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Macro-players in stock markets

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Abstract  It is usually assumed that stock prices reflect a balance between large numbers of small individual sellers and buyers. However, over the past fifty years mutual funds and other institutional shareholders have assumed an ever increasing part of stock transactions: their assets, as a percentage of GDP, have been multiplied by more than one hundred. The paper presents evidence which shows that reactions to major shocks are often dominated by a small number of institutional players. Most often the market gets a wrong perception and inadequate understanding of such events because the relevant information (e.g. the fact that one mutual fund has sold several million shares) only becomes available weeks or months after the event, through reports to the Securities and Exchange Commission (SEC). Our observations suggest that there is a radical difference between small (< 0.5%) day-to-day price variations which may be due to the interplay of many agents and large (> 5%) price changes which, on the contrary, may be caused by massive sales (or purchases) by a few players. This suggests that the mechanisms which account for large returns are markedly different from those ruling small returns.

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1 Introduction

Very broadly speaking, there are two ways to represent stock markets and also two different methodologies to choose between them (Fig. 1). In the micro-player representation, the number of players is large enough to be treated by using statistical methods. In this case, each individual player has only a negligible impact on daily price changes. On the contrary, in the macro-player representation, the number of players is small and each one has a substantial impact not only on daily price changes but even on weekly or monthly price changes. In the second case a game theoretic approach would be more sensible than a statistical approach. The main objective of this paper is to find out which of these descriptions corresponds to the situation of markets in 2004. A first hint is provided by the sheer weight of the macro-players. In 1900, the share of financial institutions in total corporate stock outstanding was 6.7%, in 1974 it was 33%, in 2002 it was of the order of 50% (Kotz 1978, Statistical Abstract of the United States 2003, p. 755).

| TWO CLASSES OF STOCK MARKET | MECHANISMS AND MODELS |
|-----------------------------|-----------------------|
| MICRO–PLAYERS               |                       |
| Many (>100) players         |                       |
| Actions have a small effect (<0.1%) on stock prices |                       |
| Criterion: expected value of the stock |                       |
| MACRO–PLAYERS               |                       |
| Few (<5) players            |                       |
| Actions have a substantial effect (>2%) on stock prices |                       |
| Broad strategic objectives in which short term portfolio optimization is only one element |                       |

| TWO WAYS TO DISCRIMINATE BETWEEN THEM |
|---------------------------------------|
| OBSERVATION                           |
| Prior to developing a model, identify main mechanisms through observation of critical events. |
| MODELING                              |
| Rely on a priori assumptions about the behavior of agents and check whether the model’s implications match stylized facts. |

Fig.1 In this paper we want to discriminate between the micro- and macro-player representations by observing the reactions of stocks to major shocks. Trying to unravel market mechanisms prior to any attempt at constructing specific mathematical models can be labeled as ex-ante analysis, as opposed to ex-post analysis which in econometrics is the standard approach.

The purpose of this paper is to show that many (though not all) important phenomena that occur nowadays in stock markets belong to the second class. In order to make this point, we will use an approach which can be labelled as an ex-ante analysis. In what sense does it differ from the more commonly used ex-post analysis? In the ex-post analysis, one begins by building a mathematical
model whose predictions are then compared to a number of stylized facts. In econometrics, this is the approach which is used almost exclusively. In the ex-ante analysis one tries to design an “experiment” whose results give us a better insight into the mechanisms which are at work. When using the term “experiment” I do not mean a laboratory experiment with paid human subjects but rather a problem-oriented observation (also referred to as a quasi-experiment) selected and designed in order to shed new light on a specific phenomenon. In this paper I will use the ex-ante analysis in order to decide which of the micro- or macro-representation is more acceptable. More specifically, I will emphasize the importance of strategic investments as opposed to transactions based on expected value. In addition, by monitoring as closely as possible the behavior of shareholders in the weeks and days preceding a bankruptcy, I will analyze how investors react to the risk of bankruptcy. Although the paper relies on a number of case studies, I believe that the behaviors which will be identified have a fairly broad validity. To begin with, I consider the case of Kmart, the American retail store company.

2 Kmart: background information

As several of the cases to be considered below concern Kmart, it is in order to give some background information for this company. It was founded in 1899 by Sebastian Kresge and was called the Kresge company until 1977 when its name was changed to Kmart. As shown by Fig. 2a it has been a highly successful discount retailer for many decades, but fell into trouble in the 1980s. Eventually it had to ask for Chapter 11 bankruptcy protection in January 2002. The losing battle that Kmart fought against Wal-Mart can be summarized by the following figures.

|              | Kmart | Wal-Mart |
|--------------|-------|----------|
| Revenue 1990 [billion dollars] | 32    | 32       |
| Revenue 1994 [billion dollars]  | 36    | 83       |

In 1993, Kmart had to close 5% of its stores and in 1994 it experienced a loss of one billion dollars. These poor performances led to increased indebtedness and in 1996, the rating of its debt was lowered below investment grade. For a company of the size of Kmart to be rated at junk level is something which is not common. In subsequent years, Kmart continued to lose market shares to Wal-Mart. The fall of its share price shown in Fig. 2a is consistent with this loss of momentum. However, the trajectory of the stock price shown in Fig. 2b,c is fairly puzzling and raises the following questions:

Why did it increase by almost 100% between September 2000 and August 2001?

Why did it abruptly drop in January 2002 leading the company into bankruptcy?

1Symbolizing this trend was the fact that back in 1988, in the Oscar-winning film “Rainman”, the character played by Dustin Hoffman repeatedly refers to Kmart by saying “Kmart sucks” meaning that the stores were shabby and displayed low quality items.
In the expected value framework one would wish to know which innovations in Kmart’s growth perspectives justified these changes. In fact, there were none. Both the increase and the sharp fall were due to causes which had very little to do with Kmart’s growth perspectives. The 100% rise resulted from the strategic move of a single investor, Ronald Burkle, a billionaire and head of an investment firm.

3 Burkle’s deal with Kmart

Between October 2000 and October 2001, Burkle bought 7.2% of Kmart’s outstanding shares (Fig. 2b). We know this because an investor who wishes to buy more than 5% of the shares has to notify the Securities and Exchange Commission in advance which he did on October 13, 2000. In the present case we are fortunate to know his global strategy, something which is rarely the case. The purchase of Kmart shares was in fact part of a broader deal. Before 2001, Kmart had two grocery suppliers: Supervalue (for $2.3 billions) and Fleming (for $1.3 billion). In February 2001, that is to say 5 months after Burkle began his massive purchases, it became known that Kmart had chosen Fleming as exclusive supplier for the next 10 years, a deal whose value was estimated at $45 billions. As it happens, Burkle had a stake of almost 10% in Fleming. This makes the deal fairly clear. Burkle invests about $0.1 billion in Kmart shares and in return he gets an exclusivity contract that is worth 450 times more (CNN, February 7, 2001)
Fig.2b Kmart share price (July 2000 - December 2001). The insert shows how the price increase that took place between June 2000 and August 2001 (as delimited by the circle) fits into the broader picture; this increase was mainly due to the fact that a consortium led by billionaire Ronald Burkle purchased 7.2% of Kmart’s outstanding shares. Once Burkle’s share purchases stopped the price resumed its downward trend. Source: CNN Money (January 22, 2002).

Naturally, Kmart denied that there was any link between the two transactions. However, one should keep in mind that in 1999 Kmart tried to initiate a buyback program of its own shares for a total amount of $1 billion; assuming a price range from $5 to $10 per share, this represented between 20% and 40% of its outstanding shares. Unable to complete this program by itself because of its indebtedness, Kmart certainly relied on the deal with Burkle for implementing its objective, albeit on a smaller scale than planned initially.

To sum up, the 100% price increase in Fig.2b had much to do with Burkle and Fleming, but very little with Kmart itself. We now turn to the events which occurred in the weeks before Kmart’s bankruptcy.

4 The withdrawal of Fidelity from Kmart

In a CNN financial report of February 15, 2002 one reads:

Jim Lowell, editor of the newsletter “Fidelity Investor” said Fidelity recently slashed its holding in Kmart. Kmart had represented almost 10% of assets at Fidelity parent company Fidelity Management and Research Corporation (FMR) until recently, before the company slashed its position to 1.3%.

We posit that Fidelity’s move (which was certainly imitated by other institutional holders even though we don’t have explicit statements) accounts for much of Kmart’s stock price collapse in January 2002.
(Fig. 2c). Note that as holdings are reported only every three months we do not know when exactly the sales occurred. As a result the term “recently” used in the above excerpt of the CNN report is fairly elastic: it refers to a date comprised between November 15, 2001 and January 22, 2002.

Fig. 2c Kmart share price in January 2002. When Fidelity began to sell its shares, it became obvious that Kmart no longer had the support of its major institutional shareholders. Source: New York Times (January 2002).

FMR is the world’s largest investment fund with assets estimated in 2003 at about 1 trillion dollars. The parent company has several subsidiaries such as Fidelity Magellan, Fidelity Growth Company, Fidelity Leveraged Company which manage its funds. Unfortunately, in contrast to the previous case, we do not know precisely the reason of Fidelity’s move. Of course, if Kmart had been unable to avoid bankruptcy that would have been a sufficient motive for (as we explain below) share holders usually lose next to 100% of their assets in a bankruptcy. However, my reading is that Kmart was not driven into bankruptcy by its debt but rather by the withdrawal of its major share holders. That feeling relies on the fact that Kmart’s assets in terms of real estate (land and stores) was estimated at $15 billions in a report published by the Deutsche Bank in July 2004; no doubt that, in early 2002 prior to the bankruptcy, the value of this asset was substantially larger. As Kmart’s debt never exceeded $4 billions, it was not in an Enron-like situation where the debt was actually larger than the real worth of the assets.

Naturally, if major investors withdraw their support, if the company’s debt is downgraded by rating agencies (which indeed happened on January 17, 2002), then it cannot get new short-term loans and bankruptcy becomes unavoidable. At this point there is a question for which we do not yet have a satisfactory answer. We know that Fidelity (along with other mutual funds) sold its shares, but

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2 In late July 2004 Kmart actually sold 78 of its 2000 stores for about $1 billion.
we do not know who bought them. In a climate where there are persistent rumors about a possible bankruptcy there must have been very little incentive for any investor to buy these shares even at a fraction of their initial price. Of course, on the NYSE it is the duty of market makers to ensure market fluidity, but it is difficult to understand how can they fulfill this task when there are no buyers whatsoever.

Before we turn to the next episode we need to better understand what happens once a corporation has filed for chapter 11 bankruptcy protection, especially with respect to its shares and shareholders.

5 Impact of bankruptcy on stocks

After the bankruptcy, some of the major debt holders usually provide short-term cash to the bankrupt company; in return, they get highest priority on the list of the creditors. On the contrary, common share holders are listed at the bottom. However, it should be noted that a company is not automatically delisted from the exchange after asking for bankruptcy protection. The only immediate change is the fact that the ticker symbol becomes followed by the letter Q. Thus Kmart’s ticker symbol was changed from KM to KMQ. Incidentally, one week after the bankruptcy the price stood at $ 1.4, more than double the $ 0.66 the stock was worth the day the bankruptcy was declared; but this improvement did not last very long. On the New York Stock Exchange the criteria for continued listing include a requirement that a company’s stock trade at a minimum average price of 1 dollar over a 30-day period. In the case of Kmart, the share traded under the $ 1 threshold from July to December 2002 and, as a result, it was delisted from the NYSE in December. But even after that, the stock continued to be traded in Pink Streets, an over the counter exchange. Yet, when Kmart emerged from bankruptcy on May 6, 2003, it canceled its old stock and issued new shares. At this point the old share holders lost all their remaining assets. Half of the stock issued on May 6, went to creditor Edward Lampert. The rest of the shares went to other creditors. With 49% of the shares, Lampert got complete control over Kmart. He and some of his associates, including William Crowley, soon after became part of the board of directors comprising nine people (Detroit Free Press, May 6, 2003). Thus began a new phase of Kmart’s history to which we turn now.

6 Lampert’s era

Although still a fairly young man (he is born in 1963) Edward Lampert was in 2003 one of the stars of the hedge fund industry; he was listed in fourth position among the top 10 fund managers with an annual pay of $ 420 million (Georges Soros came first on this list with $ 750 million). Fig. 2d shows a strong and steady price increase after Kmart emerged from bankruptcy.
Fig. 2d Kmart share price (May 2003 - September 2004) After Kmart emerged from bankruptcy, 49% of its shares were in the hands of ESL Investments, one of its creditors. SEC reports show that over 2003-2004 ESL bought a substantial slice of the remaining float. Source: [http://finance.yahoo.com](http://finance.yahoo.com) table 1.

Does this mean that Kmart had solved its problems and was up for a new start? Certainly not. Kmart’s market share continued to shrink and in fact at a faster rate than before the bankruptcy. In 2003, comparable-store sales dropped by 30% and, even more worrying, the rate accelerated from 3.2% in the first quarter to 13% in the last quarter. Yet, over that time interval the share price more than doubled. How can one explain that?

The answer is very simple. There was a permanent flow of purchases by Lampert’s hedge fund (see table 1). It should be noted that all these transactions were performed in the Non-Open market. In this market, the price is settled by a prior agreement between buyers and sellers. As all the shares were in the hands of various institutions, it is very likely that strategic considerations played a big role in these transactions. The financial situation of Kmart did indeed improve but only because it sold some of this stores to Sears, Roebuck and Co. and to Home Depot

### 7 Hints about the future of Kmart

As the price rise documented in Fig. 2d was largely disconnected from underlying fundamentals, it can hardly be expected that it will continue for long. In fact, it will continue until Lampert decides that his strategy no longer requires the price to rise. Several analysts expect that Lampert will continue to sell the most valuable assets of Kmart before eventually taking it completely out of the retail business. Whether that can be done in the present framework or requires the liquidation of the company is a matter of debate. As one analyst lucidly commented, now that Kmart is under the control of ESL,

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3 Incidentally, it can be noted that Lampert also owned 28% of Sears, Roebuck and Co.


Table 1  Purchases of Kmart shares by Lampert’s hedge fund in 2003-2004

| Year | Date     | Number of shares (million shares) |
|------|----------|-----------------------------------|
| 1    | 2003     | June 30                           |
| 2    | 2003     | Oct. 23                           |
| 3    | 2003     | Nov. 03                           |
| 4    | 2003     | Feb. 12                           |
| 5    | 2004     | Apr. 27                           |
| 6    | 2004     | Jul. 1                            |
| 7    | 2004     | Jul. 16                           |
| 8    | 2004     | Aug. 18                           |
|      |          | Total 19.4                        |
| % of shares | 23%   |
| % of float  | 46%   |

Notes: As of August 24, 2004, Lampert’s hedge fund, ESL Investments, owned directly or indirectly, 82% of Kmart shares, a stake consisting of its initial stake of 49% as a creditor of Kmart plus the above 23% which it purchased over 2003 and 2004. All the acquisitions listed in the table were made in the Non-Open-Market. Source: Insider and Form 144 Filings - ESL Investments - [http://biz.yahoo.com/t/97/342.html](http://biz.yahoo.com/t/97/342.html)

Any analysis based on Kmart’s fundamentals becomes irrelevant because what is good for Kmart is not necessarily good for ESL and vice versa. As of September 4, 2004 about 25% of the shares were sold short\(^4\), a transaction which generates a profit only if the price falls.

**Remark** With over 80% of the shares in the hands of ESL Investments one would expect the trading volume for Kmart’s shares to be markedly lower than for other corporations whose ownership is less concentrated. Yet, one observes exactly the opposite. Between July and September 2004, an average 2.7 million shares were traded daily which represents 3% of the shares outstanding; that figure is about 150 times higher than for General Electric and 11 times higher than for IBM. Why is Kmart trading volume one or two orders of magnitude higher than such widely traded stocks as GE or IBM? This remains an open question.

### 8  Summary of Kmart’s case

Let us summarize what we learned from this case-study.

1) Until 1999-2000 there was a connection between Kmart’s share price and its achievements as a discount retailer.

2) After October 2000, there is a one-year episode marked by a strong price rise due to a deal with a supplier which bears no relationship whatsoever with Kmart’s performances.

\(^4\)This percentage is well above standard short percentages: for instance it was equal to 0.30% for General Electric and 0.82% for IBM
3) The bankruptcy occurred when one of the major share holders withdrew its support. Although it is difficult to distinguish with certainty between cause and consequence, the question must be examined in the light of what happened subsequently, namely the fact that the corporation fell under the control of Lampert’s hedge fund.

4) The 700% price increase between May 2003 and September 2004 was completely at variance with the evolution of Kmart’s growth fundamentals.

Kmart was selected because it went through a bankruptcy. The idea was that a major shock would reveal features about the behavior of share holders which are relatively obscured and hidden in more ordinary conditions. However, similar mechanisms are at work also in cases characterized by big shocks even in the absence of a bankruptcy. This is illustrated by the following example.

9 Converium

Converium (NYSE: CHR) is a Swiss reinsurer which ranks among the top 10 reinsurers and employs approximatively 850 people in 23 countries around the world. Why did I select Converium among many other possible cases? My attention was attracted to it because it experienced a sharp price fall in July 2004. Subsequently I discovered that one of our colleagues, econophysicist Michel Dacorogna, is a senior member of its Risk Modeling team; naturally, this further increased my interest in the company. The graph (Fig. 3) of its share price is particularly striking because it has been very stable during two years before dropping sharply by 50% on July 21, 2004. After this date it continued to fall

![Converium share price graph](https://example.com/Converium_graph.png)

**Fig.3 Converium share price (September 2003 - September 2004).** Converium, a Swiss reinsurer began to be listed on the New York Stock Exchange in January 2002. From that date to mid-July 2004 its price remained within a fairly narrow margin of 25 - 5 dollars. Then, on July 21, it suddenly dropped 50% after the company’s announcement that it will have to increase its reserves. Source: [http://finance.yahoo.com](http://finance.yahoo.com).
albeit more slowly. As of September 23, 2004 its share price was as low as $ 7.80 which means that it had been divided by more than 4 with respect to the price level of January 2004. The comments offered by analysts in the wake of the fall of July 21 were not very convincing. They attributed the fall to a net loss amounting to 22% of its capitalization and to the fact that it had to strengthen its reserves by a similar amount. Although fairly serious, such a problem did not imperil the existence of the company especially because the loss was limited to its activity in the United States\(^5\). A more tangible explanation came two weeks later, on August 3 2004, in the form of the following statement made by the company:

Converium Holding hereby informs that Fidelity International (based in Hamilton, Bermuda) has reduced its holding in Converium from 9.87% to 3.81%.

As is common in such announcements, it did not say when exactly Fidelity had sold its shares\(^6\). As in the case of Kmart in January 2002, a flow of bad news followed. For instance, on September 1, Standard and Poor’s cut the rating of Converium’s North America to BBB, just one notch above junk status. The rating of Converium AG, the Swiss unit was also lowered. In this respect, it should be noted that in principle the role of rating agencies is to foresee possible financial problems ahead of the “market”, whereas in this case as well as in many others (e.g. Enron, Kmart, WorlCom) their reactions followed the announcement made by the company, in the present case by more than one month.

At first sight, one may be tempted to think that these reactions were simply the normal consequence of a change in the growth fundamentals of the company. However, the fact that on August 10, Capital Group, another mutual fund, increased its stake in Converium from 4.05% to 5.34% shows that the fundamentals were not read in the same way by all the players. In fact, it seems it was rather a showdown between two groups of players.

On September 15, 2004 came the first rumors that Converium could become the target of a possible takeover, an operation that its low stock price facilitated. The most widely named potential buyers were Munich Re and Berkshire Hathaway, Warren Buffet’s company. On September 17, Converium made known that its discussions to enter into a possible partnership with these two companies were nearing a successful conclusion.

\(^5\)As one of the main activities of Converium was the reassurance of airspace industries, it is possible that the loss was a consequence of 9/11

\(^6\)The reaction of the market to the information revealed on July 21 was particularly swift, but this was largely due to the fact that the “market” was a small group of fund managers, among whom the manager of Fidelity International had a leading role.
10 Generalizations

To what extent is it possible to generalize the results of these case-studies? One can give the following answers.

The Kmart episode was not an isolated example. As a matter of fact, the strategy Lampert used at Kmart had been used previously in others of its acquisitions such as Autonation (NYSE:AN), America’s largest retailer of new and used vehicles, Autozone (NYSE: AZO), Deluxe (NYSE: DLX) and finally Sears, Roebuck and Co (NYSE: S).

The fact that an investment fund reduces its stake in a company to a considerable extent in a short time interval is relatively common. Table 2 gives a number of illustrations over 2002-2004 for FMR which naturally is only one of the giant mutual funds (albeit the largest). Usually the growth fundamentals of a company do not change sharply in a few months which means that such massive sales (or purchases) pursued broader strategic objectives.

| Date       | Company          | Ticker symbol | Initial stake [%] | Subsequent stake [%] | Price variation [%] |
|------------|------------------|---------------|-------------------|----------------------|--------------------|
| 1 2002 Dec.| Teradyne         | NYSE:TER      | 15                | 8.24                 | 61                 |
| 2 2003 Dec.| Delta Airlines   | NYSE:DAL      | 7.3               | 0.5                  | 72                 |
| 3 2003 Oct.| Forrester Research | NASDAQ:NM | 9.4               | 2.8                  | 30                 |
| 4 2004 Feb.| Boeing           | NYSE:BA       | 2.2               | 3.6                  | 17                 |

Notes: FMR is the world’s largest investment fund with about one trillion dollar under management (which represents 10% of the US GDP). The price variation refers to the quarter during which the sales or purchases were made (we do not know the exact dates of the transactions). Earlier FMR moves include the reduction of its stake in (i) United Airlines from 6% to 2% (June 1994), (ii) Apple Computer from 11% to 2.5% (August 1995), (iii) Technology stocks (end of 1995), (iv) US Airways from 11.3% to 5.8% (May 1996), (v) Digital Equipment Corporation from 13.7% to 7% (June 1996), (vi) Chrysler Corporation from 12.2% to 7.8% (June 1996) Besides FMR there are several other mutual funds giants (e.g. Vanguard Group, Capital Research and Management, State Street) whose moves have also a substantial impact on stock prices.

Sources: Boston Business Journal (Dec. 10 2002, Oct. 10 2003); Atlanta Business Chronicle (Dec. 19 2003); The News Tribune of Tacoma, Washington (Feb. 18 2004), New York Times (June 11 1994, January 12 1996, Aug. 15 1996); Wall Street Journal (Oct. 12 1995); USA Today (May 9 1996); Boston Herald (July 11 1996).

11 Conclusion

The main message of this paper is the observation that many of the major shocks to which companies are confronted are due to the moves of a small number of investment funds. In the case of Kmart we have seen that single investors played a central role in each of the three successive episodes which sealed the fate of the corporation between 2000 and 2004: first it was Burkle, then FMR and finally
Lampert.

The key role played by major investment funds can be further illustrated by comparing the major holders of three airline companies, namely American Airlines, Delta Airlines, and US Airways. Table 3 summarizes the information as of September 10, 2004.

| Holder                         | Stake in American Air. [%] | Stake in Delta Air. [%] | Stake in US Air. [%] |
|--------------------------------|-----------------------------|------------------------|---------------------|
| **A  Insiders and rule 144 holders** |                             |                        |                     |
| Retirement System of Alabama   | <1                          | <1                     | 79                  |
| **B  Institutions**            |                             |                        |                     |
| PAR Capital Management         | 9.6                         | 6.6                    |                     |
| Prime Cap Management           | 8.8                         | 10                     |                     |
| Lord Abbet                     | 5.4                         | 4.8                    |                     |
| Brandes Investment Partners    | 3.3                         | 9.4                    |                     |
| Wellington Management          | 4.9                         |                        |                     |
| Stavo Asset Management         | 4.5                         |                        |                     |
| Barclays Bank                  | 4.0                         |                        |                     |
| Capital Guardian Trust         |                            | 9.1                    |                     |
| Capital Research and Management|                             | 5.5                    |                     |
| UBS Global Asset               |                             | 3.9                    |                     |
| State Street                   |                             | 3.2                    |                     |
| Baupost Group                  |                             |                        | 4.3                 |
| Farallon Capital Management    |                             |                        | 1.6                 |
| **C  Funds**                   |                             |                        |                     |
| Vanguard/Primecap              | 5.8                         | 6.5                    |                     |
| Lord Abbett Fund               | 2.2                         | 2.7                    |                     |
| Vanguard Horizon               | 1.9                         | 2.3                    |                     |
| Fidelity Growth                | 9.9                         |                        |                     |
| Vanguard Windsor Fund          | 2.0                         |                        |                     |
| **Percentage held by institutional owners** |                     | **97**                 | **97**              | **88**              |

Notes: Although it may not be of great relevance, especially in major shocks, we retained the standard distinction between insiders and rule 144 holders (A), institutions (B), and funds (C). Most of the institutions which have substantial stakes in both American and Delta also hold shares of other airlines such as Continental, NorthWest or SouthWest. The table documents the sharp difference between the ownership structure of American and Delta on the one hand and US Air on the other hand. The giant mutual funds have no longer any substantial stake in US Air.

Source: [http://finance.yahoo.com](http://finance.yahoo.com)

Three significant observations can be made.

1) Several institutional holders have a stake in both American and Delta. Examination of other airlines (e.g. Continental, NorthWest, Southwest) shows that these players also hold substantial stakes
in those other airlines.

2) There is a fundamental difference between the major holders of American and Delta on the one hand and those of US Airways on the other. In the latter we do not find any major investment funds with a substantial (say over 1%) stake. Most of the shares are in the hands of the Alabama Retirement Fund which, through its links with Social Security, is probably partly funded by federal money. This striking difference is certainly to be attributed to the fact that US Airways went through bankruptcy in August 2002. As seen previously, stocks are likely to lose all their worth in a bankruptcy process. For major holders the main problem therefore is to be able to sell before the price has collapsed. Naturally, such tactics are double edged because the withdrawal of a major holder may drive down the market price to a point which makes bankruptcy ineluctable.

3) On financial websites such as Yahoo, investment companies are listed apart from the funds itself. One may wonder if such a distinction is really relevant. Consider for instance the Vanguard Group which offers more than 100 funds. It can be admitted that in ordinary day-to-day operations, each fund has some autonomy. However, in critical junctures (such as a bankruptcy risk) all funds tend to follow the same tactic as can be seen from the fact that all Vanguard funds left US Airways as it was stumbling toward its first bankruptcy.\footnote{Furthermore different investment companies may have overlapping interest; as an example one can mention that Wellington Management, one of the oldest American money management firm, manages 16 of the funds offered by Vanguard.}

Fig. 4 shows that, since 1945, mutual funds experienced an exponential growth which was shortly interrupted only by the bear market of 1968-1978. As for any exponential growth, the beginnings were inconspicuous. It is only in recent years that mutual funds were able to get a firm grip on American stock markets. If this evolution continues the conception based on micro-players will become less and less relevant.

In a previous paper (Roehner 2005) it was shown that, through buyback programs, corporations can influence the price level of their own stock. To make that point we did not have to resort to microeconomic analysis as we did in the present paper; why did the present study require behavior analysis at the level of individual players? The answer is obvious. We wanted to scrutinize the economic rationale of the moves of major players and in order to do that one has to understand and weigh their actions in detail. Such an approach is complimentary to the comprehensive macrodynamic analysis of market structure carried out by other researchers such as for instance Elroy Dimson et al. (2002), Rosario Mantegna et al. (2000) or Didier Sornette (2003). Finally, there is an important question which we did not consider and which should be addressed in a subsequent study. What is the kind of interaction between macro-players. Is it a competitive or cooperative linkage, or perhaps both depending on circumstances?
Fig. 4 Growth of American mutual funds compared to the growth of the US gross domestic product (1945-2000). Between 1947 and 2000 the assets of mutual funds as a proportion of GDP have been multiplied by a factor of the order of 100. We had to rely on two different series because the pre-1970 data available in the Historical Statistics of the United States refer to total assets (i.e. stocks plus bonds), whereas the Statistical Abstract more specifically gives equity assets. Both trajectories are exponential. Naturally, mutual funds represent only one class (albeit the most important) of institutional share holders besides insurance companies, banks, state retirement funds, hedge funds, etc. Source: Historical Statistics of the US (1975), Statistical Abstract of the US (various years).

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A Appendix A: Sources and secretiveness

In many respects this study would not have been possible without the Internet. In pre-Internet times, one would have had to rely on archives of newspapers and economic magazines. Because of the impossibility of performing broad keyword searches, many relevant papers would not have been identified. In addition, locating and accessing the relevant archives in various research libraries would have made the whole process utterly time-consuming. Apart from the Internet we also used Lexis-Nexis, a newspaper data base which is available to subscribers (many research libraries offer this service). However, even with these tools, it was not always possible to get all the information that would have been needed. There were two main obstacles. (i) Some information is not made public. For instance, hedge funds are not required to report their positions, trading activity and creditworthiness. By 2000, there were about 5,800 hedge funds, most of them registered off-shore to avoid taxation, totaling $300 billion in capital (Derivatives Study Center, http://www.financialpolicy.org). As an illustration of this secretiveness, one can mention the episode of the speculation against the British pound in 1992 which led to its withdrawal from the European Monetary System. This destabilization is commonly attributed to Georges Soros’ hedge fund, but due to the lack of any official statement it is still impossible to confirm or to disprove this assertion.

ii) A second problem concerns the fact that even when it is made public the relevant information often comes too late. The major source of information about ownership are the reports required by the Securities and Exchange Commission in which companies document their most recent moves. Unfortunately, these reports are published only every quarter (in some cases every semester) which means that the information will come weeks after the move has affected price levels. For instance, in the case of Kmart we learned about the the withdrawal of Fidelity Management by a report that came on February 2, 2002 that is to say almost one month after the price collapse began and two weeks after Kmart filed for bankruptcy protection.

There is a last point which has to be mentioned. So far we did not consider the link between mutual funds and their subscribers. One could argue that subscribers can influence the behavior of fund managers. This would be true if they could get informed in time. As we have seen, this is not the case: not only do they learn about major moves well after the event, but usually they are also unable to know how fund managers who sit as directors on corporate boards voted in crucial occasions 8.

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8In January 2003, in spite of vocal opposition led by Fidelity Investments and Vanguard, the Securities and Exchange Commission, voted in favor of disclosure of proxy votes by mutual funds and established August 31, 2004 as the deadline for disclosure of votes cast during the year ending June 30, 2004 (see “Behind the curtain” by the AFL-CIO Office of Investment, September 2004). We observe once again that this decision makes information available to shareholders only months after the events took place.
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