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of Retailers and Manufacturers
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Abstract

In this paper we review the relative performance of retailers and manufacturers on stock markets in the US, UK, and France over the last two decades. The 2 major conclusions are that ,using Total Shareholder Return (TSR) as an evaluation criterion, retailers outperformed manufacturers over this time period in all three countries; and that this out-performance of retailer stocks can be fully explained by the different risk exposure of a retailer portfolio when compared with a manufacturer portfolio and not by the power gain of retailers.

Introduction

In this paper we review the relative performance over the last two decades of retailers and manufacturers on stock markets in the US, UK, and France. This question is implicitly addressed by investors. Indeed, investors continuously seek arbitrage opportunities in and between these two sectors. A gradual shift in performance between the sectors would indeed generate an arbitrage opportunity. It is our view that the stock market thus provides excellent “outside in” metrics that can be applied to assess the question of relative economic performance between the retail and manufacturing sectors.

There are further arguments favouring a stock market based approach when comparing retailers with manufacturers internationally. Most marketing studies of corporate or sector-wide performance might be described as taking an “inside out” approach based on operational measures such as sales growth, market share, supply cost and/or firm profitability. Trends in accounting performance indicators (like sales, operating cost, or profitability) are indeed useful to understand the evolution of particular aspects of operational performance. But such analyses do not provide clear answers on the question of sector performance.

In contrast, the analysis of total shareholder returns (TSR) over a long enough time period provides a comprehensive measure of a potential shift in economic performance and or future potential of particular economic sectors. Short-run speculation might perturb financial markets temporarily, but over longer periods of time (as is the case in our study which covers a 16 year period) financial markets do provide an objective assessment of the relative strengths of a firm, of a portfolio of firms, or of an economic sector. Out-performance in TSRs does connote a change in economic potential due to one or both of two reasons: (1) a predictable growth in economic profit over time (with increases in share price resulting from the simple logic that future returns exceed current returns); and/or (2) an unexpectedly favourable shift in the time profile of future economic profits. Hence, it is our view that TSRs, when examined over a sufficiently long time horizon, provide a good “objective” measure for the question motivating this paper.

Actually, the current view of the marketing literature also argues for bringing the perspective of the financial markets into the study of marketing phenomena (Srivastava, Shervani and Fahey 1998, Rust, Ambler, Carpenter, Kumar and Srivastava 2004). We do find some studies in marketing that have focused on stock market performance. These studies have focused on new products and sales promotions (Pauwels, Silva-Risso, Srinivasan, and Hanssens 2004), advertising and R&D (Mizik and Jacobsen 2003), or the addition of internet channels of distribution (Geyskens, Gielens and Dekimpe 2002). However, all of these authors have mostly addressed specific marketing actions, and not the more general sector questions addressed here.

Furthermore, and this is very relevant for our study, international comparisons of TSRs are more straightforward than international comparisons based on accounting performance measures. The interpretation of TSR performance also offers its own rewards in terms of insights that complement those that follow from an analysis based on direct operational measures. Beyond the introduction of a new methodology to assess the relative strengths of economic sectors, we like to think that these insights provide the second major contribution of our paper.

The one previous stock market analysis of retailers and manufacturers is due to Messinger and Narasimhan (1995). It is based on traditional CAPM methodology, which examines a single risk factor pertaining to the correlation (or “beta”) of a particular portfolio with the overall market. One of the strongest results of modern finance theory is that any examination of stock market returns must go beyond CAPM and take into account several financial risk dimensions (Fama and French, 1992 and 1993; Fama, French, Booth, and Siquefield, 1993; Carhart, 1997). This paper uses these insights by following the methodology presented by Gompers, Ishii and Metrick (2003) in the context of their analysis of the effect of governance practices on equity prices. This methodology introduces three additional risk factors pertaining to firm size, value versus growth stock characteristics, and stock price momentum. Our analysis thus substantially extends, in time horizon and methodology, the one previous stock market study on the question of the relative performance of retailers and manufacturers.

This question of relative performance of these two sectors has preoccupied marketing practitioners and academics for several decades. The academic literature increasingly supports conventional industry wisdom that retailers have gained power relative to their suppliers (Corstjens and Lal 2000, Dobson 2005). Some studies seem to indicate that this increased power has led retailers to extract more resources from manufacturers (Dreze and Bell 2003, Ramarao 2001, Wilkie, Desrochers and Grundlach 2002). At the category level (a local market for refrigerated juice and canned tuna), the analysis of Kadiyali, Chintagunta and Vilcassem (2000) shows that retailers appropriate a larger share of channel profits than manufacturers. Bowman (1997) and Bloom and Perry (2001) provide evidence that large retailers, Wal-Mart in particular, reduce the profitability of their suppliers by lowering transaction prices and demanding higher service levels. That these increased resources made available to retailers, or that increased channel power has stimulated retailer profitability more than the profitability of their suppliers remains much less clear-cut, and motivates the analysis presented in this paper.

At the sector level, the empirical studies by Ailawadi, Borin and Farris (1995) and Messinger and Narasimhan (1995) indicate that in the 80's and early 90's the relative profitability of manufacturers and retailers did not change. However, one ought to recognize that the balance between both sectors has continued to experience remarkable transformation. Retail consolidation (e.g. Stern and Weitz 1997; Dobson, Waterson and Davies 2003), and internationalization (e.g. Leknes and Carr 2004), the further development of increasingly powerful retail owned brands (e.g. Ryan 2003; Steiner 2004), the continued massive number of unsuccessful new products introduced every year by manufacturers, the scope expansion of retailers by appropriating new product categories and services and their investment in improved technology are all major exponents of this transformation. This ongoing transformation makes it even more imperative to re-examine the performance balance on the basis of recent data and state-of—the-art methodology. In sum, the time period of our study ranges from 1988 to 2003, which is a horizon of considerable transformation, and one not yet studied in this way in the literature.

The temporal argument is not the only one pleading for updating previous studies. The geographic aspect ought to be invoked as well. The transformation of the retail and manufacturing sectors over the past decades has not been limited solely to the US. Yet, the academic evidence on retailing versus manufacturing performance is based nearly exclusively on US data. The immediate relevance of US data to other countries can always be questioned. In the present paper we study, in addition to the US, two of the most active European countries from a retail and manufacturing perspective, the UK and France. This will allow us to reply to an immediate question regarding the relative performance of manufacturers and retailers on both sides of the Atlantic. Have both sides behaved in a similar way over the time period studied? Although global trends do exist for both sectors, the rate at which these trends have materialised has differed in France, the UK and US. Furthermore the economic and regulatory environments for retailers and manufacturers differ in these 3 countries as well, with commensurate impact on their economic and financial performance. We review these trends in more detail in the next section, but before doing so we review our main results.

Our analysis has generated five striking results. First, and counter to the previous empirical marketing studies that could not detect any statistically significant deviation, we show that in all three countries retailers significantly outperformed manufacturers marketing terms of TSR.

Second, this out-performance doesn't appear to be caused by a tilt in the power balance in favour of retailers, but by investors' assessment that a greater non-diversifiable risk born by retail stocks justifies a higher return. The appropriate consideration of stock market risk, which modern financial methodology allows, thus fully explains the excess stock market performance of retailers, with one caveat that concerns the 1998-2003 period in the US. Over that period, and in that geography, the retail portfolio presents an excess performance even after controlling for stock market risk. This result further makes the case for the methodology used in this paper since it provides an example of excess performance going beyond the traditional risk factors.

Third, our results show remarkable differences as well as similarities across the markets studied. We found that retailers and manufacturers in France and the US strongly outperformed their colleagues in the UK. Notwithstanding the idiosyncrasies of our two sectors in these respective countries, we did

find that in all three countries retailers significantly outperformed their suppliers. In their relative assessment of both sectors, investors thus seemed to have focused more on the intrinsic nature of these two sectors (including risk) and on their relative performances, even when the pace of economic returns in these countries differed considerably.

Our fourth result runs counter the predictions of standard financial theory. Whereas the latter documents a beneficial “small firm effect” for investors, we provide support for the fact that, when it comes to both the retailing and the manufacturing sectors, larger players have outperformed smaller players on the three stock markets examined over this period. This suggests that traditional economic issues of market power and scale have, over the period of our study, outweighed the traditional financial market benefits favouring smaller firms.

Fifth, and counter to conventional business wisdom, our results do provide evidence for the statement that retailers and manufacturers are not locked into a constant sum battle, at least from an investor’s point of view. Stock market returns indeed attest that the economic interests of retailers and manufacturers appear more linked than in opposition.

The remainder of the paper is structured in the following way. Section 2 presents some of the existing evidence on the many changes that have affected the retail and manufacturing sectors in the US, France and the UK over the time horizon studied. Section 3 describes the data analyzed in this paper. In Section 4, we present the methodology used in our analysis and discuss the results thus generated. Section 5 concludes the paper with a summary of results and possible directions for future research.

Trends having affected manufacturing and retail sectors internationally

Having laid out the major arguments motivating our study, we now describe, in greater depth, some of the main trends that have affected the retail and manufacturing sectors world-wide over the last two decades. These pertain to the apparent power shift in favour of retailers, the increased concentration witnessed over this period, the increased importance of private label, and the internationalization of the retail sector. We further examine factors that are less commonly mentioned such as new product activity and retailer scope, to close with a final comment on the economic diversity that appears when one starts looking beyond the US.

Power

The increased power of retailers, their increased concentration and by implication their improved profitability, has been over the last years a recurring theme in the community of marketing practitioners (*Progressive Grocer* 1984-2001, Cappo 2003, Mitchell 2004, Kumar 2005). Since the previous sector studies (Messinger et al., 95 and Ailawadi et al., 95) the results of a yearly study by *Progressive Grocer* illustrates the strong and continued power gains achieved by US retailers over their suppliers, as perceived by US retailers and manufacturers (Figure 1).

[Figure 1 about here]

Concentration

The comparison of retailer and manufacturer concentration ratios provides further evidence for the relative increase in retailer power. Although retail trade, both in the US and in Europe, is less concentrated than the manufacturer sector (Tables 1a and 1b), the growth in retail concentration over our period of observation is greater than that observed in manufacturing (Table 2). Modern retailing is a younger industry than manufacturing (as will be shown in Table 9).

[Tables 1a, 1b and 2 about here]

Private Label

The increase of private label (retailer owned brands) has been another factor that favors the performance of retailers (Table 3). Over our observation period, the positioning of retailer owned brands has followed the trajectory of: ‘cheap and nasty’, to ‘cheap’, to ‘par quality’ and sometimes even ‘destination’. This evolution has led to private labels’ triple role for retailers: retailer differentiation, retailer bargaining power vis-à-vis manufacturers, and improved profit margins (Mills, 1995; Corstjens and Lal,2000).

Steiner (2004), citing sources from the US and Europe, asserts that private label is also increasing in other retail sectors other than grocery, and particularly in the apparel and in the athletic shoes retail sectors.

[Table 3 about here]

Internationalization

Retailers have also accelerated their internationalization. Again, the internationalization process started much earlier for manufacturers, and was already well established by the 1980’s (Bartlett and Goshal, 1989). Its increase, over our time horizon, has thus been less spectacular as that experienced by a much younger retailing industry, as Table 4 evidences.

[Table 4 about here]

The accelerated international expansion of retailers provides further support for their increased vertical power. We note again that it is less clear whether this process of international expansion has actually improved the economic performance of retailers vis-à-vis manufacturers. Although internationalization provides more vertical bargaining scope for retailers, the early phases of this process are very costly. Most retailers that have expanded internationally have tended to be more profitable in their home markets than in the foreign markets they entered (Table 9).

New Product Activity

The extensive and rather unsuccessful new product activity by manufacturers during our period of observation should provide retailers with stronger bargaining position vis-à-vis manufacturers. Studies by Ernst &Young in the US and ACNielsen in Europe during the late 90’s show that around 80,000 to

100,000 new products (stock keeping units) are introduced each year in countries like France, the UK and US by branded goods manufacturers in consumer goods industries (Ernst & Young et al. 1998, Ernst & Young and ACNielsen-Bases 2000). Defining success of new products by the criterion of ‘*still being on the retail shelves 2 years after introduction*’, new product success, according to these studies, is situated anywhere between 4 and 10% depending on the product category, the new product characteristics and the marketing support for the new products. This massive sub-optimal new product activity by manufacturers and the relative shortage of retail shelf space lends further support to the hypothesis that retailers, on this basis, should have outperformed manufacturers over our period of observation.

Retailer Scope

Over our observation period retailers have expanded their **scope** by selling more ‘product categories’ to their captive shoppers. Banking and insurance services, telephone services, car sales, travel services and real estate services are some examples of retailers’ scope expansion. Although some manufacturers have added adjacent categories to their traditional product categories (organically or by mergers and acquisitions) this has occurred on a much more limited scale. It would therefore be likely that this cross-selling to their shoppers has improved retailers’ financial performance and thereby favored their performance relative to manufacturers.

Additional Factors Affecting Performance

Additional factors supporting retailers out-performance over manufacturers during our period of observation are the use of more sophisticated technology in the management of the retailers’ logistics and in-store activities (EDI, scanning, and other IT tools). Finally, the use of loyalty systems during our period of analysis, aimed at increasing consumer-switching costs, should also have reinforced retailer dominance in financial performance.

Economic diversity when looking beyond the US

Previous studies have focused exclusively on the US. It is worthwhile to compare the relative performance of retailers and manufacturers internationally because the French, UK and US consumer goods scenes are substantially different. The three countries differ in terms of their concentration, regulatory environment, and the importance of private label in the retailer’s assortment.

Retail **concentration** is highest in France and lowest in the US. Growth in concentration has been steepest in France and the US and slowest in the UK (Table 5). Given a relatively constant concentration (be it at a high level in many product categories) on the manufacturer side, one would expect retailers' excess performance over manufacturers to be stronger in the US and France, and weaker in the UK.

[Table 5 about here]

France has seen stronger retail regulation over our observation period relative to the UK and the US, both of which, in their Anglo-Saxon tradition, have been more liberal in their regulatory activities. In order to protect smaller players (both manufacturers and retailers) from being crushed by huge players in a continuously concentrating French retail market, the 1996 Raffarin and Gallant Laws, effectively limited new store openings and controlled price wars by excluding certain types of manufacturer support to retailers to be passed on to the final consumer. Government intervention of this type has been much more severe in France than ever seen in the UK or in the US. It resulted, at the time of the legislation's introduction, in price increases and a strong increase in the share price of French retailers. We therefore might expect the out-performance of French retailers over their suppliers to be stronger than for their UK and American colleagues. (Rey and Tirole, 2000). In addition, given the fact that private label increases the retailers' differentiation, their bargaining power and their margins, we would expect, once more, French retailers to outperform their Anglo-Saxon colleagues relative to their suppliers (Table 4). Overall this leads us to hypothesize that all retailers outperform manufacturers, but none more so than French retailers.

Data

Our study examines retailers and manufacturers listed on the French, UK and USAⁱ stock markets over a 16-year period ranging from January 1988 through December 2003.ⁱⁱ In order to avoid survivor bias, we considered all retailers and manufacturers quoted at some time during this period. Thus our sample includes equities quoted over the entire time period, equities which de-listed during this time period, as well as newly quoted equities.

Each country was analyzed separately in its local currency. After removing foreign and secondary listings, the USAⁱⁱⁱ sample consisted of 987 publicly quoted retailers and manufacturers (see Table 6). The sample size for the UK^{iv} and France^v was 566 and 304 companies respectively. We obtained monthly return data for the primary listings of each company from the Datastream database. Datastream was also our source for exchange rates, risk free interest rates, market value data and industrial classification data.

[Table 6 about here]

We constructed two portfolios of stocks for each country, the first consisting of manufacturers and the second of retailers. The manufacturer portfolio consists of companies which operate in the following industrial sectors as defined by Datastream (level 6 classifications): brewers, clothing and footwear, consumer electronics, distillers and vintners, food processors, household appliances and house wares, household products, personal products, soft drinks, textile and leather goods, and tobacco. Companies in the retailer portfolio belonged to one of the following industrial sectors: discount stores, food & drug retailers, restaurants and pubs, retail hardlines, retail e-commerce, retail multi-department, and retailer soft goods.

As can be seen in Table 6, the USA and the UK have a similar number of publicly quoted retailers and manufacturers, while France has roughly twice as many manufacturers as retailers. This may be due to the fact that French retailing is quite concentrated in the hands of a few families, many of whom have chosen to keep their retailing activities private. One will also notice that the database is roughly equally split amongst US and European firms.

[Table 6 about here]

Table 7 provides summary statistics of the data used in our analysis. Following standard financial empirical research (e.g. Anderson and Reeb,2003) , data for these statistics are calculated by taking for each company the time-series average over all months from January 1988 – December 2003 , and then averaging these time-series averages across companies (Anderson and Reeb, 2003). It is

remarkable and worth noting that the majority of these listed companies are relatively small; the size distributions are therefore skewed.

[Table 7 about here]

We further observe in Table 7 that the firm time-series averages of monthly TSRs in our sample depend considerably on the country. Retail and manufacturing sectors perform best in the USA and worst in the UK. This is not, as we will see in the next section, due to differences in the total market return in each country.

Analysis and results

Table 8 shows the mean monthly percentage difference between each portfolio's return and the total market return. This was calculated by subtracting the market return from each portfolio's return for each month, and then averaging over time. The portfolios were equally weighted, as we wished to reflect the performance of typical retailers and manufacturers; value-weighted portfolios tend to be overwhelmed by a few very large players (especially in retailing, but also in manufacturing).

[Table 8 about here]

In the USA, both the retailer and manufacturer portfolios performed better than the US market, thus continuing a trend already present in the 80's (Messinger and Narisimhan, 1995). In the UK, both retailers and manufacturers did worse than the total UK market.^{vi} In France, retailers did better than the French market, while manufacturers did worse. Overall, while in all three countries the retail sector generated a significantly better total shareholder return than the manufacturing sector, the relations with the respective market returns differ considerably. These results seem to reflect the differences in retail concentration and in retailer owned brands as explained in the previous section. The favorable regulatory environment for retailers (e.g. Raffarin and Gallant Laws in France) also seems to be reflected in their TSR performance relative to their suppliers and the total market.

The financial performance of the retail and manufacturer sectors over time and across these countries thus reveals a consistent pattern where retailers outperform manufacturers. To further study the performance of both sectors over time, we created a monthly rebalanced shareholder return index for

each sector by calculating the mean return for each portfolio, and then compounding this mean return over the number of months (Lyon et al. 1999). This return index simulates buying and selling monthly, and reinvesting the proceeds in equal parts in the stocks in each portfolio, at zero reinvestment cost. The index is set at 100 on December 31, 1987. The monthly-rebalanced index is shown in Figure 2 for each country.

[Figure 2 about here]

A number of interesting observations can be made from Figure 2. First, the relative stock market performance of retailers and manufacturers was very similar across countries. Second, retailers performed better over the time period. Third, in each country the same initial investment would after the 16 years of our time horizon have generated for the investor approximately twice as high a return if the investor had chosen the retail sector rather than the manufacturer sector. Fourth, the investment in the US and French sectors would have generated a return more than four times better than the same investment in the UK, in either the retail or the manufacturer sector. Finally, notwithstanding this underperformance in the UK of both sectors relative to their US and French colleagues during our period of observation, the relative performance of retailers and manufacturers in the UK remains remarkably similar to the one in the US and France.

Retailer performance and power

The superior performance of retailers thus could amount to a gradual recognition by the financial markets that retailers are slowly but surely turning their vertical power advantage into improved profitable growth. Our results thus differ from those of previous research (Ailawada, Borin and Farris 1995; Messinger and Narasimhan 1995), which found that retailers had not been able to translate their increased power into increased profitable growth.

One conclusion of this fact might be that the retail industry at the time of the Messinger and Narasimhan study was still relatively immature as compared to the manufacturing sector. Indeed, the results from a sample of the 50 largest retail and manufacturing firms in the US and Europe show that the average retailer was established 40 years later than the average manufacturer (Corstjens, Johnson

and Steele, 2005). Similarly, while most manufacturers started international operations before the Second World War, retail internationalization has largely happened during the last few decades, or is still nascent. For example, all manufacturers in the sample have significant international operations compared to less than half of retailers. Few European manufacturers even report sales or profits for their original domestic market – they already consider Europe to be their home market. Since retailers trail manufacturers with respect to internationalization and since building an international presence is expensive, we might expect retailers' overall profitability to reflect a period of investment in which cash-generating home markets are used to fund an emerging but still unprofitable international business. We find that, for companies where the information is available, most do record a higher percentage of sales than operating profits from their international markets. In contrast, manufacturers have a higher proportion of both sales and profits in international markets, with roughly equal profitability in domestic vs. international markets.

[Table 9 about here]

If retailers are progressively catching up with their manufacturing peers via internationalization and concentration, the development of store brands, and the expansion of their scope, and if this maturation process is producing the results (in terms of profitable growth) that retailers desire, and if the financial markets gradually are believing this evolution, then one would expect the out-performance by retailers over manufacturers to be stronger towards the end of our period of observation (say the last 5 years) than in the early part of the time period (say the first 5 years).

[Table 10 about here]

Results from Table 10 show that although it appears that retailers out-performed manufacturers more during the last 5 years as compared to the first 5 years; they have not done this yet in a significant way (based on two sample t-test with unequal variances).

An alternative way to explore the power explanation of the retail sector's superior performance consists of comparing the TSRs of value-weighted portfolios of retailers and manufacturers. Indeed, the power advantage of the retail sector should reside more with large retailers than with small

retailers. As the increased profitability of larger retailers would presumably have originated in economies of scale in operations and in increased bargaining power vis-à-vis their suppliers, we would expect these advantages to be more important for larger retailers. Increasing retail concentration would also imply faster growth for large retailers than for small retailers since it is the larger retailers that drive concentration. Finally, a value-weighted portfolio better represents the larger players.

[Table 11 about here]

Surprisingly, as Table 11 illustrates, the out-performance of retailers over manufacturers is much less pronounced in the value-weighted portfolios than in the equally-weighted portfolios. While in the USA and France the returns of the value-weighted retail portfolio still appear to dominate the value-weighted manufacturer portfolio's returns, in the UK, the value-weighted manufacturer portfolio actually performs better than the value-weighted retail portfolio. However, none of these value-weighted results are statistically significant, which limits the validity of any conclusions in this direction. We therefore conclude, on the basis of our analysis, that the power rationale for the retail sector's superior performance over this time period remains questionable. Our results thus suggest that the better stock market performance of retailers over manufacturers seems to be driven more by the smaller players than by the bigger players. This conclusion obviously runs counter to the superior accounting profitability of larger players due to economies of scale, but also runs counter to the intuition provided earlier in the paper which favors larger retailers over smaller ones.

Our analysis is unable to attribute retailers' superior stock market performance to a rationale of increasing retailer power over the time horizon investigated here.

An alternative explanation for our results might be that retailers were unable to translate their vertical power advantage into improved financial performance, and were instead forced to pass their vertical gains through to consumers, probably because of their lack of horizontal differentiation amongst each other. The latter explanation would be in line with the conclusions from the recent empirical pass-through literature. For example, Besanko, Dube and Gupta (2005) show that the pass-through of

manufacturer support for retailer is very substantial, leading up to a more than 100% retailer pass-through for 14% of the 78 products in the eleven different product categories they studied.

Firm size and shareholder value

Analyzing the TSRs of the value-weighted retail and manufacturing portfolios also reveals a remarkable similarity across the retail and manufacturing sectors in France, the UK and the USA. Figure 3 shows the monthly-rebalanced index for each country with each portfolio's final position ranked from highest to lowest in the legend.

[Figure 3 about here]

In all three countries, the performance of the value-weighted portfolio was better than the equal-weighted portfolio, i.e. big retailers outperformed small retailers, and big manufacturers outperformed small manufacturers. This seems contrary to the belief of the finance field that small firms outperform large firms on the stock market (Banz 1981, Barber and Lyon 1997, Fama and French 1992, Heston, Rouwenhorst and Wessels 1999). The various reasons for the small firm effect include: lack of information on small firms (Arbel and Strebel 1983), return measurement error (Roll 1983), tax loss selling effect (Reinganum 1983), transaction costs and lack of liquidity (Lustig and Leinbach 1983), skewness preference (Booth and Smith 1987) and investor overreaction (De Bondt and Thaler 1987).

We examined this size effect more closely by following an approach similar to that of Barber and Lyon (1997). Size is measured by the market value of the equity. We placed manufacturers and retailers into size quintiles based on rankings formed monthly for each country. Small (large) firms are those firms in size quintile 1 (5). Results are shown in Table 12.

[Table 12 about here]

We find that the shareholder return of the small minus big portfolio is always negative and significant. This is evidence that in all three countries, large firms outperform small firms in both the retail and manufacturing industries. This runs counter to the common wisdom of the finance field of excess performance of small firms relative to big ones. It underlines the importance of the returns to scale

and scope effects for both retailers and manufacturers, which seem to overcompensate for the traditional small firm bias of stock market investors.

Time Series Analysis of Excess Total Shareholder Returns

Since vertical power doesn't seem to be the reason for the stock market out-performance of the retail sector over the manufacturing sector, we turned to finance theory to try to find an explanation of our observed asymmetric performance. Messinger and Narasimham (1995) used an event-study methodology in their search for evidence of a power shift in the USA grocery channel in the 1980s. However, as it is impossible to identify a single date for the shift in power between retailers and manufacturers, the event-study methodology does not really appear suitable for studying a shift that has been occurring gradually over a long period of time. The event-study methodology can also only be used on established companies with a substantial amount of historical data prior to the event, as a meaningful training sample is required to determine the coefficients of the baseline model. Finally, event studies are often criticized for the fact that the prior time period used to assess the baseline model was not long enough to define "normal" behavior. We avoid these difficulties by taking a long-horizon approach using latest financial research methodology.

Finance researchers (Fama and French 1993, Carhart 1997) have identified four important equity characteristics that explain differences in total shareholder returns of stocks or portfolios. The best-known risk factor is the market risk coefficient beta. Beta is a measure of the volatility of an individual security's returns, or portfolio of securities' returns, relative to total market returns. In addition to the market risk factor beta, Fama and French found that portfolios constructed to mimic risk factors associated with size (SMB) and book-to-market (HML) ratios also captured strong common variation in returns (Fama and French, 1993). *SMB* is the average return of a portfolio of small size equities minus the average return of a big size portfolio. *HML* is the average return of a value portfolio (high book-to-market ratio) minus the average return on a growth portfolio (low book-to-market ratio).

The Fama and French three factor model was further improved by Carhart with the addition of a momentum factor (Carhart, 1997). The variable *UMD* (Up Minus Down) mimics what would happen if in a given month you bought the top 30% best performing stocks and sold the bottom 30% worst

performing stocks of the prior 11 months. Researchers and practitioners disagree over whether momentum should be positive or negative over a given time period. For example, buying best performing stocks may pay off in the short term, but in the long term the worst performing stocks might do better. Investors pursuing contrarian strategies would buy bad performing stocks and sell stocks that performed best over the recent horizon.

Carhart's four factor model was recently used by Gompers, Ishii and Metrick (2003) to study the effect of corporate governance practices on TSRs. In particular, they analyzed the differences in appropriately labeled Democracy and Dictatorship portfolios. Their model can be formalized as follows:

$$(1) \quad R_t = \alpha + \beta_1 (RMRF_t) + \beta_2 (SMB_t) + \beta_3 (HML_t) + \beta_4 (UMD_t) + \varepsilon_t,$$

where R_t is the excess return to some asset in month t , $RMRF_t$ is the month t value-weighted market return minus the risk free rate, and SMB_t and HML_t are the two Fama and French size and book-to-market factors, while UMD_t is Carhart's momentum factor, again in period t . We apply the same performance-attribution methodology to examine return differences of retailer and manufacturer portfolios.

In our study, R_t is the monthly return difference between retailer and manufacturer portfolios, and alpha is the abnormal return on a zero-investment strategy that buys the retail portfolio and sells short the manufacturer portfolio. If alpha is significantly non-zero then this means that there is a real performance difference between the portfolios that cannot be explained by the four risk factors.

We obtained the values of RMRF, SMB, HML and UMD for the USA from Kenneth French's website. The excess return on the market, RMRF, is the value-weighted return on all NYSE, AMEX, and NASDAQ stocks minus the one-month Treasury bill rate. We calculated RMRF, SMB, HML, and UMD for the UK and French markets ourselves using the definitions of Rouwenhorst (1999). The results of the performance-attribution regressions by country are shown in Table 14. As the results from this analysis might depend on the specifically chosen time period, we tested the

robustness of the results by systematically dropping years from the beginning, and then the end of our time period.

The results from this analysis show remarkable stability of the non-existence of abnormal returns in France and the UK. Interestingly, we found a statistically significant abnormal return in favor of US retailers over the entire observation period. However, our robustness tests show that this abnormal return is fundamentally driven by the last years of our time period. For the US, the results are significantly different for the first part (1988-1997) and the second part (1998-2003) of the 16-year observation period.

In all three countries the retail sector is judged to be more risky than the manufacturing sector in terms of its more pronounced dependence on the non-diversifiable risk of the sector's correlation with the total market evolution (RMRF factor). Investments in this sector should, according to finance theory, generate an excess return over investments in the manufacturing sector in order to compensate for the larger market risk thus incurred.

Examining the other risk factors, we observe further that in the UK, RMRF (i.e. market risk) is the only significant risk factor. In France we find that the risk factor related to book-to-market equity also contributes to explaining the difference in the average monthly return of these two portfolios. French manufacturers appear to have stronger exposure to the HML risk factor. Thus it would appear that French manufacturers tend to be more distressed than retailers. Distress is typically found in firms with persistently poor earnings, which lead to low stock prices and high book-to-market values.

[Table 13 about here]

Taking into account these different types of market risk, the results in Table 13 largely suggest that there is no excess return difference between the two sector portfolios. This means that the observed differences in the stock market performance of retailers and manufacturers can – with a caveat for the 1998-2003 period in the US – be fully explained by their different exposure to the four risk factors (Fama et al. 1993). The market attributes the excess return of the retail portfolio mostly to differences

in the risk structure of the returns. Taking these structural differences into account, excess returns between the two sector portfolios disappear.

In the USA, our main finding is two-fold. First, we do find the same result of insignificant excess performance of one sector above the other - as is the case in our two European countries - but only for the period 1988-1997. For that period the better returns for retailers than for manufacturers seem to be no more than a compensation for the investor to accept the retailers' higher market risk and their higher exposure to the small minus big risk factor. Second, the recent period 1998-2003 yields a different conclusion, as it appears that the retail sector even after accounting for differences in financial market risk, small versus large risk, book-to-market risk and momentum risk, has significantly out-performed the manufacturing sector. Remarkably, this out-performance disappears when we run the same analysis for the value-weighted portfolios, indicating that the superior results for retailers are driven by the smaller players rather than the larger players. This runs contrary to the conclusion one might have reached from the business press which almost exclusively comments on the performance of giants like Walmart, Target, Home Depot, Carrefour, Tesco etc...

Complementarity in the returns of manufacturers and retailers

Last but not least our results also show that in all three countries the monthly returns of the retailer and manufacturer portfolios are significantly positively correlated (Table 14). From the point of view of the stock market, returns of retailers and manufacturers are complementary. The frequently mentioned or implied constant sum game between retailers and manufacturers (e.g. Kumar 1996; Geyskens and Steenkamp 1999, Kuipers 2001) seems to be contradicted by our results, at least taking the viewpoint of financial investors. This consistent and strong significant positive correlation suggests that investors, in their efforts to diversify financial risk, should be aware of this correlation when simultaneously investing in retailers and manufacturers.

[Table 14 about here]

However, this statistically significant correlation between the returns of retailers and manufacturers could be due not so much to the intrinsic complementarity of the two sector's returns, but to the

correlation of both sector's returns with another set of exogenous variables, for example, market sensitivity, size, book-to-market value and momentum risk factors. To explore this possibility we investigated the correlation between the returns of the retailer and the manufacturer portfolios after correcting them for the four risk factors using Zellner's seemingly unrelated regression approach. The results are shown in Table 15. We find that in each country the correlation of the residuals is positive and significant. Thus, the risk-adjusted total shareholder returns in the manufacturer and retail sectors are also complementary, i.e. they move in the same direction. This is true for both the equal-weighted and the value-weighted portfolios. The correlation therefore remains even after correcting for the four risk factors.

[Table 15 about here]

These results provide further support for the findings of a recent empirical analysis of the mutual benefits of Efficient Consumer Response projects for both retailers and manufacturers .(Corsten and Kumar, 2005)

Conclusions

It is widely believed that retailers are becoming more and more powerful. If this is true, we should expect to see this reflected in their stock market performance. Few researchers have studied this question, and to our knowledge none has investigated their stock market performance outside of the USA.

In our international study, we sought to determine if it was beneficial for investors to buy shares in retailers, as opposed to shares in manufacturers over the 16 year period from January 1988 through December 2003 in France, the UK and the USA. We analyzed the total shareholder returns of two portfolios, retailers and manufacturers, in each country using several financial methodologies, including time series analysis of excess returns.

We found that retailers did perform significantly better than their suppliers over this time period in all three countries. Given the favorable evolutions for retailers in terms of concentration, private label, scope, regulatory (particularly for France), and technology, our results seem logical. However, this superior performance for retailers doesn't seem to be driven by a change in the balance of power

towards retailers. Contrary to our expectations and the shifting power balance explanation, our analysis shows that the superior performance of retailers did not become significantly stronger in the last 5 years of our observation period than in the first 5 years. The retail sector's superior TSR also disappeared when we focused the analysis more on the larger companies in our sample. This is in contrast to the common assumption that larger retailers are the ones that are associated with a gain in vertical power and with their ability to transform this power into profitability. Maybe these large retailers lack differentiation from their horizontal competitors, and as a result use the gains obtained from their suppliers to attract shoppers, thereby considerably diluting their financial performance.

Since the power-shifting paradigm didn't produce a convincing explanation for our observed retailers' superior performance, we applied modern financial assessment methodology to explain our results. We adjusted the total shareholder return for risk factors related to market sensitivity, size, book-to-market equity and momentum. After correction for these risk factors, we found no significant abnormal return in the European data (France and the UK), or in the US data (the latter for the period 1988-1997). The observed differences in the stock market performance of retailers and manufacturers in these countries and for the relevant time periods could be fully explained by their different exposure to classical stock market risk factors. Investors did benefit from a better return from their retail portfolio but this higher return compensated for the higher non-diversifiable risk of the retail portfolio.

Although the evolution of both sectors over the period of our observation was not uniform in France, US and the UK, the convergence of our main results across the three countries is remarkable. It suggests that, independent of the specific situation of the retail and manufacturing sectors in each of the countries studied, investors' relative expectations about retailers and manufacturers is not a function of geography. Investors appear to have a clear view of the relative attractiveness of these two sectors: viewing both sectors as equally attractive, and this even though retailers are more risky and therefore need to produce a higher return for investors. And this result holds for the three countries examined here.

The only statistically significant excess performance we did find concerned an abnormal excess return for the retail sector over the manufacturing sector in the USA over the recent period (1998-2003). This excess return appears to be due to a systematic underestimation by the stock market of smaller retail firms.

We have two corollary results. First, we were not able to validate the common belief in the finance field that small firms outperform large firms in the stock market. Our results show that, presumably driven by their overwhelming economies of scale and scope, large manufacturers and retailers significantly outperformed their small colleagues in all three countries during the period studied. Secondly, we also found that shareholder returns in these two sectors (both in raw figures and in risk-adjusted figures) were complementary. Our results therefore support the cooperative mode and joint interests of retailers and manufacturers rather than the conflictual 'constant-sum' interaction. This complementarity also suggests that investors should not have invested in retailers and manufacturers simultaneously if they wished for fully diversified investment portfolios. Technically, this complementarity in stock market returns for both sectors is intriguing since in almost all equity research departments of major financial institutions the retail and the manufacturing sectors are covered by completely separate groups of analysts. It might thus be interesting to research the advice these specialists offer their clients.

Three areas for future research can be identified. First, the increased vertical power of retailers doesn't appear to produce a corresponding increase in that sector's financial performance. A plausible hypothesis is that this is attributable to the retailers' lack of sustainable non-price differentiation. If this were the case, it would be interesting to examine the intrinsic characteristics of retailers that undermine such sustainable differentiation, as well as what might make such differentiation more feasible for manufacturers. Is it that retailers are more prone to price and promotion wars because of their high fixed cost and low margin structures? Or is it that consumers are less willing to pay for the services provided by retailers than for the product and branding services offered by manufacturers? If the latter is the key driver, what are the motives for this type of consumer behavior?

A second research area would be to delve deeper into the more recent (1998-2003) systematic undervaluation by financial markets of the US retail sector's supremacy over their suppliers' sector. Many hypotheses arise here as well. Is it a trend that is noticeable in the US and will soon come to Europe as has often been the case with economic phenomena where the US is typically showing the way? Could it be that this out-performance is the result of particular ownership choices by retailers. For example, could the out-performance of retailers over manufacturers be due to the fact that, in a sector dominated by family ownership and many small retailers, only successful small retailers are publicly quoted, whereas this is less the case for a more mature manufacturing sector?

Finally, a third research area deals with the public policy implications of our research. Our negative results can be interpreted as being the result of retailing being unable, presumably due to a lack of horizontal differentiation with other retailers, to translate their increased vertical power into superior returns for shareholders. Does this suggest that retailing, from a public policy viewpoint, can be characterized as an effective mechanism to redistribute to the final consumers, any 'excess' profits generated by the manufacturing sector? Retailers thus assume a consumer welfare role in the economy, in addition to their role of distribution of goods and services. In this context, how might regulators even further improve the bargaining position of retailers relative to their suppliers? Might this create another angle for the regulators in assessing the monopsony power of retailers in the face of a much larger number of suppliers?

Table 1a
Retail concentration in US and Europe (2002)
(% of Total Sales by Top retailers)

Top #	US	Europe
Top 5	15 %	12 %
Top 10	21	18
Top 25	31	29

Source: MVI, Global Retailer Database.

Table 1b
Concentration in Manufacturing in US (2002) and France (2000)
(% of Total Sales of Top Brands)

Category (US, 2002)	% of Total Sales by Top 5 Brands	Category (France, 2000)	% of Total Sales by Top 4 Brands
Beer	55	Animal Food	81
Carbonated Soft Drink	48	Beer	85
Chips	65	Biscuits	44
Chocolate Candy	21	Chocolate	38
Convenience/Still Water	55	Edible oil	84
Cookies	33	Ice cream	58
Crackers	49	Margarine	100
Energy Drinks	84	Mineral water	68
Frozen Meals	59	Pasta	66
Ice Cream	39	Soft drinks	61
Natural Cheese	51	Spirits	65
Non-Chocolate Chewy Candy	34	Tea and coffee	68
Refrigerated Orange Juice	92	Tobacco	100
Regular Gum	50		
Shredded Cheese	51		
Whole Bean Coffee	77		

Sources:

- US (2002): *Information Resources Inc.*, InfoScan data for total food, drug and mass merchandise (excluding Wal-Mart)
- France (2000): *Agrreste*, statistics from the Ministry of Agriculture, Paris, 2003

Table 2
Changing Concentrations in the US Retail Trade and Manufacturing Sectors
(1982-1997)
(4 firm concentration ratio)

Sector	1982	1992	1997
Retail Trade	na	18	24 (+33%)
Building materials and garden supplies	11	20	na
Department stores and general merchandise	42	64	63 (+50%)
Food stores	16	16	na
Gasoline service stations	4	6	7 (+75%)
Apparel and accessories	20	32	36 (+80%)
Furniture	10	18	54 (+180%)
Eating and drinking places	5	8	na (+60%)
Miscellaneous	15	18	35 (+130%)
Manufacturing	na	39	42 (+8%)
Food	40	48	42 (+5%)
Tobacco	85	92	93 (+9%)
Apparel	24	30	26 (+8%)
Furniture and fixtures	23	29	29 (+26%)
Lumber and wood products	20	19	21 (+5%)

Source: US Census Data 2004

Table 3
Changing market shares (in value) for private label in the grocery industries
of France, UK, and US
(1995-2002)

Country	1995	2002	Change
France	15 %	22 %	+47 %
UK	30 %	38 %	+26 %
US	13 %	18 %	+38 %

Sources: IRI, Europanel, Euromonitor, and Private Label Manufacturers Association

Table 4
Retailer Internationalization: 10 largest international retailers in 1995 and 2004
(in billion US \$ of international sales)

Top international retailers (1995)	International Sales (in billion US \$)	Top international retailers (2004)	International Sales (in billion US \$)
Tengelmann	16	Wal-Mart	63
Metro	13	Ahold	54
Carrefour	10	Carrefour	46
Ahold	8	Metro	33
Ito Yokado	7	Auchan	20
Promodes	7	Schwartz	17
Safeway (US)	4	Delhaize	17
Price-Costco	3	Aldi	16
Wal-Mart	2	Tengelmann	15
Sainsbury	2	Rewe	15
Cumulative International Sales	72		296 (+311%)

Source: *Lebensmittelzeitung*, Annual Review of the Retail Sector (1996-2005)

Table 5
Changing Shares of the top 5 FMCG retailers in France, UK and US
(1995-2003)

Country	1995	2003	Change
France	50	81	+62 %
UK	60	64	+7 %
US	20	32	+60 %

Source: AC Nielsen, BCG and McKinsey

Table 6
Number of Companies in each Portfolio

Country	Total	Retailers	Manufacturers
France	304	99	205
UK	566	289	277
USA	987	502	485

Table 7
Summary Statistics across All Companies in our Sample

Country	Units	Mean	Median	Standard Deviation	Max.	Min.
Market Value						
France	millions €	534.70	46.48	2188.48	23009.14	0.10
UK	millions £	385.11	34.20	1322.14	13691.08	0.16
USA	millions \$	1353.24	118.28	6357.68	111402.00	0.01
Monthly Total Shareholder Return						
France	%	1.26	1.14	2.72	20.60	-11.93
UK	%	1.02	0.90	2.97	36.13	-12.73
USA	%	1.79	1.51	4.59	56.45	-16.27

Table 8
Mean Monthly % Difference between Portfolio and Market Return

Country	Total Market	Retailers	Manufacturers	t-statistic Retail - Mfg
France	1.74	0.10	-0.36	1.60*
UK	1.67	-0.65	-0.97	1.85**
USA	1.05	0.95	0.47	1.92**

*10% and ** 5%: significance levels for the paired t tests, testing the hypothesis that the TSR of the retail portfolio minus the TSR of the manufacturer portfolio has a zero mean

Table 9
Age and Internationalization

Difference between Means: Manufacturing – Retailing			
	Total Sample	European	North American
Yrs since Founding	40.5***	45.6*	39.4***
Yrs since Internationalization	55.2***	53.7***	58.1***
% sales from outside home market	23.1***	18.8 ^{vii}	34.6***
% profits from outside home market	25.8***	22.4*	33.9***

Source: Company websites, Hoovers, press searches, Datamonitor.

Table 10
Mean Monthly % Difference between EW Retail and Manufacturer Portfolios
First 5 Years and Last 5 years

Country	Retailers – Manufacturers (first 5 years)	Retailers – Manufacturers (last 5 years)	t-statistic
France	0.34	0.63	-0.44
UK	-0.25	0.39	-1.25
USA	0.28	0.58	-0.49

Table 11
Mean Monthly % Difference between EW and VW Retailer and Manufacturer Portfolios
1988-2003

Country	Equally-weighted portfolios	Value-weighted portfolios
France	0.46*	0.16
UK	0.33**	-0.06
USA	0.48**	0.35

The asterisks represent the significance level of the paired t-test, which tests the null hypothesis that the mean monthly return differs between retailers and manufacturers. ** and * refer to the 5% and 10% levels respectively.

Table 12
Percentage Mean Monthly Returns on Equally-Weighted Size Quintile Portfolios for
Manufacturers and Retailers, January 1988 – December 2003

Size Quintile	France		UK		USA	
	Retailers	Manuf.	Retailers	Manuf.	Retailers	Manuf.
1 (Small)	0.07	0.53	-0.93	-0.30	1.37	0.81
2	2.00	0.81	1.39	0.58	1.85	1.52
3	2.62	1.67	1.02	1.01	2.51	1.87
4	1.56	1.41	1.59	1.29	2.21	1.68
5 (Big)	1.97	1.52	1.43	1.25	2.11	1.62
1 – 5 (Small- Big)	-1.90***	-0.99**	-2.36***	-1.55***	-0.74*	-0.81**

The asterisks represent the significance level of the t-statistic assuming unequal variances, which tests the null hypothesis that the mean monthly return differs between the small and big portfolios. ***, ** and * refer to the 1%, 5% and 10% levels respectively.

Table 13
Performance-Attribution Regression Results of Equal-Weighted Portfolios
Retailers minus Manufacturers 1988 – 2003^{viii}

Country	Excess Return	Adj. R²	α	RMRF	SMB	HML	UMD
France	Retailers – Manufacturers	0.06	-0.06 (0.852)	0.16 (0.042)	-0.005 (0.962)	-0.14 (0.020)	0.02 (0.770)
UK	Retailers – Manufacturers	0.06	0.18 (0.425)	0.18 (0.001)	0.08 (0.199)	-0.04 (0.452)	0.02 (0.687)
USA	Retailers – Manufacturers (1988-1997 period)	0.07	0.106 (.730)	0.19 (.030)	0.29 (.013)	0.060 (.644)	-0.051 (.660)
USA	Retailers – Manufacturers (1998-2003 period)	0.19	1.10 (0.016)	0.14 (0.17)	0.10 (0.338)	-0.167 (0.187)	-0.111 (0.079)

The significance level appears in parentheses.

Table 14
Correlation of Mean Monthly Total Shareholder Return between Retailer
and Manufacturer Portfolios

Country	VW portfolios	EW portfolios
France	0.72***	0.65***
UK	0.67***	0.83***
USA	0.61***	0.84***

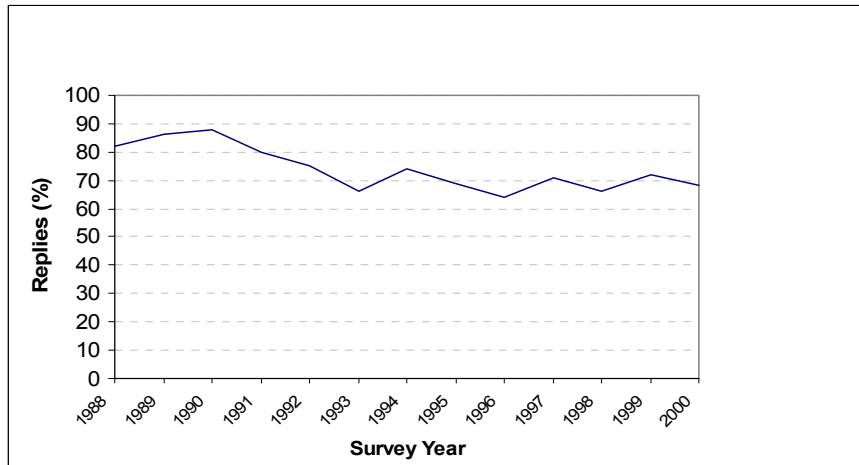
*** significant at the <1% level

Table 15
Zellner's Seemingly Unrelated Regression on Equal-Weighted Retailer and Manufacturer
Performance-Attribution Regression Models 1988 – 2003

Country	Excess Return	Adj. R²	α	RMRF	SMB	HML	UMD	Residual Correlation
France	Retailers – Risk Free	0.47	0.46 (0.156)	0.84 (0.0001)	0.38 (0.0001)	-0.05 (0.398)	0.02 (0.088)	0.3365 (0.0001)
	Manufacturers – Risk Free	0.51	0.52 (0.028)	0.68 (0.0001)	0.38 (0.0001)	0.09 (0.035)	0.0002 (0.996)	
UK	Retailers – Risk Free	0.53	0.39 (0.173)	0.81 (0.0001)	0.41 (0.0001)	-0.05 (0.420)	-0.14 (0.014)	0.663 (0.0001)
	Manufacturers – Risk Free	0.50	0.21 (0.384)	0.63 (0.0001)	0.33 (0.0001)	-0.01 (0.794)	-0.16 (0.001)	
USA	Retailers – Risk Free	0.59	1.08 (0.001)	0.95 (0.0001)	0.69 (0.0001)	0.38 (0.0001)	-0.23 (0.0001)	0.591 (0.0001)
	Manufacturers – Risk Free	0.70	0.57 (0.002)	0.79 (0.0001)	0.52 (0.0001)	0.45 (0.0001)	-0.13 (0.0001)	

The significance level is in parentheses.

Figure 1
Survey Results on Shifting Power Balance in favour of Retailers



Source: *Progressive Grocer*, Annual Review of the Grocery Trade, 1989-2001. This particular survey question asked both retailers and manufacturers whether the power balance had shifted in the last year relative to previous year, and, if it did, in whose favour? The table indicates the percentage responses that identify the retail sector as the beneficiary of the shift in power balance. The survey was dropped after 2000.

Figure 2

Equal-Weighted Monthly Rebalanced Retailer and Manufacturing Indices

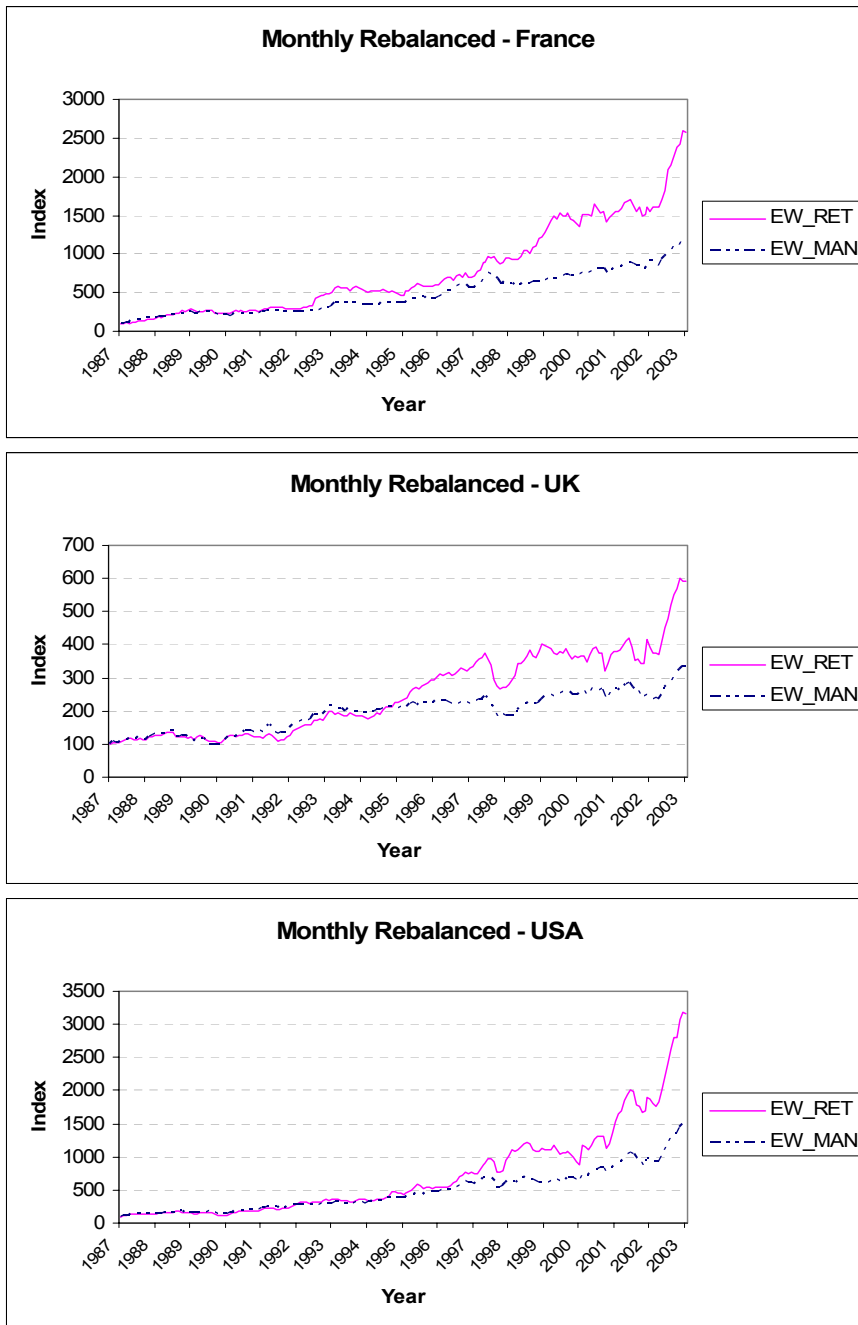
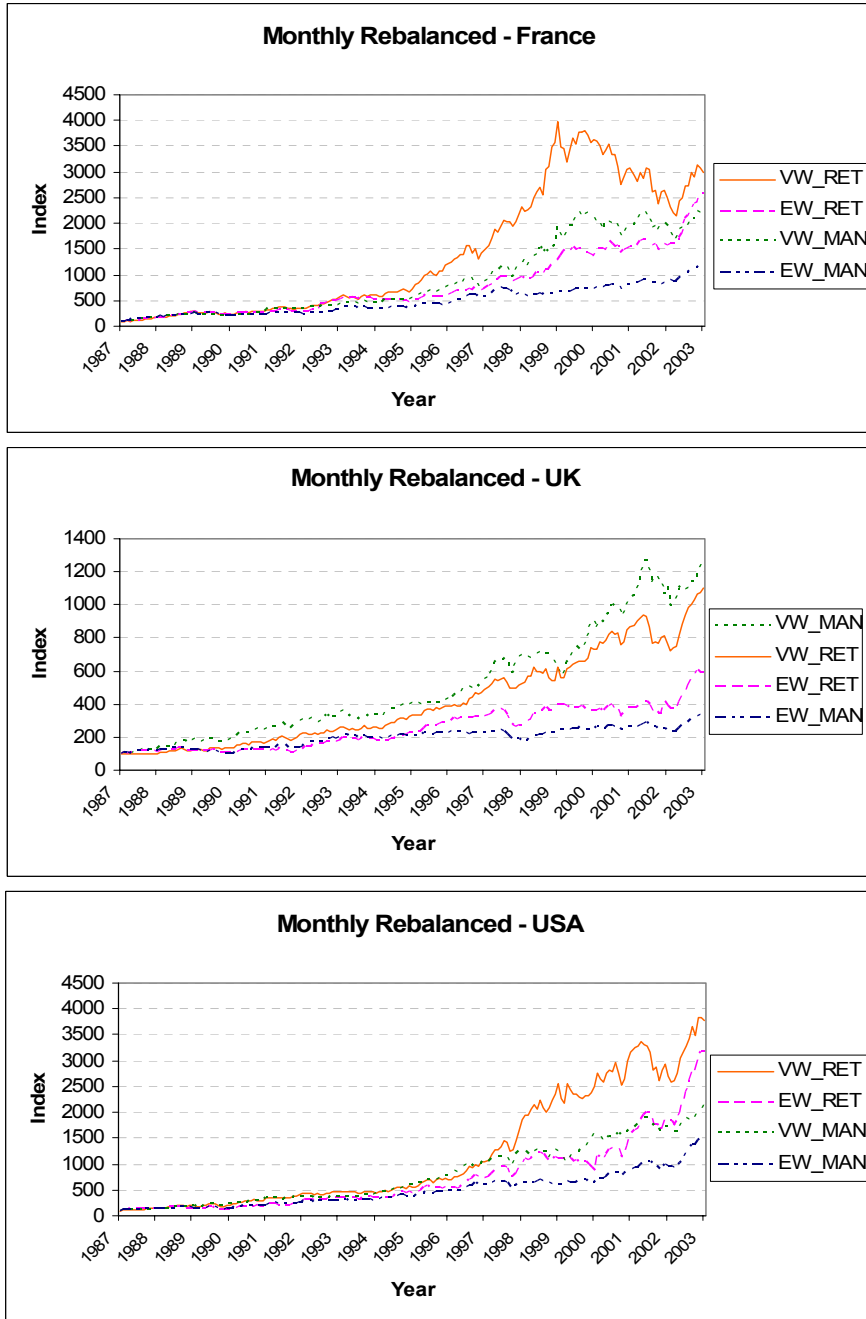


Figure 3

Monthly Rebalanced Indexes for Equally and Value-Weighted Portfolios



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ⁱ Initially we included Germany in our analysis. However, we had to remove Germany due to the very small number of German retailers listed on the stock market. The lack of publicly quoted German retailers and manufacturers (there are also fewer manufacturers listed on the German stock market as compared to the US, UK and France) is due to the fact that German companies were, in general and until recently, financed predominantly by banks rather than the stock market .

ⁱⁱ This time period was chosen because of the availability of data needed to construct the factors used in the time series regression models for the European countries.

ⁱⁱⁱ USA stocks quoted on NYSE, AMEX or NASDAQ exchanges.

^{iv} UK stocks quoted on all UK exchanges covered by Datastream.

^v French stocks quoted on all French exchanges covered by Datastream.

^{vi} This may be evidence that UK retailers and manufacturers had been ahead in their performance in earlier periods, and were caught up in the period studied here.

^{vii} 4 out of 11 European manufacturers treat Europe as a whole as their home market rather than their country of origin. If we were able to get results by actual home country this result would certainly be significant.

^{viii} Table 16 will show that the four factor performance attribution models have considerable higher Adjusted R² when applied to explain the returns of the individual sector portfolios, attesting to the validity of the models.