stages of this process. Our predictions were confirmed in the analysis of the determinant factors of abnormal returns associated to the formation of organizational combinations carried out by European telecom firms. As discussed below, the overall pattern of results provided insights regarding the importance of early mover advantages and entry order on the stock market valuation of strategic alliances and acquisitions.

Results about entry order support H1 and H3. When companies need to adapt to a new situation in an industry, they have to face with uncertainty at the early stages of this process. The first combinations made in any industry after external changes are made under high uncertainty. In fact, this uncertainty is the main logic behind the formation of strategic blocks or business constellations (Gomes-Casseres, 1996; Nohria & García-Pont, 1991). On one hand, the uncertainty makes acquisitions less attractive. On the other hand, the fear of being locked out of an external capability leads firms to alliance formation. For this reason, firms tend to react to the alliances of their closest competitors (García-Pont & Nohria, 2002; Gimeno & Jeong, 2001). Empirical evidence in several industries affected by changes in the environment

	Marke	t model	Market-adjuste	d returns model	
Variables	Model 2a	Model 2b	Model 2a'	Model 2b'	
Intercept	0.92	8.75	1.07†	4.07	
Independent variables			·		
Players	-0.12**	-0.13*	-0.13**	-0.14*	
Previous Partners	-1.65*	-2.19†	-1.98*	-2.29*	
Players $ imes$ Previous Partners	0.13*	0.16†	0.17**	0.18*	
Control variables					
Firm dummies	Included	Included	Included	Included	
Year dummies	Excluded	Included	Excluded	Included	
Intangibles		30.52†		33.43†	
International		-I.48†		–1.77 <sup>*</sup>	
Cultural Distance		0.24		0.27	
Cashflow		-6.06†		–I2.09 <sup>****</sup>	
Debt		-14.99		-8.74	
Political Stability		0.49		0.66	
State		0.02		0.02	
Global		2.24*		2.29**	
R&D		-0.46		-0.27	
Manufacturing		-1.42		-0.89	
Marketing		<b>-1.27</b> †		-1.07	
Participants		-0.20		-0.11	
JV .		-0.02		-0.21	
N	372	208	372	208	
Model significance (F)	1.52†	1.53*	1.86**	1.51*	
Adjusted $R^2$ (percent)	3.5	9.3	5.7	9.0	

 TABLE 6

 Multiple Linear Regression Models for Alliances

*Notes:* The dependent variable is the cumulative abnormal returns, in percentage, over the period [-3,3] (CAR [-3,3]). Abnormal returns were calculated using the market model, as well as the market-adjusted returns model. The number of firm dummies included in the models is 25 in models 2a and 2a', and 13 in models 2b and 2b'. The number is lower as the number of observations in the latter models is reduced due to the lack of some information related to control variables. The number of year dummies included in the models 2b and 2b' is 11. This number is lower than 15 (initial data of 16 years between 1986 and 2001) due to the same reason of the lack of information related to some control variables for the first years. The coefficients of the firm and year dummies are omitted in order to simplify the presentation of these results. The variable *Diversification* is not included in models 2b and 2b' due to the existing correlation between this variable and the variable *Players*, which is the independent variable to test the hypotheses of this study. Coefficients are robust to the heteroskedasticity. † p < 0.1; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

shows that there are two waves of business combinations: a first wave in which alliances are predominant, and a second wave in which acquisitions are more frequent (García-Pont, 1999). What our results show is that the stock market values this pattern of behavior. Investors value flexibility in the first stages, and commitment once the uncertainty has disappeared. The preference for acquisitions when most of the players have already entered into a new field could be explained by the difficulties in replicating the situation of those competitors that already have set up strategic alliances in that field. As previously mentioned, alliances take time to develop, and speeding up this process could lead to time compression diseconomies (Dyer & Singh, 1998). Acquisitions, on the other hand, allow the firm to undertake bilateral resource redeployment once the operation is completed (Capron, Dussauge, & Mitchell, 1998).

What is interesting is that even when a firm has a partner, its acquisition could make sense when it allows the firm to avoid the risk of losing access to external resources. In fact, acquisitions of previous partners could be understood as the exercise of a real call option (Kogut, 1991). We ran alternative regressions in the acquisitions subsample that included a multiplicative variable between *Players* and a dummy variable, which was valued at 1 when the firm had previous alliances with the target. This variable was never statistically significant (the other results remained unchanged<sup>15</sup>), which shows that acquisitions of firms with and without previous links with the bidder increase the expectations of profitability for the bidder firms.

Our results regarding H2 are also supported and are also compatible with those of the previous hypothesis. As links between firms are weaker in strategic alliances than in acqui-



FIGURE 2

Plot of Predicted Effect of Players on the Abnormal Returns of Acquisitions and Alliances

sitions, new alliances with old allies have several advantagesas already mentioned-which increase its odds of success. In fact, the negative effect of the Previous Partners variable is counteracted by the positive effect of the Players × Previous Partners variable only when the number of firms already present in the field studied if higher than 14. This value is comprised within the rank of the Players variable-between 0 and 33and the median of this variable is 10.5. These results show that new alliances with old partners are positively valued when at least 14 firms have entered into the new field. Therefore, our results indicate that, at the latter stages of the process of convergence between two industries, alliances with previous partners are positively valued by the stock market. These alliances also signal an increasing commitment between partners that augment control rights among them, reinforcing the relationship and securing the access to the resources of the partner.

Summing up, the main implication from our analysis is that, after a competitive shock that leads to the convergence of two markets, the entry strategy should be different depending on the stage of this process of convergence. In the early stages, what is important is to define strategic alliances with the best partners available. In the latter stages, the market values the consolidation of previous alliances (either through acquisitions or through new alliances) as well as the acquisitions of firms already operating in the new field in order to ensure that the firm will not be excluded from this market opportunity. These are two different ways to commit resources to the new field, and our results show that, in both cases, the market values this commitment more positively when the uncertainty regarding the need of these resources is low. In other words, our results confirm Ghemawat and del Sol's insight: "the value of the commitment depends on . . . the probability of incorrect choice" (1998: 38). Our results also complement those of recent research in entry order (Isobe, Makino, & Montgomery, 2000; Shamsie, Phelps, & Kuperman, 2004), highlighting the importance of taking into account not only entry timing but also the entry mode. However, these results seem to contradict those of Carow et al. (2004). Nevertheless, these differences could stem from the methodology, as Carow et al. considered mergers and acquisitions (not alliances) to define what they call early and late movers.

Additional insights may be derived from examining control variables. The higher the presence of intangible assets in firms that make business combinations, the higher the abnormal return obtained from those combinations. Following a reasoning based on transaction costs economics, intangible assets usually have high transaction costs associated with them. For this reason, mechanisms different from market transactions (such as alliances and acquisitions) would be more effective means to transfer intangible assets (Chi, 1994), and should be positively valued by the stock market. For reasons of data availability, we only focus on assets belonging to the focal firm. Our results regarding acquisitions are consistent with those of Morck and Yeung (1992). They found that an acquisition would create value only if it allows valuable intangible assets to be transferred from the bidder to the target. In the same way, Capron and Pistre (2002) found that the shareholders of the bidder firm involved in an acquisition earn more, on average, when this firm transferred innovations and managerial resources to the target firm. Our results regarding alliances also confirm those of Das et al. (1998) and Merchant and Schendel (2000), who found that alliances made with partners having valuable intangible assets related to R&D were more valuable than any other alliance.

In the case of acquisitions, international operations do not seem to be positively valued, which contradicts previous evidence (DeLong, 2001; Doukas & Travlos, 1988; Eckbo & Thorburn, 2000; among others). However, it seems that the stock market is concerned by the risk assumed by the firms. Political Stability is positively valued by the stock market (although this result is not robust to the estimation model used to calculate the abnormal returns). The results of the Debt variable are also consistent with those of Political Stability: it seems that investors were concerned by the consequences of some of their investments on the solvency of the firms. In addition, a higher presence of the state in the capital of the firm that expands its boundaries through acquisitions seems to be positively valued by the stock market. This positive effect could be related to the fact that the presence of the *State* in a firm's equity could indicate that this firm was a previous monopoly. Thus, the positive influence would be related to the market position of the company: a previous monopoly might have a stronger position in its market.

Finally, in the case of alliances, the market values these operations better when they allow firms to enter into more than one country at the same time (global alliances). This means that the market values alliances in which firms leverage the synergies available from the pooled resources (Vidal & García-Canal, 2003).

#### CONCLUSIONS

This paper attempts to explain abnormal returns on acquisitions and strategic alliances aimed at expanding firm boundaries. Instead of focusing on the characteristics of the firm or on the resource combination itself, we analyze how entry order (understood as the number of competitors that have expanded their boundaries to a specific field) influences abnormal returns. Once external changes force a convergence between two industries or markets, some sort of competition for external resources starts. We claim that alliances and acquisitions do not contribute equally to shareholders' wealth across all stages of this process of market convergence. Specifically, we argue that alliances generate higher abnormal returns at the early stages of the process of market convergence, and that acquisitions generate higher returns in the later stages. We base our hypothesis on two premises: first, that flexibility of strategic alliances is more valuable at the early stages of a process of convergence between two industries; and, second,

that the commitment associated to acquisitions is more valuable in the latter stages of this process. Our predictions have been confirmed by the results of our analysis of the determinant factors of abnormal returns in alliance formation within a large sample of alliances carried out by European telecom firms.

The main contribution of our paper is to show that entry order is a critical variable in the analysis of abnormal returns on alliances and acquisitions. Whereas environmental uncertainty decreases with entry order, the difficulties in replicating the resource combinations of firms that have already expanded to the new field increase with it. For this reason, we argue that the trade-off between these two forces makes alliances more valuable for shareholders at the early stages of the process of market convergence, and acquisitions in the latter stages. We have provided evidence that shows that the stock market values flexibility when a few players have expanded their boundaries, and it values commitment when most of the firms have already expanded them. Furthermore, we have also found evidence that shows that, at the latter stages of the process of convergence between two industries, alliances with previous partners could be positively valued by the stock market. These alliances could be seen as processes that entail a higher commitment among partners, reinforcing the relationship and securing the access to each other's resources.

Certain limitations in the study must be taken into account when analyzing our results. A first limitation is that the results may be influenced by the particular characteristics of our sample: all the acquisitions and alliances collected in the database where made by European telecom operators. Obviously, results may not apply to other industries. Nevertheless, the findings may shed light on the choice between acquisitions versus alliances for those firms that belong to industries that have suffered a critical change in its environment. For instance, results may be especially relevant for banking and utilities industries, among others. Another limitation is that it was impossible to use the relative size of firms involved in business combinations as a control variable using the size of the company analyzed as a rough proxy. The wide range of target firms and partners collected in our sample made it impossible to get homogeneous data for this variable. An additional limitation is that our analysis has only considered two entry modes-alliances and acquisitions-and not greenfield investments, which are another option (see, for instance, Barkema & Vermeulen, 1998). However, this limitation is less important to our study, as telecom operators have usually expanded their boundaries using only acquisitions and alliances (Joshi et al., 1998; Trillas, 2002). Another limitation is that, in several cases, we do not know the value of the deal. In the case of alliances, this value is difficult to quantify, as firms do not usually have to pay for the whole value of the resources to which they gain access. And, in the case of acquisitions, this value is not always disclosed. Finally, another limitation of this study is that we only considered the number of telecom firms previously present in a specific field in order to construct the variable *Players*. In effect, other companies belonging to industries different from telecommunications could have entered into such a field. Nevertheless, this information is difficult to obtain, as this would imply having complete information of every entry in every field in which a telecom company has previously entered.

It seems, therefore, that further research using data from other industries and other countries is needed in order to reach conclusions that can be generalized to all acquisitions and alliances, irrespective of the investing firm's industry or home country. In addition, another future research line could be a more detailed study of the international expansion of telecom companies not only focusing in domestic versus international operations but also considering the different market opportunities stemming from the different countries entered through these operations.

#### NOTES

1. Abnormal returns are the variations in the stock price of a company directly attributable to a specific event—in this case, the formation of a strategic alliance. See, for instance, Bayona, Corredor, and Santamaría (2003), in the case of alliances, and Doukas and Travlos (1988), in the case of acquisitions.

2. Balakrishnan and Koza (1993), Cakici, Hessel, and Tandon (1996), Datta and Puia (1995), Doukas and Travlos (1988), Frame and Lastrapes (1998), or Singh and Montgomery (1987), among others, find these results.

3. Alliances formed after competitive shocks tend to be exclusive. This means that the partner is not available to other firms, at least for the same purposes of the already formed alliance, although firms with high bargaining power may use it to avoid explicit commitments of exclusivity alliances (García-Pont, 1999; Gulati et al., 2000). However, even in these cases, such firms with high bargaining power experiment lock in and lock out effects due to the costs associated to shift from one alliance or network to another (Gulati et al., 2000).

4. Partial acquisitions and, above all, minority equity exchanges could protect the firm against these early uncertainties because, by reducing the equity position, the firm is reducing their exposure to them. However, these acquisitions have the disadvantage of sharing the management of the target firm with other shareholders (López-Duarte & García-Canal, 2002), and they always imply taking an ownership position in all of the assets of the target. In addition, in the case of minority equity exchanges in which the firm does not have a controlling position in the target, the firm needs to sign an additional contract with the target in order to guarantee the access of its desired resources (García-Canal, 1996). Thus, partial acquisitions entail a higher commitment of resources than alliances—and, consequently, first-mover disadvantages—as well as some of the inconveniences of alliances—shared management and control of resources. 5. We also included in the sample those firms classified under SIC 4899 (communications services, not elsewhere classified) and described in the database under the field "Acquiror Short Business Description" as providers of telecommunications services. That was the case of British Telecom and Mannesmann.

6. This database contains, among much other data, the stock prices of all the companies publicly traded in all the major European stock exchanges. For our study, the relevant data of this database is the Total Return Index, which reflects the variation in the stock price of each company in relation to a specific date. This index is already prepared to conduct event studies and is corrected for dividend payments and equity operations. Therefore, this information is very useful in developing an event study. We also included in our final sample those cases in which the European telecom firm was a subsidiary of a European listed firm (five companies that carry out a total amount of 16 acquisitions and 12 alliances). To check for any bias stemming from the introduction of these events, we ran without those cases our models included in Tables 5 and 6, and our results regarding the independent variables remained unchanged.

7. Low (2001) and Reuer, Park, and Zollo (2001), among others, have shown that the date that appears in SDC does not always coincide with the first day in which the announcement of a business combination becomes public. Since the exact measure of this date is crucial for a correct application of the methodology described below, we verified all the announcement dates by means of systematic manual searches in that database.

8. Following McWilliams and Siegel (1997), we eliminated from the original sample all those observations in which there was further news concerning seasoned equity offerings, stock reductions, dividend payments, contracts with the state, other acquisitions or alliances different from those considered, or decisions concerning changes in a key executive of the studied companies.

9. We used as our reference index the Global Index provided by DataStream. This is a market index for each stock market, and is built using the same criteria for each market. Thus, the index includes the main listed firms in each market in terms of market capitalization (120 titles on average in each case) and is corrected by dividend payments as well as by seasoned equity offerings or stock reductions.

10. Bayona et al. (2003) introduce a dummy variable to control for the existence of confounding events in the estimation period, and they also used the market-adjusted returns model to calculate the abnormal returns. In this work, the authors conclude that alternative approaches used to calculate abnormal returns "often yield similar results" (Bayona et al. 2003: 32).

11. The method used to estimate these abnormal returns was the market model.

12. Bonardi (2004) and Sarkar, Cavusgil, and Aluakh (1999) show that internationalization and external growth were the logical responses by telecommunication companies to the scenario of market deregulation and the increasing levels of competition associated to it, which, in the case of Europe, would lead to a single market for telecommunications. According to this, we interpreted any external growth into the telecommunications firms' core business as a positioning movement toward the single market for telecommunications. We did not consider each country as a dif-

ferent market opportunity, because most of the works about internationalization processes consider only if the operations entail moving outside the home country of the firms when they try to face a scenario of deregulation. Specifically, in the European telecom industry, several works refer to the "single market of telecommunications." As in the case of alliances developing activities in Europe, we do not always have information about the specific countries involved (and the same happens in Latin America), and we decided not to analyze each country separately.

13. Note that *International* and *Diversification* are not mutually exclusive variables. If the operation considered implies diversification, the variable *Players* measures the number of European operators that were already present in the new specific field, regardless of whether the operation is inside or outside the home country of the firm.

14. Both items, as well as other financial data used in the following variables, were gathered from DataStream.

15. The results of these estimates are available upon request.

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