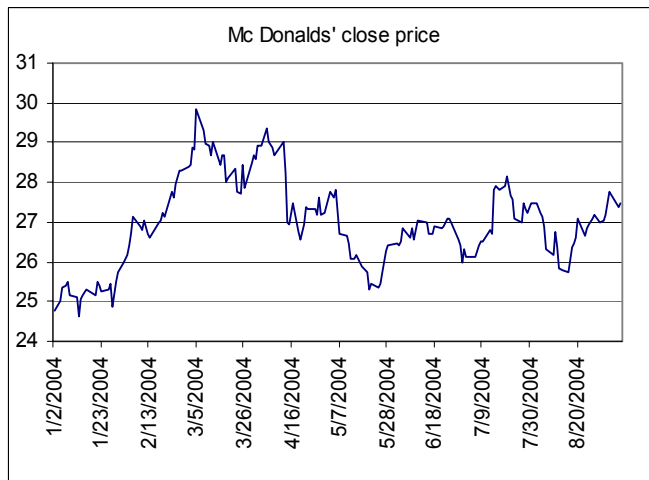




Equity Research

McDonald's Corporation (MCD)



Rating

Target Price
Market Price

Hold

\$34.7
\$31.3

Trading Data

52-wk range	\$23.01 - \$31.58
Market cap.	\$39.3 Bill
Shares o/s	1,260 Mill
Avg. daily volume ('000)	4,900

Mac Calva

mac.calva@yale.edu

Manuel Lecour

manuel.lecour@yale.edu

Highlights

- McDonald's new strategy focusing on increasing existing restaurant revenues and the introduction of new products that fit the trends in the market has proven to bring the big giant back into a positive business trend.
- We forecast a 4.6% sales growth rate, already discounted by the market, resulting in a target price of \$34.7.
- Most important risk factor is uncertainty about margins of new products as the trends toward healthier eating habits could increase salads' importance in total revenues.

Please see the disclaimer at back of this report for important information

© 2004, Mac Calva and Manuel Lecour

Company Overview

McDonald's Corp. (MCD) operates and franchises more than 30,000 fast food restaurants in over 100 countries. About 27% of those restaurants are operated by the Company, around 60% are franchised, and the rest are operated by subsidiaries.

Systemwide restaurants at year end⁽¹⁾

	2003	2002	2001
U.S.	13,609	13,491	13,099
Europe	6,186	6,070	5,794
APMEA	7,475	7,555	7,321
Latin America	1,578	1,605	1,581
Canada	1,339	1,304	1,223
Other	942	1,083	1,075
Total	31,129	31,108	30,093

Source: Company's Financial Report

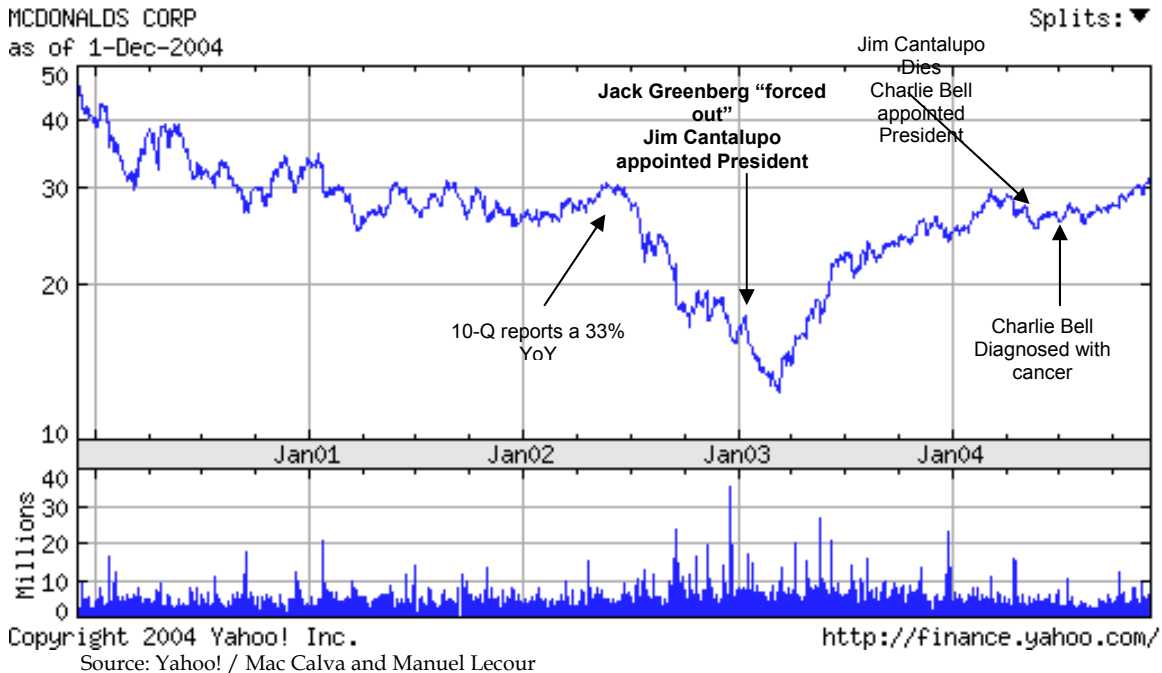
In the United States, the Company operates Boston Market and Chipotle Mexican Grill and has a minority ownership interest in Pret A Manger.

The company reached a low point in 2001, when customer satisfaction surveys showed McDonald's was falling well behind its direct rivals, Wendy's and Burger King. Customers were also switching to healthier offerings, such as Subway's freshly filled sandwiches. McDonald's' strategy at that time was to invest in opening new stores (even when margins were shrinking and complaints from clients were growing) and reduce the price of its products to attract more clients. The company ended 2002 with the first quarterly loss since 1954.

Also, a wave of anti American feeling abroad was hurting revenues and there was a growing concern about obesity and junk food. McDonald's was even sued, so far unsuccessfully, for making people fat.

In January 2003, Jim Cantalupo a company veteran who used to be head of international operations was brought back from retirement to replace Jack Greenberg, forced out as chief executive. The "Plan to Win" (described in the next section,) as the company's recovery strategy is called, is largely Mr. Cantalupo's work. In April 2004, while attending to a convention in Florida, he died after a heart attack.

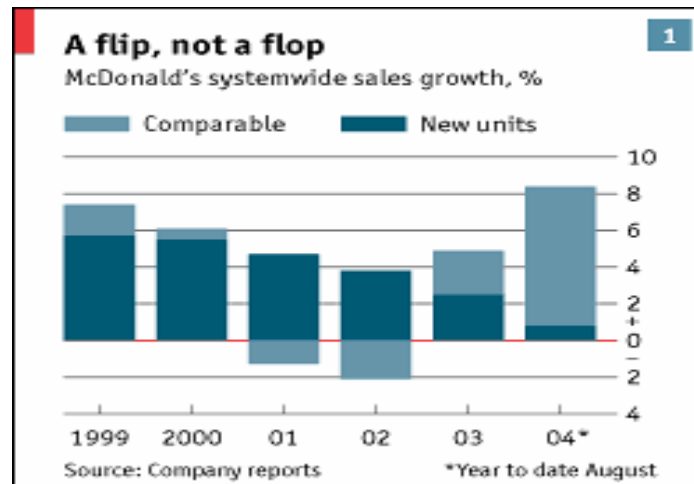
McDonald's swiftly executed a succession strategy already in place. Within hours Charly Bell, a 43 year old Australian promoted by Mr. Cantalupo as chief operating officer was appointed head of the company. Mr. Bell was diagnosed with cancer in May. Even while recovering from treatment, he has decided to resign. Jim Skinner, the 60 year old vice chairman and expert on the firm's overseas operations, became chief executive.



McDonald's smooth handling of its serial misfortunes seems to prove the point that planned succession of a new boss groomed from within the company produces better results than looking for one outside.

The new strategy

In 2003 McDonald's switched to generating more sales from its existing restaurants. In 2004 around 90% of the company's growth is expected to come from incremental sales at its existing restaurants.



Source: The Economist

Capital expenditures for new restaurants decreased \$544 million in 2003 because the company opened fewer restaurants and focused on growing sales at existing restaurants

including reinvestment initiatives such as restaurant reimaging in several markets around the world.

Capital expenditures

IN MILLIONS	2003	2002	2001
New restaurants	\$ 617	\$ 1,161	\$ 1,198
Existing restaurants ⁽¹⁾	564	659	571
Other properties ⁽²⁾	126	184	137
Total	\$ 1,307	\$ 2,004	\$ 1,906
Total assets	\$25,525	\$23,971	\$22,535

Source: Company's Financial Report

Ratio analysis shows the poor performance of the company during 2001 and 2002 and how it improved during 2003.

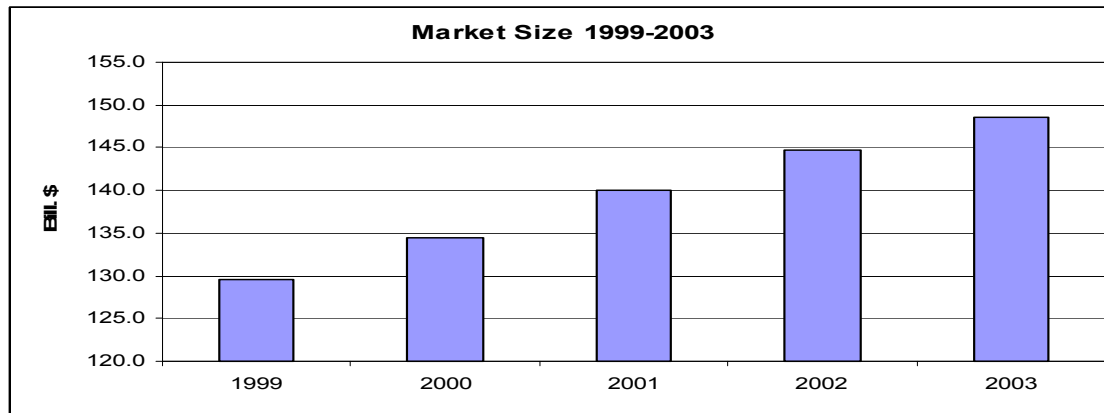
ROE analysis

	1999	2000	2001	2002	2003
ROE (Net Income / Equity)	18.8%	20.0%	17.2%	8.7%	12.3%
ROA (Net Income / Assets)	9.3%	9.1%	7.3%	3.7%	5.8%
Financial Leverage (Assets / Equity)	2.02	2.19	2.37	2.33	2.13
ROE = ROA*Financial Leverage	18.8%	20.0%	17.2%	8.7%	12.3%
Net Interest expense after tax	266	288	303	251	260
NOPAT	2,213	2,265	1,940	1,144	1,731
Operating WC	(1,575)	(766)	(670)	(762)	(705)
Net long term assets	17,699	18,447	18,473	20,691	21,925
Net Debt	5,760	7,777	8,315	9,649	9,238
Net Assets	16,124	17,681	17,803	19,930	21,220
Net Capital	16,124	17,681	17,803	19,930	21,220
Effective interest rate after tax	4.6%	3.7%	3.6%	2.6%	2.8%
NOPAT margin	16.7%	15.9%	13.0%	7.4%	10.1%
Asset turnover	82.2%	80.6%	83.5%	77.3%	80.8%
Operating ROA	13.7%	12.8%	10.9%	5.7%	8.2%
Spread	9.1%	9.1%	7.2%	3.1%	5.3%
Net Financial Leverage	55.6%	78.5%	87.6%	93.9%	77.1%
Financial leverage gain	5.1%	7.2%	6.4%	3.0%	4.1%
ROE	18.8%	20.0%	17.2%	8.7%	12.3%

The key driver of the decrease in ROE was the shrinkage in profits. The strategy put in place in 2003 resulted in higher ROE but the ratio is still far from previous years. In the Valuation section we discuss our view on profit margins going forward.

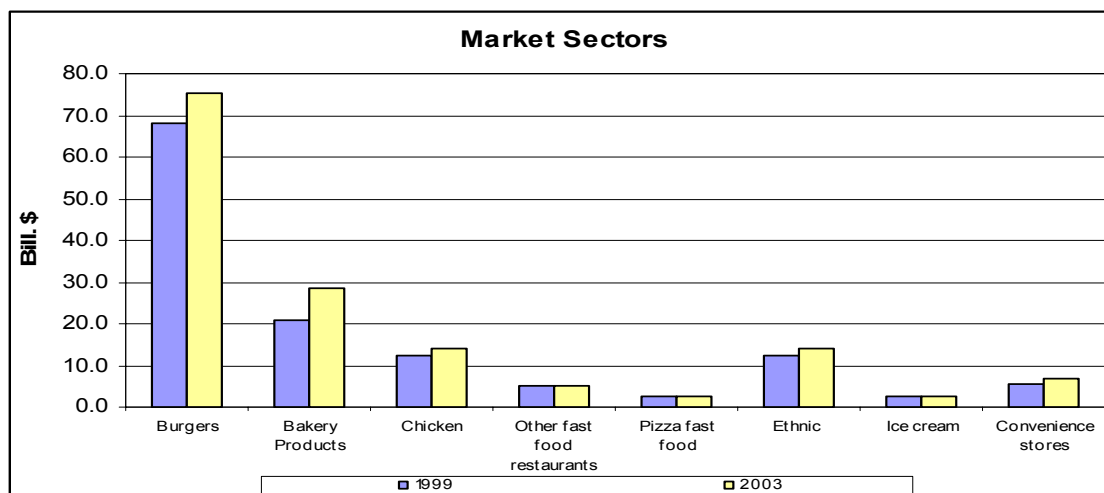
Economic Environment

The fast food industry is mature, characterized by lower growth and larger players. After growing 2.6% with respect to the previous year, in 2003 total sales were \$148.6 Bill.

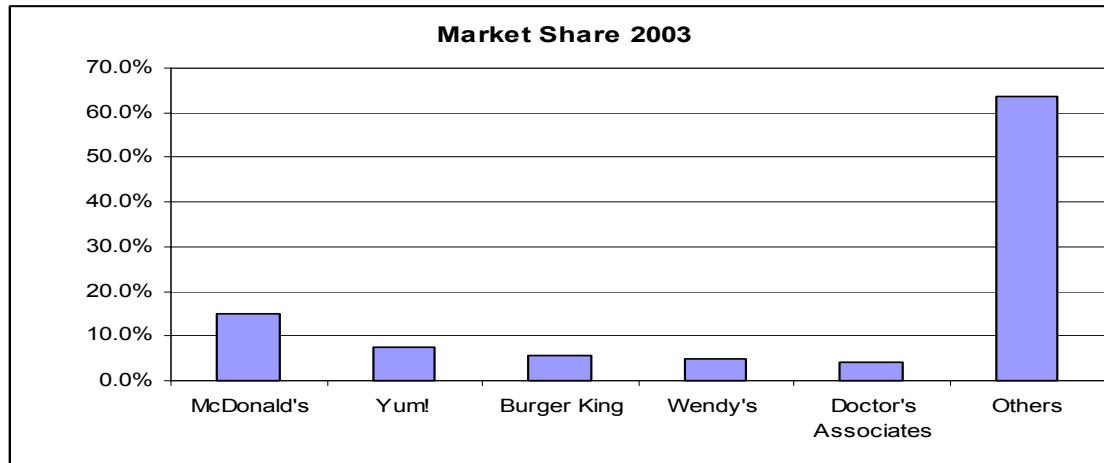


Source: National Restaurant Association

Clearly the most important sub-sector is Burgers with \$75.2 Bill. followed by Bakery Products with \$28.4 Bill. The market is fragmented with the top five firms accounting for less than 37% of the market and McDonald's being the largest of them.



Source: National Restaurant Association



Source: National Restaurant Association

Sales drivers

Most important forces behind Fast Food restaurants sales growth are:

Disposable income. Given that its primary customer demographic is skewed towards lower income groups Fast Food is quite cyclical as its customer base suffers great impacts on disposable income during economic recessions.

Information on new healthier products. New product news cycle, healthier and higher quality, has become an important driver as the increasing popularity of diets such as Atkins and South Beach have pushed restaurants to offer a healthier option to consumers.

Franchising business model prevails

Within Fast Food restaurants franchise models are common. Franchise models can grow faster using others' capital and have some insulation from costs since royalties are paid as percentage of revenues. On the other hand, company-owned models have greater control over pricing, operations and can close underperforming restaurants more quickly.

Key challenges

Obesity lawsuits. Obesity lawsuits have been dismissed thus far, but their potential risk to the segment remains.

Intensity of competition. The intensity of competition continues to escalate. In a survey conducted by National Restaurant Association operators were asked to estimate the intensity of competition using a 1-100 scale. Average responses were 73 for 2002, 77 for 2003 and 82 for 2004.

Changes in consumer spending. Even when the average bill is around \$5, low income sectors suffer great impact during economic downturns. Then, if consumer spending slows restaurants sales will go down as well.

Valuation

DCF analysis

Our DCF model gives a price of **\$34.7**, slightly above current market price.

Revenue Projections

As we described in previous reports restaurants sales growth has two sources: same store sales growth and new stores sales. McDonald's management has decided to focus the company efforts in increasing sales at existing restaurants and they expect that only 100 basis points of the total sales growth will come from new restaurants.

In order to forecast existing restaurant sales we assumed that sales will grow at a rate close to GDP growth of 3.4%. Based on projections by The Economist Intelligence Unit, we calculated the expected growth of GDP in different regions and then averaged that growth rate giving more weight to those regions where the company's sales are higher.

GDP growth projections

	2004	2005	2006	% of MCD sales
USA	4.3%	3.1%	2.9%	36.0%
Europe *	2.4%	2.0%	1.8%	32.0%
UK	3.3%	2.2%	1.8%	
Germany	1.7%	1.8%	1.9%	
France	2.3%	1.9%	1.8%	
World	5.0%	4.2%	4.6%	32.0%
Weighted average	3.9%	3.1%	3.1%	

Average of period	3.4%
--------------------------	-------------

* Estimated as an average of the three listed countries.

Adding the 100 basis points management expects to get from new restaurant openings, we obtain a total growth rate of **4.4%**.

We used a second approach to forecast sales growth that consisted in calculating growth excluding currency effect in the last two years for different regions and then averaging giving more weight to those areas where sales are larger. With this approach we got a sales growth rate of **4.6%**.

	% of total sales	2001	2002	2003	Average
US	36%	5,396	5,423	6,039	
<i>Growth excluding currency effect</i>			<i>0.5%</i>	<i>11.4%</i>	<i>5.9%</i>
Europe	32%	4,752	5,136	5,875	
<i>Growth excluding currency effect</i>			<i>3.0%</i>	<i>0.0%</i>	<i>1.5%</i>
APMEA	15%	2,203	2,368	2,447	
<i>Growth excluding currency effect</i>			<i>7.0%</i>	<i>-3.0%</i>	<i>2.0%</i>
Latin America	7%	971	814	859	
<i>Growth excluding currency effect</i>			<i>9.0%</i>	<i>14.0%</i>	<i>11.5%</i>
Canada	4%	608	633	778	
<i>Growth excluding currency effect</i>			<i>6.0%</i>	<i>9.0%</i>	<i>7.5%</i>
Other	6%	940	1,032	1,142	
<i>Growth excluding currency effect</i>			<i>11.0%</i>	<i>10.0%</i>	<i>10.5%</i>
Total sales		14,870	15,406	17,140	
Weighted average					4.6%

Given the results obtained with these two approaches we feel confident projecting a growth rate of **4.6%**.

Profit Margin

The average profit margin for the last three years has been **16.1%**. This is the margin we used in our projections.

Management expects to increase company operated restaurant margins by 35 basis points per year beginning in 2005. It is not clear how the plan to do this so we assume that profit margins will remain constant during the forecasted period.

McDonald's does not publicly break down sales and profits of its individual items. But anything that involves fresh, perishable produce that does not come in a standardized and easily storable form (i.e., lettuce compared to a frozen hamburger patty), increases complexity and costs. Management insists their salads are priced to be profitable; arguing that if they were not its franchisees would not want to sell them. The truth is that even if they were losing money on salads franchisees might want to have them in the menu because they attract people that could also consume other profitable products. If salads have lower margins than hamburgers and they increase their weight in total sales, McDonald's might find it hard to maintain its profit margins.

If we take a five year average, profit margins were 18.8%. This number is influenced by the figures of years 1999 and 2000. We believe that margins were higher in those years because salads were not an important component of the menu; therefore, we consider the three year average of **16.1%** is more representative of the company's margins.

	1999	2000	2001	2002	2003
Profit Margin	24.2%	22.0%	18.1%	13.7%	16.5%
5 year average	18.9%				
3 year average	16.1%				

Source: Company's Financial Report

We ran a sensitivity analysis in order to see how much stock price would change with variations in growth rates and profit margins with the following results:

		<u>Profit Margin</u>		
		15.0%	16.1%	18.8%
<u>Sales growth rate</u>	3.0%	\$ 24.20	\$ 28.59	\$ 39.60
	4.0%	\$ 27.57	\$ 32.31	\$ 44.20
	4.6%	\$ 29.70	\$ 34.70	\$ 47.30

The range of prices goes from \$24.20 to \$47.30; however, we highlighted the most likely values in this analysis.

Multiples Valuation

Based on the common practice by analysts to determine the market value of a company based on multiples of comparable companies, we analyzed the market to book (P/B) and the price to earnings (P/E) current ratios and compared them to those of MCD. We also did an average of the previous 5 years of P/E ratios of McDonald's and compare them to the current value.

Consistent with previous reports, we decided to test trading strategies based on valuations by multiples before relying any recommendation on the stock that we are covering. Considering that we had tested in the past trading strategies based on P/E (price to earnings) ratios of comparable companies and proved that the strategy did not produce a better risk return profile than investing in the portfolio of comparable companies¹, in this occasion we tested trading strategies based on P/B (market to book) and 5-Year trailing P/Es of the same company. We also considered using dividend yields as a measure of value of the company; however, most of the companies in our comparable set, had not distributed any dividends in the period that we analyzed, so we did not have a meaningful set of information to work with.

¹ See Appendix 2: Comparable search and business descriptions

Comparable P/B

We obtained the P/B values for the comparable companies for the period of July 1984 to May 2004 and compared the average P/B value of that group to the one of MCD in every month of the period. The strategy consisted in going long if MCD was below the average and short otherwise. We obtained an expected return of 0.02% with a standard deviation of 7.07%, while going long in the portfolio of comparable companies in the same period resulted in an expected return of 0.50% and a standard deviation of 6.00%. With these results, we can conclude that trading based on P/B ratios does not result in a better strategy than investing in the portfolio and that an investor should not base his or her investment decision just by looking at comparable multiples².

Trailing P/E

This strategy is based on the idea that the premium that a company receives is constant over time and that if at any point the P/E value is below the average, then we should buy the stock and make a positive return by selling when the value go back to the "true" value.

In this case, we obtained information of the company for the period of July 1984 to May 2004; however since we needed the 5-Year P/E average to compare to the current value and determine whether to buy or sell, we started testing the strategy in June 1989.

The expected return of the strategy was -0.20% with a standard deviation of 7.26%. These results were compared to the return of the portfolio of comparable companies and to the return of always going long in the same stock. The expected returns were 0.41% and 0.98% respectively, while the standard deviations were 6.18% and 7.19%³.

In this case, as in our previous analyses, we conclude that the risk return profile for trading based on trailing P/Es has worse risk/return profile than strategies that have nothing to do with multiples. Therefore, we would not make any recommendations on the valuation of the company based on this criterion.

Valuation results

Having said this, below are the results of the valuations using multiples.

² See Appendix 3. P/B trading strategy

³ See Appendix 4. Trailing P/E strategy

Company name	P/B	P/E
AFC Enterprises	5.31	25.87
CKE Restaurants	4.94	N/A
Domino's Pizza	N/A	21.6
Jack in the Box	2.39	17.51
Papa John's International	4.48	27.94
Wendy's International	2.27	16.66
YUM! Brands	8.96	19.79
Average	4.725	21.56

McDonald's	3.05	19.81
------------	------	-------

MCD 5-Y Trailing P/E*	22.83
-----------------------	-------

* As of May 2004

These results show that based on P/B, comparables P/E and trailing P/E, the company is undervalued.

Appendix

Appendix 1 DCF

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EBITA	2,882	3,026	3,160	3,305	3,459	3,617	3,783	3,958	4,140	4,330
Taxes on EBITA	(979)	(1,024)	(1,071)	(1,120)	(1,171)	(1,225)	(1,282)	(1,341)	(1,402)	(1,467)
NOPLAT	1,904	2,003	2,089	2,185	2,288	2,392	2,502	2,617	2,737	2,863
Depreciation	1,161	1,173	1,184	1,196	1,208	1,220	1,233	1,245	1,257	1,270
Change in WCR	19	(6)	(6)	(6)	(6)	(7)	(7)	(7)	(8)	(8)
Capex	1,449	1,463	1,478	1,492	1,507	1,522	1,538	1,553	1,569	1,584
FCF	1,597	1,718	1,802	1,895	1,995	2,096	2,204	2,316	2,434	2,557
PV FCF	12,603	24%								
Continuing Value	40,846	76%								
PV Firm	53,449									
Value of Debt	9,731									
PV Equity	43,718									
Shares outstanding	1,260									
Stock price	\$ 34.70									
Current price	\$ 31.28									
WACC	9.3%									
Growth	3.0%									

Assumptions for WACC calculation

Risk free rate	4.27%
Beta	0.85
Market risk premium	7.40%
Cost of debt	5.27%
Cost of Equity	10.59%
Tax rate	33.00%

WACC	9.29%
-------------	--------------

Appendix 2 Comparables search

To determine the set of comparables that we used for the valuation with P/Bs, we used the following methodology using the Hoover's database:

1. We did a search for McDonald's and in the section "Pro Tools" we specified the following criteria:
 - a. That the company is US based
 - b. That it is a public company
 - c. Sales between 10B and 25B
 - d. Fast Food & Quick Service Restaurants

This search resulted in 2 companies out of which one was McDonald's.

2. We reviewed the "Competitors" section in Hoover's and obtained 3 companies under the category "Top Competitors." Two of them were eliminated because they were private companies and the other was the same one identified in the previous search.
3. We expanded our search to the "All Competitors" section in Hoover's. This resulted in 12 companies; however we only retained 6 of them because the other 6 had been identified in previous searches or were private companies.

As a result we obtained the following set of comparable companies:

- AFC Enterprises Inc. (AFCE):
- CKE Restaurants (CKR)
- Domino's Pizza, Inc (DPZ)
- Jack in the Box, Inc. (JBX)
- Papa John's International, Inc. (PZZA)
- Wendy's International, Inc. (WEN)
- YUM! Brands Inc (YUM)

Business descriptions⁴

- AFC Enterprises Inc. (AFCE): AFC Enterprises is counting on Popeye's strength to carry its business. AFC is the #3 operator of fast-food chicken restaurants (by sales) behind KFC and Chick-fil-A, with more than 3,300 Church's Chicken and Popeyes Chicken & Biscuits locations around the world, yet it is selling off a number of its holdings. The company is selling international franchising rights for Seattle's Best Coffee to FOCUS Brands, the parent of ice cream chain Carvel. (The company also sold cinnamon roll chain Cinnabon to FOCUS Brands in 2004.) AFC has agreed to sell Church's to Crescent Capital, which owns Caribou Coffee. Investment firm Freeman Spogli, owned in part by directors John Roth and Ronald Spogli, owns about 27% of AFC.
- CKE Restaurants (CKR): Selling fast food is the M.O. of CKE Restaurants. The company is a leading operator of quick-service food chains with about 3,225 locations. Its restaurants include Carl's Jr. and Hardee's, two leading brands in the hamburger business, and La Salsa Fresh Mexican Grill, an up-and-coming player in the fast-casual Mexican restaurant segment. CKE also owns Green Burrito, a small fast-food Mexican chain. Many of the company's restaurants are located in California and other western states; its Hardee's outlets operate primarily in the Midwest and Southeast. CKE owns and operates more than a third of its restaurants; the rest are operated by franchisees.
- Domino's Pizza, Inc (DPZ): Domino's knows the rules of the pizza delivery game. The company is the world's #2 pizza chain (behind YUM! Brands' Pizza Hut division), with more than 7,400 locations in more than 50 countries. It features several different styles of pizza with a wide array of topping options, as

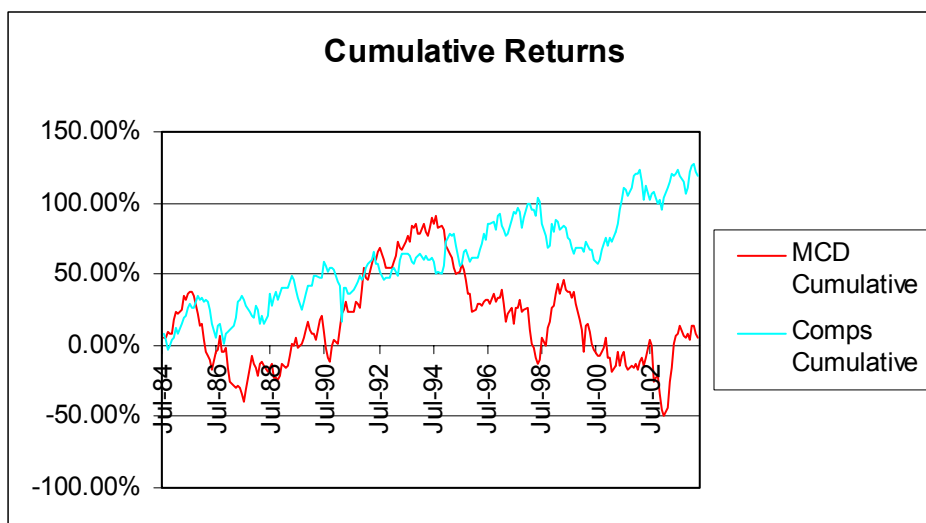
⁴ All the short business descriptions were taken from Hoover's

well as additional items such as bread sticks, cheese bread, and chicken wings. Domino's stores are principally delivery locations and generally do not have any dine-in seating. More than 90% of its locations are franchised. Thomas Monaghan founded Domino's with his brother James in 1960. Bain Capital controls 45% of Domino's.

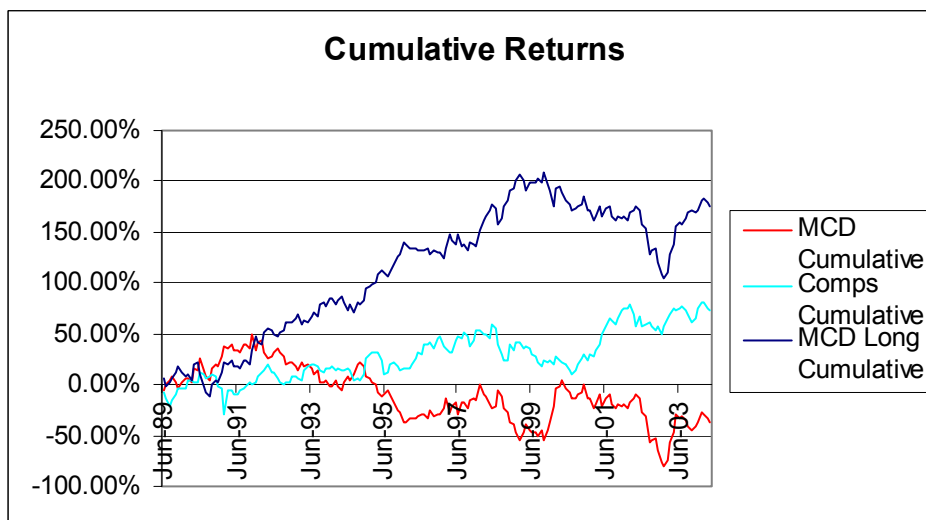
- Jack in the Box, Inc. (JBX): Led by a pugnacious "CEO" with a Ping-Pong ball for a head, Jack in the Box is among the leading quick-service restaurant businesses in the US. The company operates and franchises nearly 2,000 of its flagship hamburger outlets in 17 states, primarily in the West and Southwest. The chain offers standard fast-food fare (burgers, fries, and soft drinks) along with salads, tacos, and breakfast items. About 1,550 locations are company-owned while the rest are franchised. In addition to its mainstay burger business, Jack in the Box runs a chain of more than 150 Qdoba Mexican Grill fast-casual eateries through its Qdoba Restaurants unit.
- Papa John's International, Inc. (PZZA): You can safely say that Papa John's International makes a lot of dough. The company is the #3 pizza chain (behind YUM! Brands' Pizza Hut division and Domino's) with nearly 3,000 pizzerias across the US and more than a dozen other countries. Its restaurants offer a variety of pizza styles and topping choices, as well as a few specialty pies such as The Works and All the Meats. Papa John's locations typically offer delivery and carry-out service only. In addition to its signature brand, the company has about 135 Perfect Pizza franchises in the UK. Papa John's owns and operates about 20% of its locations. Founder and CEO John Schnatter owns 30% of the company.
- Wendy's International, Inc. (WEN): What a difference a Dave makes. Thanks to the vision and aw-shucks personality of late founder and spokesperson Dave Thomas, Wendy's is the #3 hamburger chain by sales. Its sales trail only McDonald's and Burger King. There are more than 6,500 Wendy's restaurants worldwide, 80% of them franchised. They offer burgers and fries as well as alternative items such as baked potatoes, chili, and salads. In addition to the company's core concept, Wendy's owns Tim Hortons, the Canadian-based coffee and baked-goods chain (more than 2,500 locations, most of them franchised), and Baja Fresh Mexican Grill (more than 280 quick-service restaurants, about half of which are owned by franchisees).
- YUM! Brands Inc (YUM): Chicken, pizza, and tacos -- oh my! YUM! Brands (formerly TRICON Global Restaurants) is one of the largest fast-food franchisers in the world, trailing only McDonald's in overall sales. It outnumbers the burger giant, however, in store locations, with more than 33,000 units in about 100 countries. (The company owns and operates almost a quarter of its stores and franchises most of the others.) The company's flagship brands include KFC, Pizza Hut, and Taco Bell. Yum! also owns A&W All-American Food Restaurants and Long John Silver's. The company has disposed of its stake in Yan Can, a start-up fast casual Asian restaurant chain.

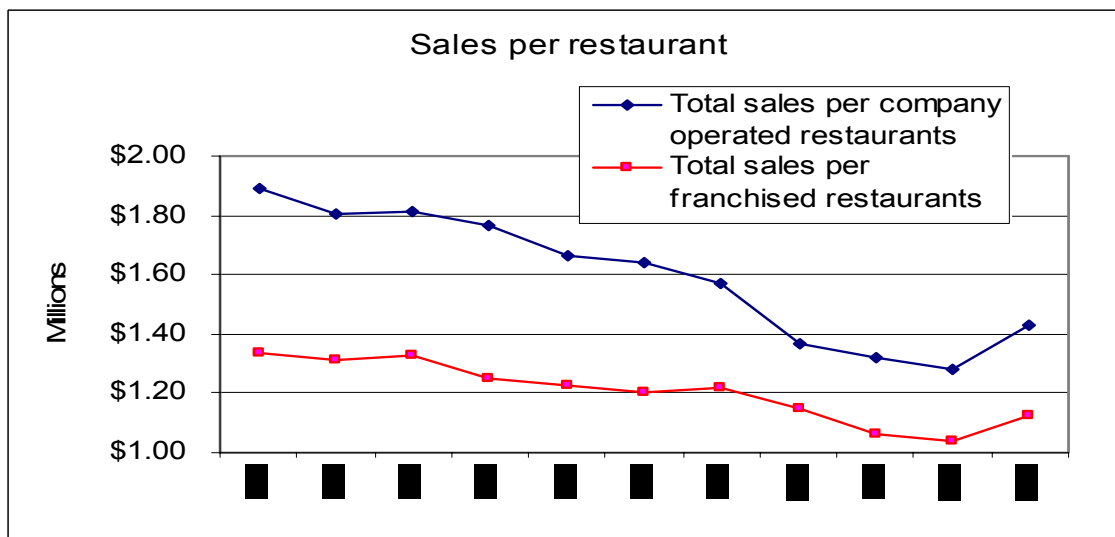
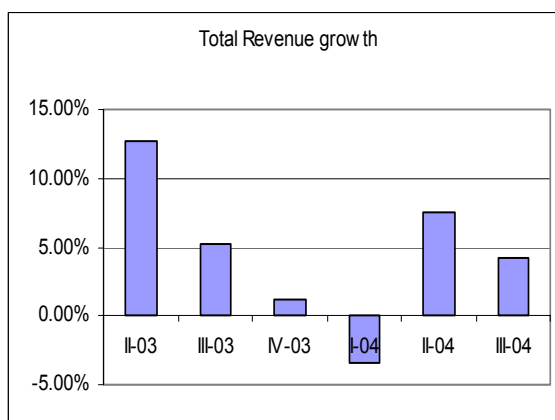
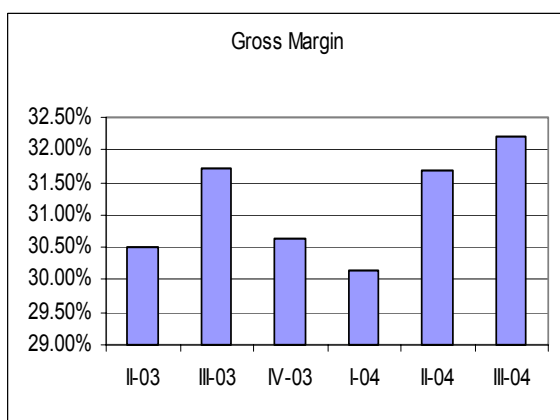
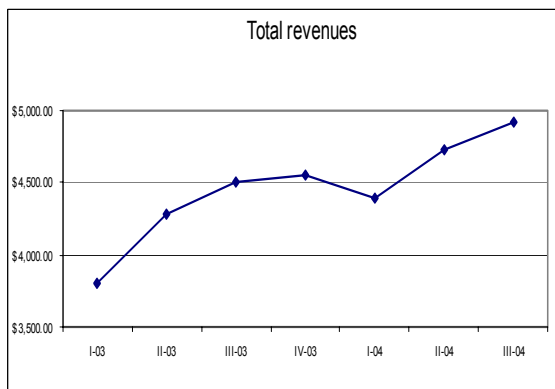
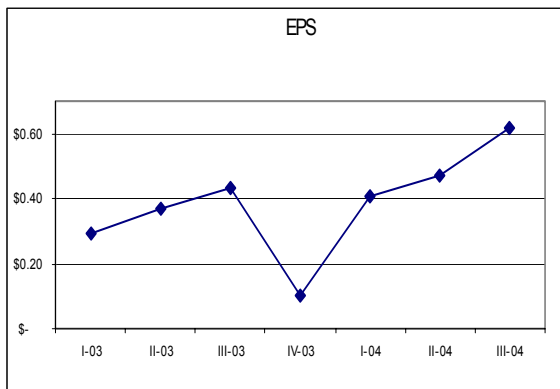
Appendix 3 P/B trading strategy

Summary		
	1M Expected Return	Std Deviation
MCD	0.02%	7.07%
Comps	0.50%	6.00%

**Appendix 4 Trailing P/E strategy**

Summary		
	1M Expected Return	St. Deviation
MCD	-0.20%	7.26%
Comps	0.41%	6.18%
MCD Long	0.98%	7.19%





Sources:

- Goldman Sachs report on the industry December, 2003
- Standard & Poor's report on McDonald's Corporation. November, 2004
- National Restaurant Association website (www.restaurant.org)
- SEC filings for McDonald's Corporation
- Annual Financial Report for McDonald's Corporation
- The Economist
- The Economist Intelligence Unit
- SEC Disclosure
- WRDS
- St. Louis Fed website
- S&P's Net Advantage
- Onesource
- Hoover's
- Yahoo Finance
- www.wsj.com
- www.economist.com

Important Disclaimer

Please read this document before reading this report.

This report has been written by MBA students at Yale's School of Management in partial fulfillment of their course requirements. *The report is a **student and not a professional** report.* It is intended solely to serve as an example of student work at Yale's School of Management. It is not intended as investment advice. It is based on publicly available information and may not be complete analyses of all relevant data.

If you use this report for any purpose, you do so at your own risk. **YALE UNIVERSITY, YALE SCHOOL OF MANAGEMENT, AND YALE UNIVERSITY'S OFFICERS, FELLOWS, FACULTY, STAFF, AND STUDENTS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, ABOUT THE ACCURACY OR SUITABILITY FOR ANY USE OF THESE REPORTS, AND EXPRESSLY DISCLAIM RESPONSIBILITY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, CAUSED BY USE OF OR RELIANCE ON THESE REPORTS.**