Foreign Direct Investment by European Food Retailing Firms into Asia, Eastern Europe, and Latin America

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Section 1: Problem Statement

Over the last ten years, increasing numbers of food retailing firms have increased their foreign direct investment (FDI) in developing countries of Latin America, Eastern Europe, and Asia. Investment has flowed from large multinational firms in distant countries in Western Europe and the United States as well as neighboring, smaller multinational companies within the Latin American, Asian, and Eastern European regions (Reardon and Berdegué 2002, Flag and Rerkkriangkrai 2001). This investment has dramatically increased the number of supermarkets, hypermarkets, and convenience stores in these regions.

The rate of this change is rapid. For example, supermarkets' share in the Croatian food retail sector have gone from 25% in 2000 to 51% in 2002, after FDI began flowing into Croatia in 2001 (Reardon et al. Forthcoming). Through the late 1990's the supermarket sector in South Africa grew from a very small market share to 55% of the food retail market (Weatherspoon and Reardon 2003).

Current research reveals the implications of these changes for producers are substantial. In Latin America, there was increased contract production in both the dairy and fresh fruits and vegetables (FFVs) sectors. The dairy industry is increasingly concentrated as a result these market changes (Reardon and Berdegué 2002). Individual producers in these areas are experiencing lower negotiation power as they look to market their products to the larger food retailers.

In Croatia, the sales of FFVs to supermarkets are worth $75 million annually in a country of 4.5 million people. From 2001 to 2003, there was a significant increase in the number of wholesalers dedicated or specialized to supermarket sales (Reardon et al. Forthcoming). African FFV marketing conditions are changing as well. In Kenya, supermarkets account for 10% of output sales compared to the 3% of output that is sold to the export market. Supermarkets are developing their own procurement and distribution systems throughout East and South Africa with more and more commercial food sales across both regions (Weatherspoon and Reardon 2003).

While much past research has documented the rise of supermarkets in developing nations, it has not answered the question of why this is occurring. There is a need for greater understanding of the food retailers' decisions to invest abroad. It will be easier to predict which countries are likely to receive this kind of investment and to what degree it may impact their agricultural marketing and production through a better understanding of their movement. Companies are fighting to define their niche and market space in the new markets. Companies believe that if they do not move early and maintain a global presence, they will not be able to profit from future market growth. Globally, the introduction of the new food retailing formats means new but limited ways for consumers to shop for food. Industry experts believe companies are limited in that there are only a few retail formulas that may be preferred in a new country and/or can transplant easily around the globe (Josten 2003).

European retailers are of special interest because they are investing abroad more regularly than retailers in other areas of the world, mainly Japan and the United States. A list of the top 25 retailers (including food and non-food retailers) in 2001 is presented in Table 1. One will see that 10 are food retailing firms from Europe. These include Carrefour of France, Metro of Germany, Ahold of the Netherlands, Tesco of the United Kingdom, Rewe of Germany, Intermarche of

France, Auchun or France, Edeka of Germany, Sainsbury of the United Kingdome, and E. Leclere of France. Global retailers are becoming an increasingly important component of the foods supply chain. The top ten retailers in the world (including food and non-food) represent 8% of global consumer demand. The 25 largest retailers represent 14% of global consumer demand. Of the top 200 retailers in 2001, 108 have a supermarket, warehouse, hypermarket, and/or a cash and carry format that includes food items (Deloitte Touche Tohmatsu 2002).

This research will use strategy and finance theories to understand which nations are likely to receive foreign direct investment in the food retailing sector. The main objective of this research is to measure how market risk, in addition to other strategic variables, impacts the firm's decision to enter a foreign country. The affiliate country's high income growth potential and higher annual increases in consumer expenditure on food over the last ten years compared to developed markets are assumed to be attractive incentives to prospective foreign, food retailing firms. Figure 1 provides a sample comparison in the rate of income growth between certain developing and developed countries. Developing countries such as China have a higher average mean growth than the United States, The Netherlands, and France; but it is also a much more variable growth rate. The down-side of investment in new markets includes generally increased risks associated with the foreign exchange rate, differences in government regulations and customs that may make business more difficult, and the complex task of building new supply relationships in new countries.

Section 2: Literature Review

Throughout the 1960s, 1970s, and 1980s, much research time and energy went into understanding foreign direct investment (FDI) and the rise of multinational firms (Porter 1986, Caves 1982, Connor 1977). Most of this research focuses on non-food and non-retail sector firms. Still, it provides a starting point to try to understand the comparatively lagged, but vigorous increase in FDI by food retailing firms into developing countries in the last decade. This section reviews previous theories and observations with regard to FDI. It also includes a simplified overview of real options theory as it may help explain industry investment.

Caves (1982) is one of the most referenced authors regarding FDI. His initial work outlined common reasons why firms foreign direct invest abroad and the ways in which they do so. His does work focus on the plant or production side and not the retailing or "downstream" end of industries. According to Caves, firms consider FDI to increase the returns to scale for fixed investments including technology research and development and advertising. In addition, they may choose to locate abroad in order to bring down the transaction costs of serving a foreign market.

A central figure in the strategy literature, Michael Porter, has written two books on globalization that help build a framework for analysis. In his first book, he looks at the global competitiveness of firms and in the second, the global competitiveness of nations. Porter (1986) states that there is a first-mover advantage into the international market place and to becoming a global industry giant. Firms that move early can learn to adapt to new markets and beat the competition. He sights the following companies as global first-movers in their industry: Kodak in film, Boeing in aircraft, Honda in motorcycles, and IBM in computers. These companies moved early and quickly, mostly with new technologies, to gain both scale and learning advantages in

foreign countries. They often began with a competitive advantage at home and used it to lever into foreign markets.

Porter (1986) also identifies six trends shaping global competition for firms. First, he finds that countries are becoming more similar. Thus, it is more possible for companies to do similar business across borders. Countries have more similar infrastructure, marketing approaches, advertising mediums (e.g. television), and mediums of exchange (e.g. major credit cards). Second, the international capital markets are more fluid due to variable exchange rates and the ability to move increasingly large sums of money across borders. Third, global competition becomes more apparent as tariff barriers lower. There is an increase in the number of regional economic pacts and successive bilateral and multilateral trade agreements facilitated by the World Trade Organization (WTO). These trends indicate it is becoming easier to conduct international business.

The next two trends shaping global competition relate to technology. At the time that he wrote his first book on global competitiveness, in 1986, there was less information technology widely available then there is today (e.g. the internet). However, Porter still found that there were technology advances that affect the ability of firms to produce across nations. The implementation of microelectronics, information systems, and advanced new materials made it more possible for firms to create new competitive advantages and lead their industry across nations. New materials made products easier to ship and new information technology made coordinating international logistics and R&D work easier as well as catering products to fit different market needs.

Finally, the entrance of new players from abroad increases the competition for market share of firms in the affiliate country. As firms from abroad start competing more regionally and globally, home firms will start to fight harder to product and win market share.

Major patterns Porter found to influence global competition are that traditional competitive advantages are no longer relevant in some industries, government policies are more influential in promoting global competition, and it is more possible for certain firms to compete across different countries. When economic growth rates are slow in one country, it induces companies in that country to look toward more profitable markets. Currently, developed countries tend to have slower growth rates than less developed countries. Less protectionism since World War II has made it more possible for companies to move abroad along with foreign government incentives from different nations for multinationals to invest in their country. For example, one requirement of Chinas entry into the WTO in 2001 was that they open their markets to foreign direct investment in the food retailing industry (Deloitte Touche Tohmatsu 2002).

Congruent with Porter's previous strategy work, he uses value-chain analysis to analyze the firm's ability and decision to move into another country. When a firm does move abroad, Porter claims that it has to look at all of its different activities and see how they will participate or be affected by the move. In the case of some companies, they may choose to move select activities abroad (Porter 1986). For instance, many technology companies are currently moving many service jobs to India (Schroeder 2003). Others may choose to start subsidiaries that perform almost all of the same activities as the home company (Porter 1986).

Companies will disperse or coordinate their activities globally when the benefits of doing so outweigh the costs (Porter 1986). There are several economic based factors that will determine whether or not the activity is performed abroad. It is more likely to be performed in concentrated areas if there are economies of scale in the activity, a proprietary learning curve in the activity, a comparative advantage if one or a few locations for perform the activity, and/or coordination advantages of co-locating linked activities such as R & D and production. Factors

such as the degree of local product specificity; level of knowledge that can be shared between sites; and transportation, storage, and communication costs will affect the dispersion of operations. The way in which these costs and factors interact will dictate how the company globalizes.

As more and more food retailing firms globalize, it is allowing them to centralize their management and human resource activities in, typically, the home country. This allows them to have more bargaining power with food processing firms and suppliers yet serve a much larger market. According to a food industry consultant, Lia Josten (2003), many food retailers are taking advantage of their increasingly centralized power to bring down the costs of advertising and promotion. They are able to negotiate product bargains and discounts for multinational processors' products throughout their stores in all of their countries, at the same time. They also have increasing power to have a supplier produce private label products for their stores.

Porter names four attributes that affect the creation of a nation's competitive advantage in an industry. He believes firms are more likely to emerge as international competitors if they come from countries that have the right combination of factor (endowment) conditions; related and supporting industries; demand conditions; and firm strategy; structure, and rivalry. He expands the traditional economic concept of factor endowment to include a country's human capital base, physical resources (land, water, mineral, timber, and etc.), knowledge resources (including scientific, technical, and market knowledge bearing on goods and services), capital resources, and infrastructure (Porter 1990). Figure 2 illustrates the interactive ties of the four determinants of national advantage. Part of the analysis in this paper will identify what factor endowments are key for food retailers' decisions to invest abroad.

In addition to the determinants illustrated in Figure 2, Porter also names home country domestic demand as an important determinant of a national competitive advantage for an

industry. If the home consumers have sophisticated tastes, then companies located in that country will be more able to produce products that not only meet their home' country consumer demand, but foreign consumer demand as well. Similarly, if the home country market is segmented, the firm will gain a competitive advantage in global segments for products that account for a high percentage of their home market demand but a small percent of possible competitors' home markets.

Section 2.1: Real-Options Literature

It is not clear how food retailers consider market risk in their investment to invest abroad or how such risk affects the timing of their investment. One way we might be able to understand this aspect of the firms decision is with the aid of real options theory. Real Options theory expands on the net present valuation (NPV) capital budgeting technique. It is different from NPV because it takes into consideration the ability to delay investment decisions. In doing so, it accounts for the additional volatility that delaying the investment develops over time. Real options can be used for investments that are considered both irreversible and can be delayed. The firm's investment opportunity is like a perpetual call option. In order to invest, the firm's net present return from the project must outweigh investment costs by at least the cost of the option (Dixit and Pindyck 1995). It gives the firm the right, but does not commit it to buying a share of the stock at the pre-specified price. An irreversible decision involves sunk costs that cannot be recovered later. With regard to firm strategy, it can capture the value of moving quickly into a market (i.e. being a first-mover) or deciding to delay entry.

For food retailing firms investing into another country, the irreversible costs of the investment include (but are not limited to) advertising costs; setting up supply networks; hiring staff; and, in some cases, paying government fees to enter the country. The risks involved with the decision to foreign direct invest include not only the chance that consumer expenditures on

goods and services may decrease after entry, but also the foreign exchange rate of the nation's currency (e.g. pesos to dollars) may increase and decrease the return from sales in that country. The following section describes real options theory in more depth so that one may see how it will be incorporated into the methodology for this research.

Leurhman (1998) outlines a simplified method to calculate the real option value for an investment. To begin, one needs to determine how long an investment can be delayed. Then, in the even that it can be delayed, calculate the present value of the money needed for the future investment (X) in time (t) using the risk-free rate of investment (r_f). This assumes that if a firm delays investment they will put the money they would have used in the investment in a risk-free account until they are ready to use it. So, the present value of the money needed to make the investment is

$$PV(X) = \frac{X}{(1+r)^t}.$$

The interest earned by investing PV(X) until it is needed or the difference between X and PV(X) is a partial measure of the value of the option to delay investment. This creates a modified net present value (NPVq) that is the difference between in the value of the investment or its stock price (S) and the cost of the investment (PV(X)) or

"modified" NPV=S-PV(X)

"Modified" NPVq is easiest to work with if it is never negative. So, Leuhrman adjusts it so that $NPVq = \frac{S}{PV(X)}$. Then, if the NPVq is negative, it is just a ratio between 0 and 1. It is equal to one when the NPV is 0 and it is greater than 1 otherwise. Thus, this is a way to calculate the first part of the value of a real option: the value of delaying the decision.

The second source of option value comes from risk reduction which is a function of the degree of uncertainty about the future. This reflects the probabilities of different outcomes for the project. The most common, weighted measure of this probability is variance (σ^2). The real option price is dependent, specifically, on the variance of project returns (which is dependent of the project's value). Since we are looking at the variance across periods, it becomes cumulative or $\sigma^2 t$. It is, however, easier to work with the standard deviation of the project's returns because its unit are not squared. Thus, the measure of volatility becomes $\sigma\sqrt{t}$ (Leurhman 1998).

The value of the option is found using the Black-Scholes valuation table for a European Call options (Leurhman 1998). The return on the value of the project from this table is used to calculate the value of the option, which is then compared to conventional NPV. If the value of the call option is greater than the NPV, then it the firm may want to delay its investment. The option expires when the investment can no longer be deferred.

Section 3: Data

Data on the number of grocery retailing stores (including hypermarkets, supermarkets, cash and carry stores, discount stores) is from the *European Grocery Retailing 2002* report by IGD Information, Research and Education. It includes moderately detailed information about the top thirty food retailers in Europe. It is of use in this research because it reports how many stores each food retailer has in a foreign country. Please see Table 2 for an overview of the data.

Information about the affiliate country's market characteristics (e.g. population growth rate, internet use, Gross Domestic Product per capita, exchange rate, and each country's economy) are taken from The World Bank Development Indicators database (The World Bank 2004).

Section 4: Methodology

Computing a real option for foreign direct investment for each firm for each market is time and data consuming. It would require information not only about the volatility of the investment, but also the cost of investment for each firm. This is nearly impossible to calculate without comprehensive access to a food retailing firm's detailed financial documents. In this research, regression analysis is used to test whether or not there may be a real option value associated with food retailing firms' decisions to foreign direct invest. Specifically, it will test the following null hypothesis:

- Volatility in the growth of a country's gross domestic product (GDP) has a positive effect on the inflow of FDI into food retailing.

It will do this without including the actual real option value, but, instead, elements of the real option including the volatility in each affiliate country's annual GDP growth This variable can also be used to test the significance of national wealth on FDI by food retailers into affiliate countries.

Additional strategic variables will also be included to test hypothesis based on Porter's work. Using the World Develop Indicators' data, the following null hypothesis will be tested:

1. The number of passenger cars negatively impacts the firm's decision to invest abroad.
2. FDI in the food retailing sector is not affected by the amount of information technology infrastructure in that country.
3. There is a negative relationship between FDI into a country's food retail sector and its net trade in all goods and services.

The first hypothesis relates to the mobility of the affiliate country's population and the infrastructure endowment the country has and how these affect the food retailer's decision to locate there. The second hypothesis is used to test Porter's idea that it is easier to advertise and

conduct business in countries with good mediums for advertising and information technology. The third hypothesis assumes that if a country imports a lot of goods, the foreign retailers are likely to have more of an advantage selling those goods too. The more goods and services, in general, that a country's consumers take-in, then the more sophisticated the consumers must be. If the companies are more likely to locate in countries where consumers are more sophisticated, then one would expect the alternative hypothesis to stand in this case. Testing the final hypothesis will help explain the relationship between consumer's income levels and FDI in food retailing.

The general function of the estimation is

$$NS_i = \alpha + \beta_1 S_i + \beta_2 P_i + \beta_3 I_i + \beta_4 U_i + \beta_5 T_i + \beta_6 T_i + \beta_7 R_i + \varepsilon_i$$

where

NS_i	=	Number of European owned stores in the country i
S_i	=	The standard deviation of annual growth in GDP for the affiliate countries from 1990 to 2001
C_i	=	The average number of passenger cars per 1,000 people in country i
U_i	=	The millions of people in the affiliate country i that uses the internet
T_i	=	The net trade in goods and services for country i (billions of in United States Dollars)

The number of stores owned by European retailers in the home country is chosen as a proxy for the food retailing FDI flow of capital into the country because other FDI data, specific to the food retailing sector, is not available.

Section 5: Initial Results

Regression analysis results indicated that many of the variables are significant. The regression including the following countries: Algeria, Belize, Chile, China, Colombia, Czech Republic, Ecuador, Hungary, Malaysia, Morocco, Paraguay, Philippines, Poland, Romania,

Singapore, the Slovak Republic, Solomon Islands, Trinidad and Tobago, Tunisia, Uruguay, and Venezuela. Algeria, Belize, Ecuador, the Philippines, the Solomon Islands, and Trinidad and Tobago were included as control countries. These countries have similar development and economic characteristics to at least one of the countries that are listed in Table 2, but have not received any FDI in the food retailing sector from European countries. Thus, there $NS_i = 0$. Exchange rate data was not available for all observations so some of the other countries listed in Table 2 are not included because of the missing exchange rate data.

Table 2. Parameter coefficient estimates and statistics for an ordinary least squares regression of the number of stores in affiliate countries based on the explanatory variables below.

Variable	Parameter Estimate	Standard Error	t-value	p-value
Intercept	42.09	64.94	0.65	0.5267
S_i	-38.43	18.87	-2.04	0.0597
C_i	2.09	0.33	6.34	<0.001
U_i	9.84	4.26	2.31	0.0356
T_i	-6.74	3.77	-1.79	0.0940

The R^2 for the model is 0.79. The variable measuring the standard deviation of the percentage change in the GDP over the last ten years was found to be negative and has a significant t-statistic at a 5% level for a one-tailed t-test. The negative sign associated with the variable indicates that firms prefer markets with decreased variability in wealth and, thus, consumer expenditure. It also indicates that there is not a real option value for food retailers investing abroad. Firms prefer markets with more stability in wealth. Firms do not enter the market despite obvious volatility in returns.

The coefficients for the number of passenger cars per capita, number of internet users, and net trade in goods and services where all significant at the 5% level, using a single tailed t-

test. The positive relationship between the number of passenger cards per one thousand people and the level of foreign direct investment by European food retailers is a measure of the level of technology adoption of country, its wealth, and the kinds of infrastructure that supports European food retailing. The increase in the use of passenger cars is likely to not only reflect an increased ability of consumers to come to Western-style supermarkets, but also of a more developed road system that the retailers can use to meet their supply needs.

The positive relationship between the number of stores and the number of internet users in the country does support the alternative hypothesis that the number of foreign owned food retailing stores in a country is positively related to the level of information technology infrastructure. Having readily available internet access would bring down the communication costs of doing business with the home firm or corporate headquarters.

The hypothesis that there is a negative relationship between FDI into a country's food retail sector and its net trade in all goods and services is not rejected. It appears that there is a very negative relationship between the size of the country's trade in goods and services and the FDI in its food retail sector. The NTGS variable could take on both positive and negative values depending on whether the country was a net exporter or importer.[1] The sign on the coefficient indicates that countries that are net exporters are less likely to receive investment than countries that are net importers.

The population growth rate and real interest rate variables were not significant. This may be due to the fact that they are year 2001 values. In future analysis, it would be a good idea to use longer-term averages for these numbers, set on a time horizon similar to that used to measure the variability in the exchange rate and average gross national income per capita.

[1] The absolute value of net trade in goods and services was also used to replace NTGS in the regression, but was insignificant.

Section 6: Preliminary Conclusions

The regression results do not indicate that there may be a real option value associated with foreign direct investment in developing countries' food retailing sectors. The information from this model is helpful in explaining what countries are likely to receive investment into their food retailing sector. The development and use of the country's automotive transportation, its internet technology, and the net size of the country's economy are strong predictors of the likelihood that it will receive foreign direct investment to its food retailing sector from abroad. It also demonstrates the role of a modern transportation system and infrastructure to the development of an industrialized "downstream" agriculture sector. These findings are congruent with many of the principles set forth by both Caves and Porter. Countries with developed infrastructure are more likely to receive foreign direct investment. Moreover, information technology makes doing business abroad easier.

Using this with information, along with more regional information similar to that produced by Weatherspoon and Reardon (2002), Reardon and Berdegué (2002), and Reardon et al. (Forthcoming) will enable economist to more accurately predict which countries are more or less likely to receive food retailing FDI and what the impact will be on their food retailing and processing sector if FDI does occur.

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Tables and Figures

Table 1. The Top 25 Global Retailers in 2001 (Deloitte Touche Tohmatsu 2002)

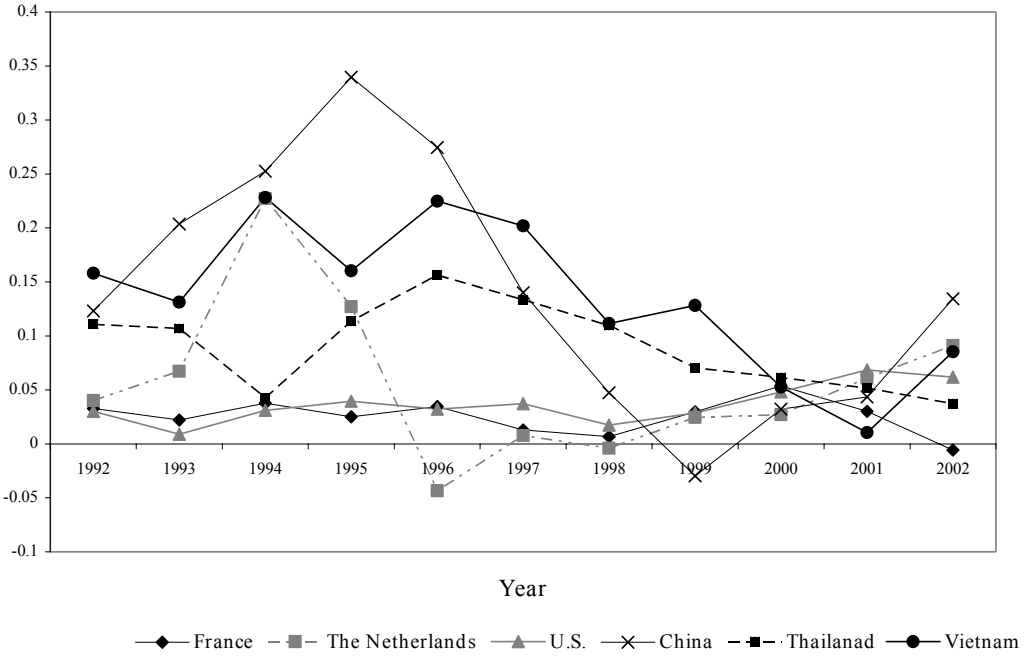
Rank	Country of Origin	Name of Company	Formats	2000 Retail Sales (US$mil)	2000 Income (US$mil)	Countries of Operation
1	U.S.	Wal-Mart	Discount, Warehouse	191,329	6,295	Argentina, Brazil, Canada, China, Germany, South Korea, Mexico, Puerto Rico, UK, US
2	France	Carrefour	Cash & Carry, Convenience, Discount, Hypermarket, Supermarket	59,703	967	Argentina, Belgium, Brazil, Chile, China, Colombia, Czech Rep., France, Greece, Indonesia, Italy, Japan, Malaysia, Mexico, Poland, Portugal, Singapore, Slovakia, Spain, S. Korea, Switzerland, Taiwan, Thailand, Turkey
3	U.S.	Kroger	Convenience, Department, Drug, Specialty, Supermarket	49,000	677	US
4	U.S.	Home Depot	Specialty	45,738	2,581	Argentina, Canada, Chile, Puerto Rico, U.S.
5	Germany	Metro	Department, Hypermarket, Mail Order, Specialty Supermarket, Warehouse	42,439	388	Austria, Belgium, Bulgaria, China, Czech. Rep., Denmark, France, Germany, Greece, Hungary, Italy, Luxembourg, Morocco, Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Switzerland, Turkey, UK
6	Netherlands	Ahold	Cash & Carry, Convenience, Discount, Drug, Hypermarket, Specialty, Supermarket	41,539	1,034	Argentina, Brazil, Chile, Czech Rep., Denmark, Ecuador, El Salvador, Estonia, Guatemala, Honduras, Indonesia, Latvia, Lithuania, Malaysia, Morocco, Netherlands, Norway, Paraguay, Peru, Poland, Portugal, Spain, Sweden, Thailand, US
7	U.S.	Kmart	Discount	37,028	(244)	Guam, Puerto Rico, US Virgin Islands
8	U.S.	Albertson's	Drug, Supermarket	36,762	765	US
9	U.S.	Sears	Department, Mail Order, Specialty	36,548	1,343	Canada, Puerto Rico, US
10	U.S.	Target	Department, Discount	36,362	1,264	US
11	U.S.	Safeway	Supermarket	31,977	1,092	Canada, US
12	U.S.	JcPenney	Department, Drug, Mail Order	31,846	(705)	Brazil, Mexico, Puerto Rico, US

Rank	Country of Origin	Name of Company	Formats	2000 Retail Sales (US$mil)	2000 Income (US$mil)	Countries of Operation
13	U.K.	Tesco	Convenience, Hypermarket, Supermarket	31,751	1,162	Czech Rep., France, Hungary, Poland, Rep. of Ireland. S. Korea, Slovakia, Taiwan, Thailand, UK
14	U.S.	Costco	Warehouse	31,621	631	Canada, Japan, Korea, Mexico, Taiwan, UK, US
15	Germany	Rewe	Cash & Carry, Convenience, Department, Discount, Hypermarket, Specialty Supermarket	31,100	N/A	Austria, Bulgaria, Czech Rep. France, Germany, Hungary, Italy, Poland, Romania, Slovakia, Ukraine
16	France	Intermarche	Convenience, Discount, Hypermarket, Restaurant, Specialty Supermarket	30,698	423	Belgium, Bosnia, France, Germany, Italy, Poland, Portugal, Spain
17	France	Auchan	Convenience, Hypermarket, Restaurant, Specialty Supermarket	29,134	282	Argentina, China, France, Hungary, Italy, Luxembourg, Mexico, Morocco, Poland, Portugal, Spain, Taiwan, Thailand, US
18	Germany	Edeka/AVA	Convenience, Discount, Supermarket, Hypermarket,	28,782	28,782	Austria, Czech Rep., Denmark, France, Germany, Luxembourg, Poland
19	Japan	Ito-Yokado	Convenience, Department, Discount, Hypermarket, Restaurant, Specialty, Supermarket	25,381	446	Canada, China, Denmark, Japan, Malaysia, Mexico, Norway, Philippines, Singapore, South Korea, Sweden, Taiwan, Thailand, Turkey, US
20	UK	J. Sainsbury	Convenience, Hypermarket, Supermarket	25,266	393	France, UK, US
21	Germany	Tengelman	Convenience, Drug, Department, Discount, Hypermarket, Restaurant, Specialty, Supermarket	25,154	N/A	Austria, Canada, China, Czech Rep., Denmark, France, Germany, Hungary, Italy, Poland, Portugal, Slovakia, Slovenia, Spain, Switzerland, US
22	Japan	Aeon (Jusco)	Convenience, Drug, Department, Discount, Hypermarket, Restaurant, Specialty, Supermarket	22,859	205	Canada, China, Japan, Malaysia, Taiwan, Thailand, US
23	France	E.Leclerc	Hypermarket, Supermarket	22,541	314	France, Poland, Portugal, Slovenia, Spain

Rank	Country of Origin	Name of Company	Formats	2000 Retail Sales (US$mil)	2000 Income (US$mil)	Countries of Operation
24	Japan	Daiei	Convenience, Department, Discount, Hypermarket, Specialty Supermarket	22,433	419	China, Japan, US
25	U.S.	Walgreen	Drug	21,207	777	Puerto Rico, US

Figures

Figure 1: Consumer Expenditure Growth Rates for Asian, Europe, and the United States from 1992 to 2002



Euromonitor 2003a, 2003b

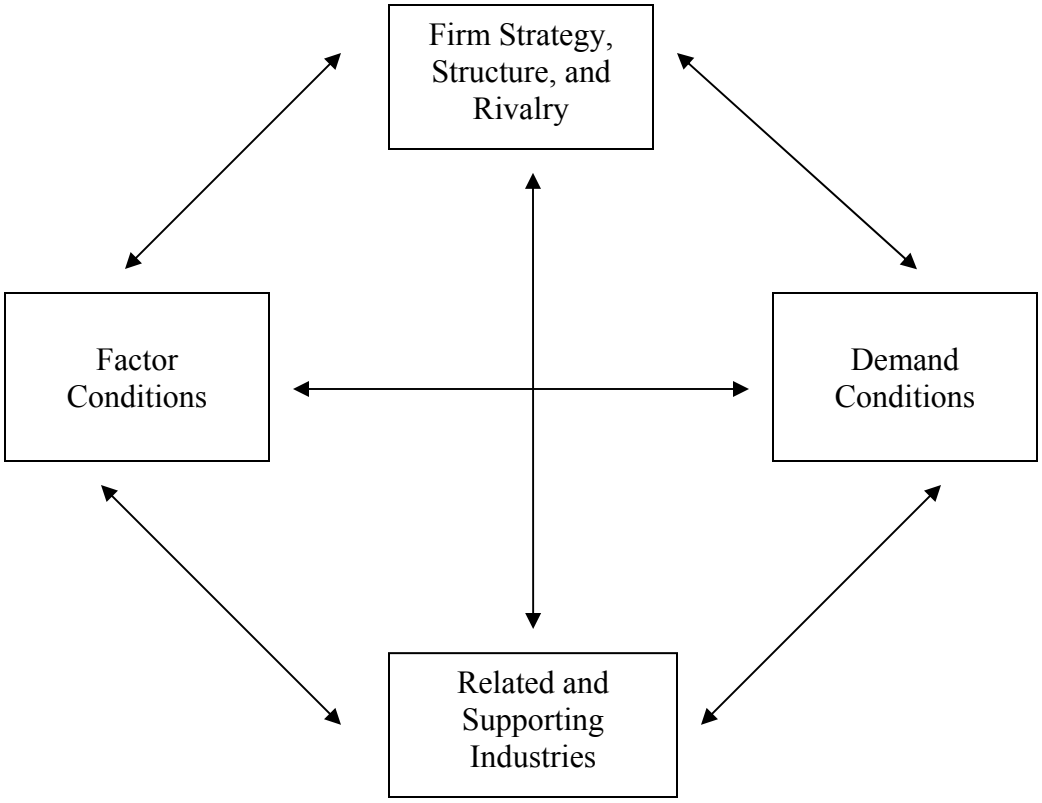


Figure 2. The Determinants of National Advantage (Porter 1990)

Table 2: Number of Food Retailing Stores (Hyper, Super, Convenience, Cash N' Carry, Discount) in Each Country

Countries	Ahold	Auchan	Carrefour	Cora-Louis	Casino	Dansk	Delhaize	Edeka	Intermarche	Leclerc	Lidl	Metro	Rewe	TOTAL
Argentina	236	3	403		44									686
Bosnia									2					2
Brazil	110				443									553
Bulgaria												6	4	10
Chile	76		4											80
China		21	27									15		63
Columbia			5		91									96
Croatia												1	8	9
Czech Republic	203		8				94	36			40	9	161	551
Estonia	3													3
Guatemala*	144													144
Hungary		4		226								29	200	459
Indonesia	21		8				29							58
Japan			3											3
Latvia	26													26
Lithuania	38													38
Malaysia	39		6											45
Mexico		4	19		8									31
Morocco		7												7
Paraguay	11													11
Peru	31													31
Poland	165	26	60		77	54		40	68	8		75		573
Romania			1	3			10					11	10	35
Russia												2		2
Singapore			1				31							32
Slovakia	2		3				16				10	4	30	65
Slovenia										1				
South Korea			22											22
Taiwan		14	26		12									52
Thailand	44		15		29		26							114
Tunisia			1											1
Urkraine													5	5
Uruguay					45									45
Venezuela					52									52