

Un esempio di analisi fondamentale

Nissan Motors: a fundamental analysis

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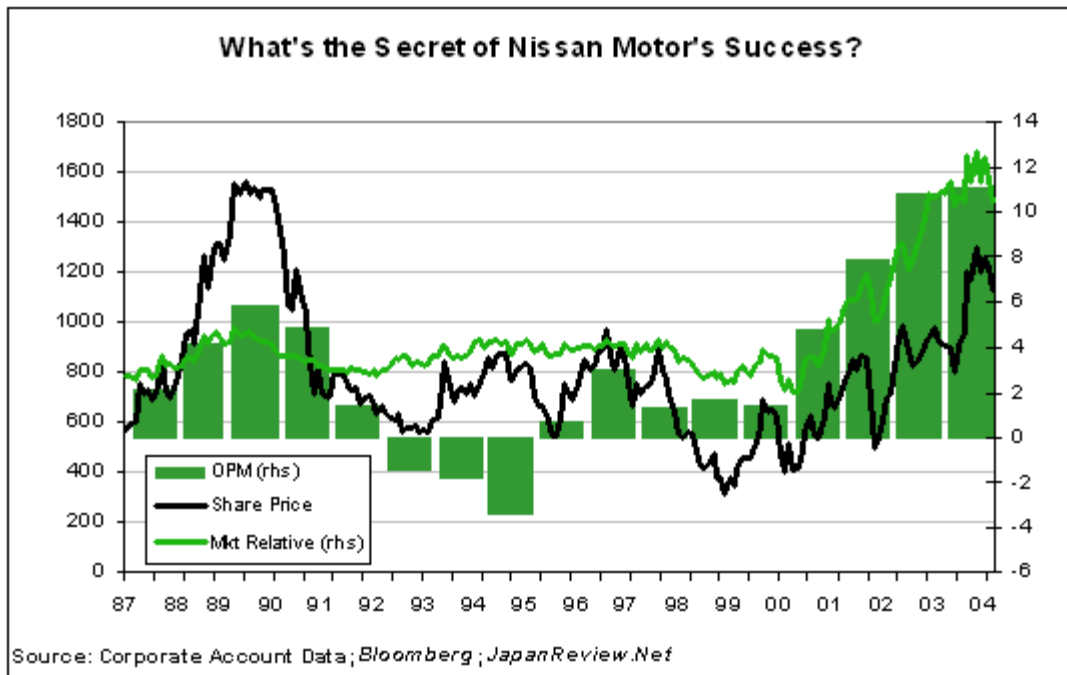
Abstract: What is the key to Nissan Motor's meteoric share price rise? Are the rumors of the turnaround as real as its publicity machine would have us believe? Why did Nissan-Renault succeed, but Mazda-Ford and DC-MMC fail? In this essay, I analyze the fundamentals of these companies looking at the usual metrics of a comparative cross-sectional and time-series analysis. Emphasis is placed on public information before and after their respective tie-ups for a long-term overview of change. The conclusion: change has taken place, to be sure, but not every metric is as rosy as advertised at Nissan Motors. Buyer beware.

Fundamental analysis, in contrast to technical (chartist) analysis, is predicated on the belief that a firm's share price is determined by its so-called "core intrinsic value," or future course of earnings. These future earnings are valuable in that, theoretically, larger profits eventually lead to larger dividend payouts to shareholders. The fundamental analyst, either through a "top-down" (i.e., economic analysis, industry analysis, and then stock analysis) or "bottom-up" (i.e., stock analysis only) approach, tries to determine this value by forecasting publicly available data. The process usually includes, but is not limited to, an assessment of the firm's balance sheet, income (profit & loss) statement, and cash flow statement.

By using data in a time series to compare the fundamentals of three similar Japanese automotive companies that are engaged in foreign tie-ups, we should be able to analyze the relative strengths of management in controlling profitability as well as the market's confidence in the value of their company's future course of earnings growth. The proceeding sections will, in small part, try to demonstrate the process.

Nissan Motors: Share Price Follows Earnings Growth?

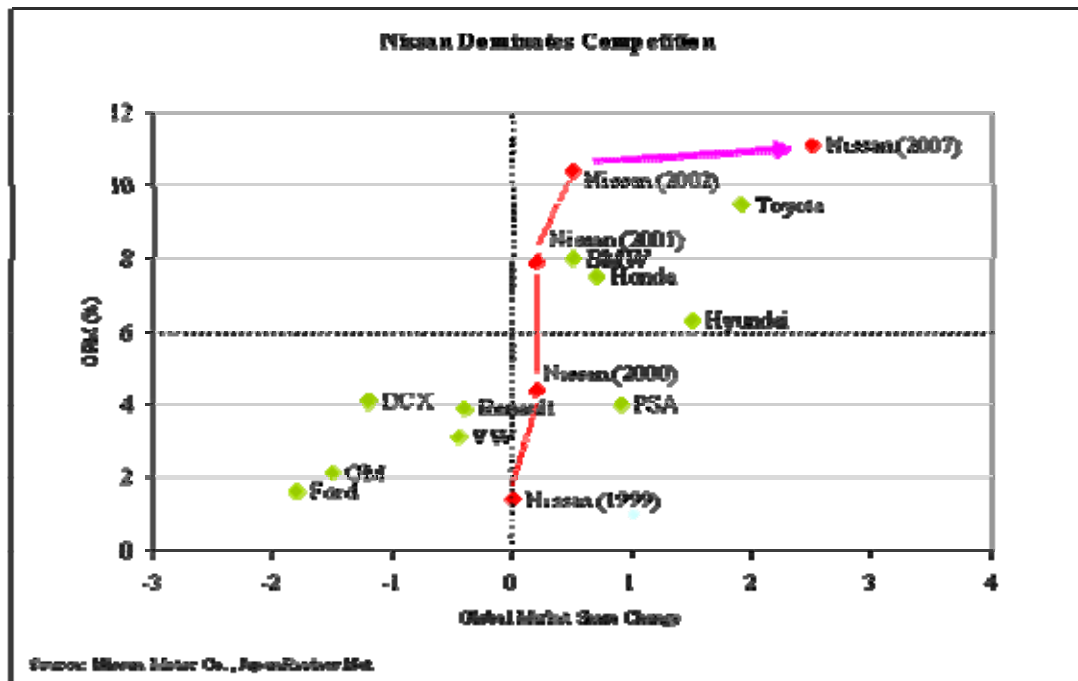
The first chart shows the the absolute share price performance of Nissan Motor Co (JP Stock Code: 7201) and its corresponding earnings potential. The stock faced downward pressure beginning in May 1989. The share price peaked at 1560 yen per share and fell to as low as 360 yen per share by October 1998. In keeping with the fundamentalist view of stock valuation, this 80% decline in Nissan Motor's share price tracked the relative decline in the firm's future course of earnings. The operating profit margin, or OPM, is one such metric of the firm's profitability; it measures only what management directly controls (i.e., its "core" business profitability as a percentage of total sales) less interest payments and taxes. The OPM peaked at 3.5% in 1989, fell to as low as -0.1% in 1992, and proceeded to average 1.5% thereafter. These "squeezed" margins are one indication to shareholders that the future course of earnings, and therefore the firm's share price, may be overvalued.



The Effects of "Turnaround"

Nissan Motor Co's "turnaround" corresponds with its tie-up with French automobile corporation, Renault. The Renault Nissan Alliance was signed on March 27, 1999. Renault gave Nissan a \$5.4bn cash infusion in exchange for a 36.8% equity stake in the company. Carlos Gohn, then executive vice president at Renault, was appointed Nissan's chief operating officer (COO), arrived in Japan in the spring of 1999 and implemented the so-called Nissan Revival Plan (NRP). The NRP began to produce immediate results.

The OPM (above) increased from 2% in 1999 to as high as 11.1% in 2003 -- the highest among global automotive companies (below). In addition to increased sales growth, asset streamlining, and cost-cutting, Nissan Motor Co. achieved on-going market share expansion from 4.6% globally in 1999 to 5.3% in 2003 (below).



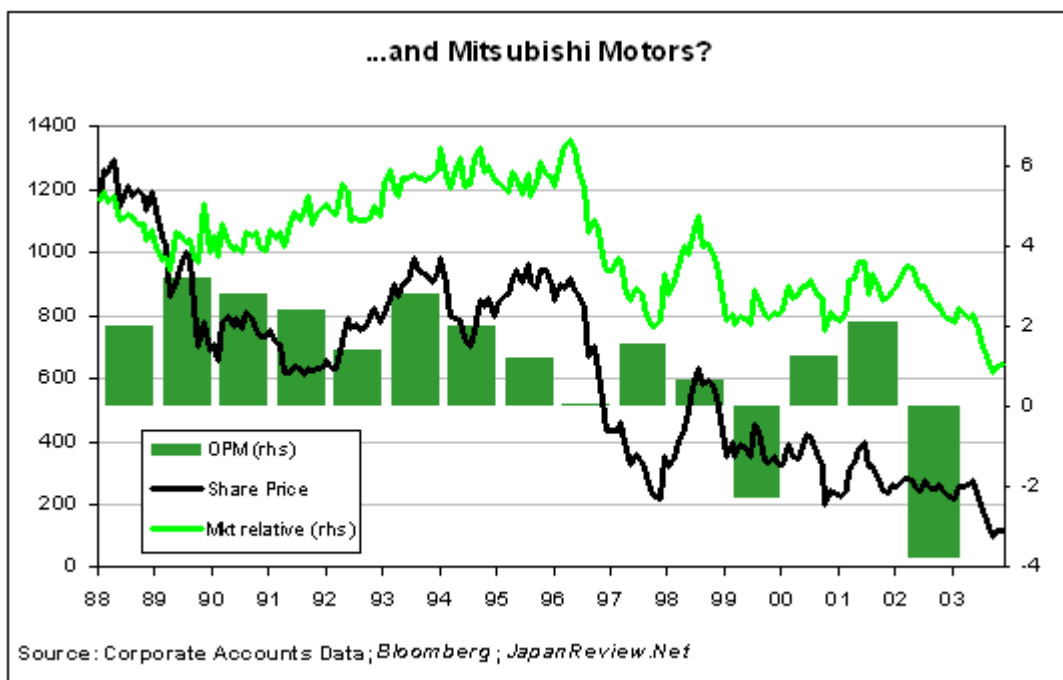
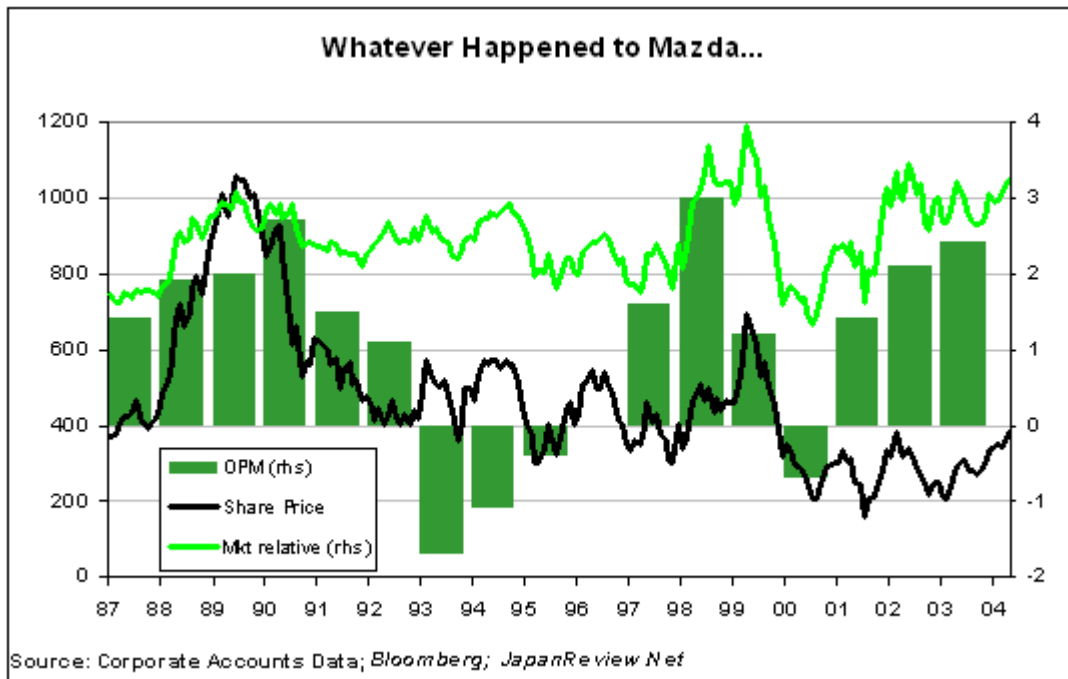
How does Nissan Motors compare to its sector peers? The two charts below plot the same profitability ratios of Mazda Motors (Code: 7261) and Mitsubishi Motors (Code: 7211) alongside their respective share prices in a time series. All three companies have similar product lines, revenue streams, market exposures, and asset bases.

Unlike the Renault Nissan Alliance, the Ford-Mazda and DaimlerChrysler-Mitsubishi Motors tie-ups produced limited success for these Japanese automakers. Time series and cross sectional analyses should provide some answers as to why.

Time-Series Analysis

Like Nissan Motors, both Mazda and Mitsubishi Motors (hereafter MMC) experienced modest OPM expansion and brief, albeit strong, share price gains from 1987 to 1991. The bursting of the bubble economy in 1991 led to an economic downturn, thereby suppressing domestic demand for new automobiles. Net parent revenues for all three companies were generally stagnant from 1991 to 1995 as unit car sales were sluggish, significant cost cutting did not prevent gross profit and operating profit margin erosion, and return on capital subsequently fell.

Following the appreciation of the yen, unit sales started their long decline for all three companies (starting in 1997). However, a series of vehicle defect recalls and cover-up scandals at MMC have seriously hindered the demand for domestic sales over the past few years. With falling sales, a badly tarnished brand image and automotive-division debts of more than ¥700bn, MMC stands on financially uncomfortable ground relative to its sector peers. What is clear is that, despite popular opinion, exchange rate shifts should not have a major impact on Mazda or MMC. (Click [here](#) for a sensitivity analysis of foreign exchange exposure.)



Cross-Sectional Analysis

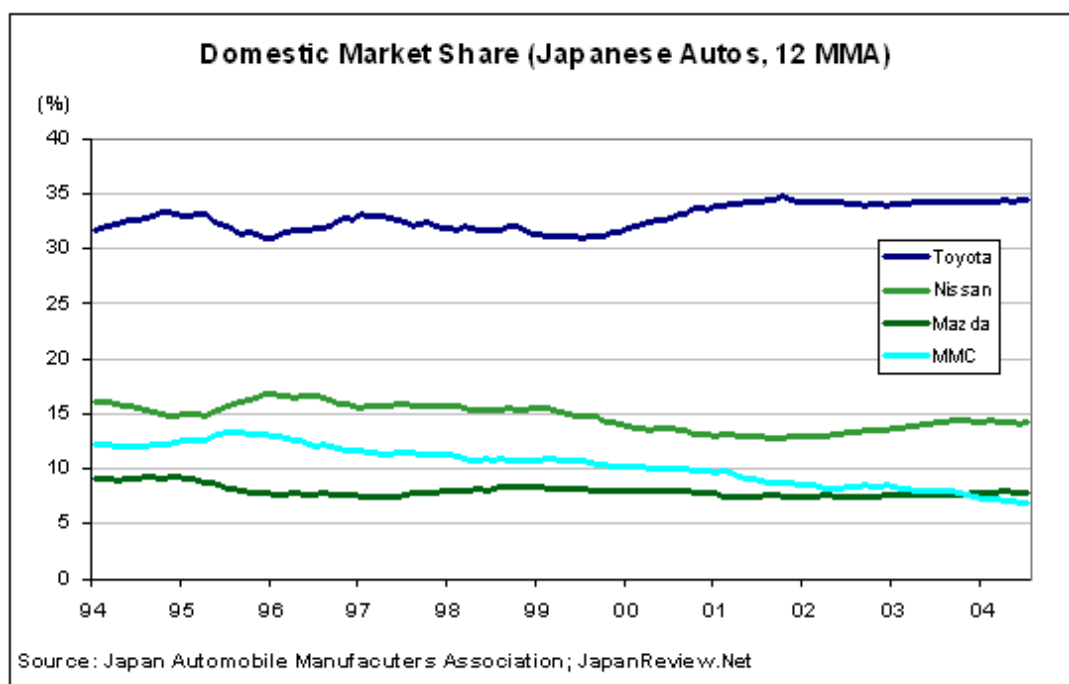
The firm's ability to operate profitably can be measured directly by measuring its return on assets. ROA (return on assets) is the ratio of a firm's operating profit to its total assets, expressed as a percentage. ROA measures how well a firm's management uses its assets to generate profits. It is a better measure of operating efficiency than ROE, which only measures how much profit is generated on the shareholders equity but ignores debt funding.

As the table indicates, Nissan currently has the highest consolidated ROA. Its turnaround is largely the increase in short-term operating efficiency gains and, to a lesser extent, changes in its capital structure. Moreover, the recent build-up in the U.S. division and global marketing strength have all

contributed to its 10.9% ROA. However, a 7.3% ROA in Japan, while good, still suggests the firm may be hindered by overcapacity. Both Mazda and MMC continue to hold minimal market share (4.2%) in a fairly fragmented sector. MMC continues to see an erosion of its market share and is now the seventh largest domestic manufacturer, down from sixth-place last year (see chart below). Its concentration of total consolidated assets in the Japanese and US markets (56.2% and 31.8%, respectively) continues to be a problem for shareholders.

The combination of asset growth to unit price deflation and weak sales growth led to a sharp deterioration in asset turnover for Nissan and Toyota. This decline in asset turnover can be viewed as a sharp decline in overall network productivity. I believe this may be a cause for concern in the future if previous expectations continue to outpace productivity gains.

	Mazda	Nissan	MMC	Toyota	
Japan, ROA		3	7.3	1.7	10.9
% total assets		86.7	61.1	56.2	45.7
America, ROA		3.2	10.9	-18.6	4.4
% total assets		11.2	46.6	31.8	31.7
Europe, ROA		4.6	8.1	5.5	-1
% total assets		6.6	7.7	7.7	31.7
Consolidated, ROA		2.8	10.5	-4.6	6.6



Internal Liquidity (Solvency) Analysis

Solvency ratios look at business risk. The stronger a firm is from a financial standpoint, the less risky it is. The current ratio compares current assets (i.e., cash, marketable securities, accounts receivable, inventory, etc.) to current liabilities. However, its usefulness is hampered in two ways: current liabilities have to be paid with only one kind of current asset--cash. Therefore, the ratio is only a good measure of solvency if the accounts receivables and inventories are relatively liquid (i.e.,

their turnover rates are relatively high.) If inventories are not liquid, the quick ratio may be a more appropriate metric. If neither inventories nor receivables are liquid, the cash ratio may be the better indicator of solvency, because it is the most conservative solvency measure.

Judging from the financial ratios of the Japanese automotive companies below, the sector's leader in solvency is Toyota Motors. The sector's average inventory turnover for the past seven years is 9.7x. Toyota, the largest automotive company, has an above-average inventory turnover (11.9x) suggesting a solid stream of sales; an above-average cash ratio (1.4x) suggesting it may be hoarding cash; and an above-average quick ratio (0.6x). Branding, quality, innovation and the optimal capital structure (suggesting managerial strength) all contribute to Toyota's internal liquidity ratios.

Nissan Motor's pre-Renault alliance (1999) indicates a company with serious financial difficulties: liquidity ratios were below the sector average, asset turnover suggested operating inefficiencies throughout the consolidated network, and payables turnover was low. Carlos Ghosn's 3 year revival plan changed that. First, Nissan's receivables turnover improved over the seven year period from 11.7x in 1997 to 16.1x in 2003 suggesting sterner credit policies. In effect, the rise in receivables also explains the improved current ratio. Second, its declining quick ratio stems more from the short-term sale of its marketable securities in such cross-share holdings as Subaru than unwise short-term investments.

Mazda and MMC, however, appear to be operating at the lower end of the historical sector average. The current ratio for both companies is below 1x indicating that current liabilities exceed current assets. This partially explains Mazda's relatively high receivables turnover. In order for liquidity to be maintained, the company needs to have a fairly strict credit policy. The risk comes to such high turnover adversely affecting net sales. At one point, customers may prefer the type of 0% down, 0% payments for 12 month periods that MMC tried (and failed) to implement effectively in the United States. (Note that decline in MMC receivables turnover from 2002 to 2003.) Also, Mazda and MMC continue to demonstrate relatively low inventory turnovers for the past several years. In the case of MMC, this inefficiency can be partially explained by MMC's cover-up scandals lowering sales. In the case of Mazda, the inefficiency stems more from its failure to effectively promote new models.

Mazda	1997	1998	1999	2000	2001	2002	2003
Current ratio	0.98	0.86	0.79	0.76	0.79	0.82	0.87
Quick ratio	0.69	0.6	0.49	0.45	0.37	0.45	0.45
Cash ratio	0.25	0.23	0.3	0.32	0.25	0.31	0.29
Asset turnover	1.4	1.39	1.47	1.16	1.21	1.35	1.62
Inventory turnover	8.43	10.67	9.05	7.51	6.03	7.26	8.07
Receivables turnover	5.62	6.78	13.51	16.03	18.51	17.85	20
Payables turnover	9.18	9.93	8.32	7.53	6.78	6.2	7.61

MMC	1997	1998	1999	2000	2001	2002	2003
Current ratio	0.73	0.66	0.7	0.63	0.53	0.58	0.55
Quick ratio	0.12	0.39	0.39	0.29	0.22	0.18	0.24
Cash ratio	0.07	0.09	0.09	0.06	0.05	0.05	0.12
Asset turnover	1.11	1.15	1.2	1.1	1.11	1.6	1.24
Inventory turnover	5.67	7.4	8.17	7.85	8.67	11.6	7.84
Receivables turnover	38.38	5.88	6.46	7.38	9.2	18.66	13.47

Payables turnover	5.84	5.82	5.77	4.35	5.3	7.69	6.26
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Nissan

Current ratio	0.75	0.79	0.95	0.98	1.17	1.27	1.21
Quick ratio	0.32	0.39	0.41	0.28	0.27	0.26	0.21
Cash ratio	0.2	0.25	0.25	0.09	0.09	0.09	0.06
Asset turnover	0.83	0.95	0.91	0.94	0.86	0.93	0.95
Inventory turnover	7.11	10.62	11.77	11.13	11.91	12.34	9.78
Receivables turnover	11.74	13.15	12.14	10.67	11.63	13.63	16.06
Payables turnover	6.5	7.81	7.49	7.71	7.44	7.42	6.91

Toyota

Current ratio	1.42	1.33	1.42	1.45	1.45	1.46	1.28
Quick ratio	0.67	0.62	0.63	0.57	0.54	0.51	0.76
Cash ratio	0.39	0.38	0.39	0.34	0.32	0.3	0.43
Asset turnover	0.84	0.86	0.78	0.77	0.76	0.77	1.17
Inventory turnover	12.42	12.71	12.03	11.33	11.26	11.33	12.47
Receivables turnover	9.38	10.48	9.82	9.85	9.67	10.14	11.12
Payables turnover	8.69	7.94	7.58	7.91	7.77	7.68	7.97

Source: Company reports, *JapanReview.Net*

Analyst Recommendations

Nissan (Code: 7201)

Recommendations	Current	1 Month Ago	2 Months Ago	3 Months Ago
Strong Buy	7	7	8	8
Moderate Buy	9	9	8	8
Hold	4	4	4	4
Moderate Sell	0	0	0	0
Strong Sell	0	0	0	0
Mean Rec.	1.85	1.85	1.80	1.80

Mazda (Code: 7261)

Recommendations	Current	1 Month Ago	2 Months Ago	3 Months Ago
Strong Buy	1	1	1	1
Moderate Buy	7	6	4	5
Hold	7	7	7	10
Moderate Sell	2	2	2	2
Strong Sell	3	3	3	1
Mean Rec.	2.95	3	3.12	2.84

MMC (Code: 7211)

Recommendations	Current	1 Month Ago	2 Months Ago	3 Months Ago
Strong Buy	0	0	0	0
Moderate Buy	0	0	0	0
Hold	1	1	3	2
Moderate Sell	6	7	6	8
Strong Sell	5	5	4	3
Mean Rec.	4.33	4.31	4.08	4.08