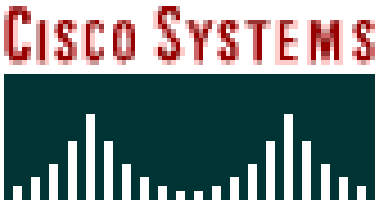
UNIVERSITAT POMPEU FABRA

MBA

FINANCIAL ACCOUNTING CASE STUDY:

Cisco Systems.



11th December 2003, UPF MBA 2005

CISCO SYSTEMS[1]

"I never modeled going from 70 per cent growth - where Cisco stood in November 1999 - to minus 30 per cent growth in 45 days".

BY CHAMBERS (CEO Cisco)

"The poster company for the new economy not only failed to anticipate the economic downturn, its much-heralded forecasting software and outsourcing infrastructure may have even made things worse".

BY SCOTT BERINATO

Company Overview

Cisco Systems, Inc. is the worldwide leader in networking for the Internet. Cisco's Internet Protocol-based (IP) networking solutions are the foundation of the Internet and most corporate, education, and government networks around the world. Cisco provides the broadest line of solutions for transporting data, voice and video within buildings, across campuses, or around the world.

Today, the Internet and computer networking are an essential part of business, learning and personal communications and entertainment. Virtually all messages or transactions passing over the Internet are carried quickly and securely through Cisco equipment. Cisco solutions ensure that networks both public and private operate with maximum performance, security, and flexibility. In addition, Cisco solutions are found in a growing number of medium-sized commercial enterprises.

Cisco was founded in 1984 by a group of computer scientists from Stanford University. Since the company's inception, Cisco engineers have been prominent in advancing the development of IP- the basic language to communicate over the Internet and in private networks. The company's tradition of innovation continues today with Cisco creating leading products and key technologies that will make the Internet more useful and dynamic in the years ahead. These technologies include: advanced routing and switching, voice and video over IP, optical networking, wireless, storage networking, security, broadband, and content networking.

In addition to technology and product leadership, Cisco is recognized as an innovator in how business is conducted. The company has been a pioneer in using the Internet to provide customer support, sell products, offer training, and manage finances. Drawing upon the company's own Internet best practices and core-value of customer focus, Cisco has established the Internet Business Solutions Group (IBSG) dedicated to

[1]Mireia Manent, Vivian Strosek, Sissel Tangen, Valentin Tataru and Max Wuhrer (MBA 2005), with the collaboration of Professor Oriol Amat, Department of Economics and Business, Universitat Pompeu Fabra (Barcelona), 2004 prepared this case as the basis for class discussion rather than to illustrate either effective on ineffective handling of an administrative situation.

helping top business leaders transform their own businesses into e-businesses.

As a company, Cisco operates on core values of customer focus and corporate citizenship. The company's philanthropic efforts are committed to helping communities prosper while also encouraging Cisco employees to learn about the needs of the communities where Cisco operates. Also, to help bolster education around the world, the company has founded Cisco Networking Academies in 128 countries dedicated to teaching students to design, build, and maintain computer networks.

Their worldwide presence is shown in the table below.

Georgraphic Area	%
US	49
Europe, Middle East, Africa	26
Asia/ Pacific	11
Japan	9
American International	5

The Perceived Cisco Model

What is the Cisco model? It is little more than that which Cisco happens to have done in recent years, which has caused Cisco to perform exceptionally well. Namely, the Cisco model is perceived to be one where manufacturing capacity is purchased, rather than being owned. So, Cisco's competitors are hastily ridding themselves of their own manufacturing capacity and desperately seeking suppliers who, so they think, can do for them all that Cisco's suppliers have done for Cisco.

Cisco's History

Cisco was founded in the midst of the digital revolution. The founders created the first router out of sheer frustration. The husband and wife team, who had log-ins on different Unix machines in separate buildings of the university that employed them, were unable to send electronic mail to each other. Their solution to their frustrating problem became the first router. This event and the midwifery of a few venture capitalists gave birth to Cisco.

When Cisco was in its infancy, as recently as a few years ago, the company had no significant manufacturing capacity. If it was going to make money through the sale of routers, then it would have to acquire manufacturing capacity somehow. The lack of manufacturing capacity was Cisco's constraint. The leadership of Cisco, very intuitively and very correctly, opted for the best short-term solution to their company's constraint. They bought manufacturing capacity.

Why was this the correct solution at the time? The answer to why the purchase of manufacturing capacity was the right option lies in the need for speed. Cisco's leadership knew that speed was critical. They knew that trying to build their own manufacturing capacity made as much sense as designing and building a stove, for the purpose of eating dinner. If you have no stove, then you outsource the cooking and eat at a restaurant. Cisco's leadership outsourced the manufacture of their product so that they could sell routers immediately, rather than waiting a couple of years.

For Cisco, at the time when the company purchased manufacturing capacity, that decision was precisely the right decision. In the future, as Cisco grows and as its constraint shifts to some other part of the Cisco system, it is not likely that the purchasing of manufacturing capacity will be the right decision.

So, why are Cisco's competitors blindly emulating Cisco and shedding their own manufacturing capacity? They are emulating Cisco, because they are neglecting one critical fact. The best direction for any dissipative, real system is very much path dependent. It is a strong function of the history of the system. For Cisco, at the time when the decision to outsource manufacturing was made, that was the best direction.

However, none of Cisco's competitors shares Cisco's history. Each of them has its own unique history, which has left it in its current unique state and which dictates its own unique direction. For Cisco's competitors, blindly emulating Cisco and adopting the so-called Cisco model makes as much sense as scheduling gallbladder surgery after learning that your neighbor did well with it.

Cisco before 2000 – the macro picture

Boom:

During the late 90's the technology industry experienced a dramatic boom, which obviously went hand in hand with the growing Internet market. Cisco was the embodiment of this phenomenon. It was the fastest growing company during this period. There has always been a myth about Cisco. The company sold more sophisticated gear over the internet than any other. "When it came to Cisco, everything seemed faster, bigger and better". During this boom the demand was almost impossible to fulfill, and Cisco kept growing at a rapid speed. So, for 43 quarters in a row Cisco met or beat Wall Street's expectations in terms of earnings. They definitely took advantage of the industry's boom in the best way they could. For a short moment Cisco became the most valuable company in the world. Within all this hype, investors forgot that there was an actual company behind the famous Cisco stock.

Uncertainty:

During these promising times nobody at Cisco was too concerned about the future and everybody was busy riding the hype wave. While the industry had some doubts about the future, at Cisco everything seemed perfect.

"There is a confidence that if we execute right, we have a higher probability of winning now than ever before," says Chambers. "I believe the best years are in front of us."

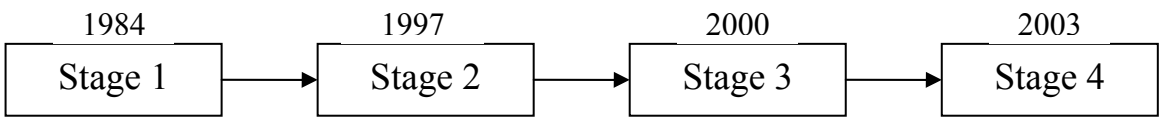
In the technology and internet industry there was a big fear that the whole sector could become artificially inflated and collapse.

Cisco after 2000

Collapse:

In March 2000, the Cisco stock reached its peak at $80.06 and Cisco was at this point the most valuable company on the planet, by market capitalization. When the first signs of a declining tech stock market started to appear on the industry horizon, Cisco kept up their positive thinking. Demand for their routers and switches started to decrease, because the customer's ability to buy network devices declined. From there own the stock dropped at a rapid rate and left investors with some of the biggest losses in history.

On March 27th in 2000 Cisco stock was at its highest with a share value of $80.06 at the end of the day. Within only about a year the stock dropped to it's lowest since the boom started. On October 8th 2002 the stock was worth $8.60.



START-UP	BOOM	COLLAPSE	RECOVERY?
-Start Up -Forming Company structure	-30%,45% increase in Cisco stock prices	-From 70% growth to -30% in 45 days	-Building up stock -High future expectations

Cisco’s development

Building inventory the way Cisco did in 2000 was considered to be madness by many financial analysts. Cisco started increasing inventory in order to better meet the customer demand. At one point the company had $1bn worth of hardware sitting in warehouses. Cisco had the best customer satisfaction in 2000, with 4.4 on a 5 point scale. This was the best result they have had so far. Delivery was the one issue that bothered the company all year and finally it could be solved.

What happened between mid-December and mid-January, no CEO could have foreseen. Chambers, the CEO frequently compared what happened to a 100-year flood. He used to think Cisco's flood would come when it suffered maybe a 5 per cent drop in sales. "Well, we did minus 30. It's like having sandbags in your basement to handle floods around your house and it flows right over your house," he says. The great lesson for everyone, he goes on, is that slowdowns like these come on far more quickly than anyone thought possible in the new, connected economy. "I never modeled going from 70 per cent growth (where Cisco stood in November) to minus 30 per cent growth in 45 days”.

The peaks in this new economy seem to be much higher than people ever realized and the valleys seem to be much lower, and they occur much quicker and closer together.

Cisco did act quickly when the flood hit. Mr. Chambers says about 15 per cent of the company's business suddenly vanished, probably for good. That was the dotcom’s and alternative telecommunications service providers, all suddenly cut off from their capital sources as investors tired of putting money in new companies that were big on hi-tech thrill and small on earnings. Most importantly, the company took all of its medicine at once, with the huge inventory write-down and workforce contraction. Cisco never hesitated to take actions.

Nothing suggested that Cisco plans to change course dramatically. Chambers will, for example, resume his strategy of growing and innovating through acquisition. Cisco swallowed more than 70 companies in its quest for domination. It may be that the company's stock went down disastrously - by about 70 per cent from its 52-week high - but so did everyone else's.

Cisco made mistakes in depending too heavily on sales to the upstart telecoms providers. They even loaned cash to some to help them buy Cisco equipment on the assumption they would be money-spinning customers for the long term. Instead, they went belly up.

During this downturn the company also had to let go one forth of their employees. On the side the employees that stayed with the company lost a big amount of their invested money. Out of all the employees who were sacked, 95 per cent were supportive.

Will Cisco get back to its 30 to 50 per cent rates of growth? Cisco definitely believes in it. If it isn't them, it will be someone else in the industry. Even conservative people think that the industry will grow 15 to 20 per cent a year again. It is an industry most people love to be in. The mantra for Cisco is to be number one or number two in all of the markets in which it competes.

Questions:

1. Evaluate the Strength and Weaknesses of the financial and economic position of Cisco.

2. Imagine you are in 2000. By only analyzing the company's financial performance would you have kept your shares of Cisco? Now also consider the historical evolution in the share price since then. Would this change your answer?

3. Imagine you are in 2001. By only analyzing the company's financial performance would you invest in Cisco? Now also consider the historical evolution in the share price since then. Would this change your answer?

4. Considering the case of Cisco, do you think financial analysis alone is sufficient decision support for investing in an industry as fast changing as this?

Appendix 1

Balance Sheet (in million $)

Company	Cisco				Nortel[2]
Years	**2000**	**2001**	**2002**	**2003**	**2003**
ASSETS					
Cash and cash equivalents	$4,234	$4,873	$9,484	$3,925	$3,994
Short-term investments	1,291	2,034	3,172	4,560	63
Accounts receivable	2,299	1,466	1,105	1,351	2,367
Inventories, net	1,232	1,684	880	873	928
Deferred tax assets	1,091	1,809	2,030	1,975	443
Lease receivables, net	588	405	239	163	0
Prepaid expenses and other current assets	375	564	523	568	355
Total current assets	11,110	12,835	17,433	13,415	8,150
Investments	14,974	11,610	8,800	12,167	186
Property and equipment, net	1,426	2,591	4,102	3,721	1,472
Goodwill and purchased intangible assets	4,087	4,659	4,362	4,599	2,253
Lease receivables, net	527	253	39	60	3,374
Other assets	746	3,290	3,059	3,145	534
Total fixed assets	21,760	22,403	20,362	23,692	7,819
TOTAL ASSETS	32,870	35,238	37,795	37,107	15,969
LIABILITIES AND SHAREHOLDER'S EQUITY					
Accounts payable	739	644	470	594	1,655
Income taxes payable	233	241	579	739	0
Accrued compensation	1,317	1,058	1,365	1,470	805
Deferred revenue/Current portion of LT debt	1,386	3,214	3,143	3,034	112
Other accrued liabilities	1,521	2,553	2,496	2,162	2,342
Restructuring liabilities	0	386	322	295	214
Total current liabilities	5,196	8,096	8,375	8,294	5,128
Deferred revenue/LT debt	0	0	749	774	3,755
Deferred tax liabilities	1,132	0	0	0	208
Minority interest	45	22	15	10	615
Other liabilities	0	0	0	0	2,484
Share capital	14,609	20,051	20,950	21,116	37,313
Retained earnings	8,358	7,344	7,733	6,559	(32,507)
Accumulated other comprehensive income (loss)	3,530	(275)	(27)	354	(1,027)
Total shareholder's equity	26,497	27,120	28,656	28,029	3,779
TOTAL LIABILITIES AND EQUITY	32,870	35,238	37,795	37,107	15,969

[2] The financial results released by Nortel Networks Corporation on January 29th 2004 are unaudited and subject to change

Appendix 2:

Profit & Loss Account (in million $)

Company	Cisco				Nortel
Year	**2000**	**2001**	**2002**	**2003**	**2003**
Net Sales	$18,928	$22,293	$18,915	$18,878	$9,807
Cost of Sales	6,746	11,221	6,902	5,645	5,193
GROSS MARGIN	12,182	11,072	12,013	13,233	4,614
Operating expenses:					
R&D	4,077	4,777	3,513	3,139	1,993
Sales and marketing	3,946	5,296	4,264	4,116	1,895
General and administrative	633	778	618	702	0
Restructuring costs and other special charges	0	1,170	0	0	225
Amortization of goodwill and intangible assets	291	1,055	699	394	98
Total operating expenses	8,947	13,076	9,094	8,351	4,211
OPERATING INCOME (LOSS)	3,235	(2,004)	2,919	4,882	403
Interest and other income, net	1,108	1,130	(209)	131	38
INCOME (loss) BEFORE PROVISION FOR TAXES	4,343	(874)	2,710	5,013	441
Net earnings from discontinued operations	0	0	0	0	250
Provision for income taxes (benefits)	1,675	140	817	1,435	(41)
NET INCOME (loss)	$2,668	($1,014)	$1,893	$3,578	$732

Appendix 3:

Ratio Analysis

Company		Cisco			Nortel
Year	2000	2001	2002	2003	2003
Liquidity Ratios					
Liquidity (CA/CL)	2.14	1.59	2.08	1.62	1.59
Acid test (Cash + Receivables/CL)	1.26	0.78	1.26	0.64	1.24
Cash Ratio (Cash/CL)	0.81	0.60	1.13	0.47	0.78
Debt Ratios					
Debt Quality (CL/Debt)	0.82	1.00	0.92	0.91	0.42
Debt Quantity (Debt/Debt+Equity)	0.19	0.23	0.24	0.24	0.76
Debt cost (Interest expense/Debt)	-0.17	-0.14	0.02	-0.01	0.02
Debt/Equity	0.24	0.30	0.32	0.32	3.23
Asset Management					
Asset turnover (Sales/Assets)	0.58	0.63	0.50	0.51	0.61
FA turnover (Sales/FA)	0.87	1.00	0.93	0.80	1.25
CA turnover (Sales/CA)	1.70	1.74	1.09	1.41	1.20
Terms (days)					
Days Payable	40	21	25	38	116
Days Receivable	44	24	21	26	88
Expenses					
Cost of Sales/ Sales	36%	50%	36%	30%	53%
Marketing&Tech/Sales	42%	45%	41%	38%	40%
Total Expenses/Sales	47%	59%	48%	44%	43%
Margin and Profitability					
ROS Return on Sales (Profit/Sales)	0.14	-0.05	0.10	0.19	0.07
ROE Return on Equity (Profit/Equity)	0.10	-0.04	0.07	0.13	0.19
ROI Return on investment (EBIT/Assets)	0.10	-0.06	0.08	0.13	0.03
EPS Earnings per share - basic (Profits/no shares)	$0.39	-$0.14	$0.26	$0.50	$0.17
EPS Earnings per share - diluted (Profits/no shares)	$0.36	-$0.14	$0.25	$0.50	$0.17
Annual Evolution					
Sales evolution	55.5%	17.8%	-15.2%	-0.2%	-7.2%
Profit evolution	31.9%	-138.0%	-286.7%	89.0%	122.4%
Debt evolution	106.8%	27.4%	12.4%	-0.6%	-9.4%
Asset evolution	120.7%	7.2%	7.3%	-1.8%	-0.9%
Stockmarket Ratios					
Market capitalization	$437,085	$146,079	$88,342	$136,425	$28,271
Share price (after releasing full year results)	$63.19	$20.30	$12.10	$19.15	$6.52
P/E ratio	164	-144	47	38	39

Teaching Note[3]

1. **Evaluate the Strength and Weaknesses of the financial and economic position of Cisco.**

FINANCIAL ANALYSIS

We will first identify the financial situation by looking at the factors most commonly related to distinguishing a successful from an unsuccessful company. We will go through each of them in turn.

Liquidity:

	2000	2001	2002	2003
Current Ratio	2,14	1,59	2,08	1,62
Quick Ratio	1,26	0,78	1,26	0,64

Liquidity analysis: The company has enough cash available. By looking at the ratios we can't however clearly find a trend in the Current ratio. In the year 2000 it had a value of 1,62 coming down from 2,08 the previous year. It has been inconsistent over the last four years.

The quick ratio shows the same inconsistent trend, fluctuating around the ideal value of 1. In the final year it was at 0,64, the lowest value. Therefore, in 2003 they have shown to have less cash liquidity than the previous years. But as it ideally is around one, this is not a worrying sign.

We could also point out from the balance sheet that they have excess cash and made an extensive short term financial investment of $ 3172 mill in 2002. Even the previous years they have shown to have large S.T. investments. And it is likely to continue at the same pace for this year, as we have estimated. This suggests that they have excess cash, which is generally a good sign for a company.

Year 2003	
Actual Working Capital	$ 5121 mill
Working Capital Needs	$ 561 mill
Working Capital Surplus	$ 4560 mill

[3]Mireia Manent, Vivian Strosek, Sissel Tangen, Valentin Tataru and Max Wuhrer (MBA 2005), with the collaboration of Professor Oriol Amat, Department of Economics and Business, Universitat Pompeu Fabra (Barcelona), 2004 prepared this case as the basis for class discussion rather than to illustrate either effective on ineffective handling of an administrative situation.

For their working capital management we need to calculate the Actual Working Capital and the Required Working Capital. The Actual Working Capital is:

Current Assets – Current liabilities = 13415 – 8294 million €

Working Capital Needs = operating current assets - operating current liabilities
= 8855 - 8294 million €

Looking at the two, this is a good sign. The Actual working Capital is far higher than what they need by the amount of the short term financial investments ($4560 mill) since they don't have bank loans. This might be due to the excess of cash they have available. We would recommend them to use this excess of cash to reduce their short term investments in order to offset part of debt.

	2000	2001	2002	2003
Days payable	40	21	25	38
Days receivable	44	24	21	26
Float period	- 4	- 3	- 4	- 12

Customers at Cisco are usually paying later than Cisco has to pay its suppliers. This number has actually gone up for 2003 from 4 to 12 days. So this is generally not favourable to the company. Again when looking at the float period they will not run into problems with their liquidity, since the current assets are higher than their current liabilities. But as they have so much working capital this shouldn't be a problem for the company.
So overall Cisco has good liquidity, which means they are not likely to run into problems with its payments, but some of the cash on hand could be used to reduce debt.

Debt:

	2000	2001	2002	2003
Debt quality	0,82	1,00	0,92	0,91
Debt quantity	0,19	0,23	0,24	0,24
Debt cost	-0,17	-0,14	0,02	-0,01
Debt/Equity	0,24	0,30	0,32	0,32

Coming on to debt we will look at the quantity ratio which should ideally be between 0,4 and 0,5. In our case it is at 0,24. This means they have 24 percent debt. The ratio has actually been pretty constant over the years.
The quality (i.e. the Short Term Debt / Total Debt) is at 0,91 in 2003 which is quite a worrying sign. Also we might point out that it has been very stable over the last four years.
The debt cost has actually been reduced over in the last 2 years and a good sign if the trend continues.
Debt/ Equity is also quite strange at 0,32. This ratio again has been incredibly stable over the last 4 years and generally gives a good sign. In fact, it was exactly the same the year before.

Assets Management:

	2000	2001	2002	2003
Asset turnover	0,58	0,63	0,50	0,51
FA turnover	0,87	1,00	0,93	0,80
CA turnover	1,70	1,74	1,09	1,41

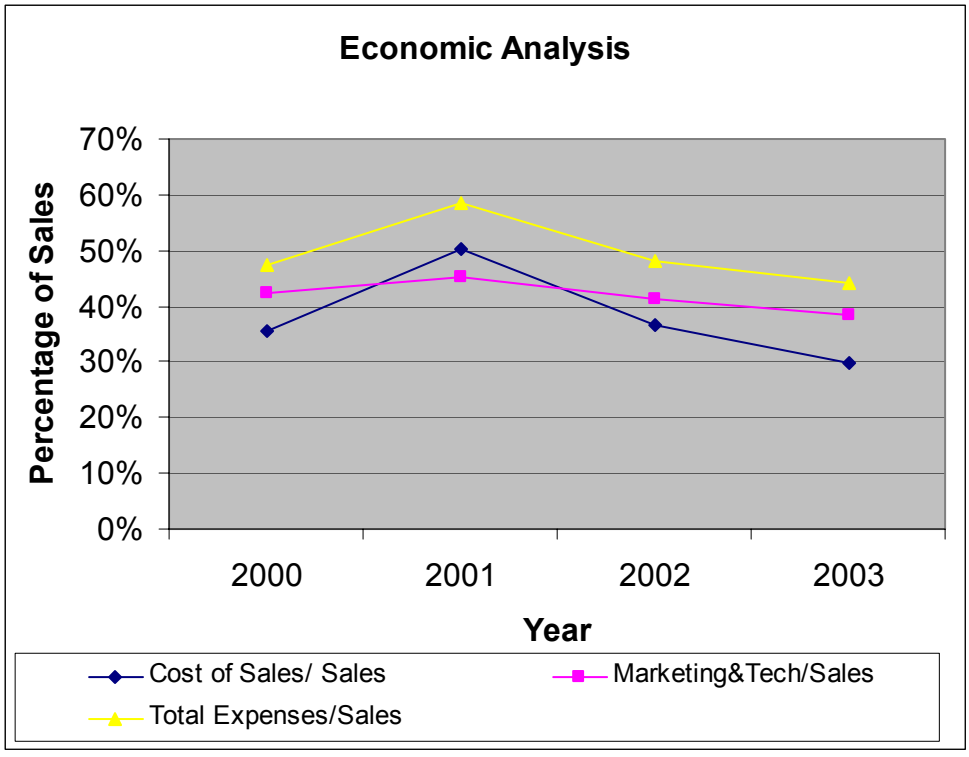
The assets management of the company can be taken from the table above. The Asset Turnover (Sales / Assets) is at 0,51 in 2003. This might seem like a quite low value but again it has been extraordinarily stable over the past years.
The Fixed Asset turnover is at 0,80 in 2003 and was about the same in 2002, only in 2001 it was slightly higher at 0,63. Again a rather solid sign as the figures have not moved much.
The Current Asset turnover is at 1,41 in 2003. It is increasing from the previous year but is still lower than it was in 2001 and 2000. We can still regard it as a good sign. This means they were able to manage their inventories a little less well in the previous years but are recovering.
As a conclusion for the financial Analysis we can say that Liquidity gives us promising numbers, the same goes for the debt ratios. Asset management also pretty stable but shows signs of recent downturns and evolvements. The striking feature is the stableness of all the values over the years!

ECONOMIC ANALYSIS

Expenses:

The Costs of Sales is present in a table for the past 4 years:

	2000	2001	2002	2003
Cost of sales/Sales	36%	50%	36%	30%
Mrktg. &Tech./Sales	42%	45%	41%	38%
Total expenses/Sales	47%	59%	48%	44%



From the first ratio (Cost of Sales/Sales) we can actually see that it has been steadily decreasing since 2001 from 50% to 30%. This leads us to the conclusion of higher gross profits. The company can slowly reduce their costs in relation to the Sales.

Marketing and Technology, which might make the biggest part of costs and therefore influences the cost of Sales the most has obviously the same pattern as the Cost of Sales.

Again in the total expenses we see the same increase in the year ’00 and ’01 as we did for the Fixed Asset Turnover. Since 2001 it has however again come down like previously looked at percentages. In 2003 it was at 44 % which is not bad.

In 2001 their costs of sales were exceptionally high, higher than in any other year in question.

Overall we see that the cost of sales is decreasing since 2001 and this is definitely a positive trend to observe.

Profitability:

	2000	2001	2002	2003
ROS	0,14	-0,05	0,10	0,19
ROE	0,10	-0,04	0,07	0,13
ROI	0,10	-0,06	0,08	0,13
EPS basic	$0,39	-$0,14	$0,26	$0,50
EPS diluted	$0,36	-$0,14	$0,26	$0,50

The ROS has changed from negative in 2001 to growing positive figures of 10 and 19% in 2002 and 2003 respectively. For ROI the same applies, they have been steadily going up since 2001. The only striking feature is that they were all negative in 2001 before being positive in 2000. As we have see they have quickly recovered.
The Earning per shares are showing the same pattern and are currently at $ 0,50, showing an upward trend for the future.
Overall, with the exception of 2001, these ratios again are very positive.

Evolution:

	2000	2001	2002	2003
Sales evolution	55,5%	17,8%	-15,2%	-0,2%
Profit evolution	31,9%	-138,0%	-286,7%	89,0%
Debt evolution	106,8%	27,4%	12,4%	-0,6%
Asset evolution	120,7%	7,2%	7,3%	-1,8%
Sales evolution	55,5%	17,8%	-15,2%	-0,2%

In the table below we would like to show the breakdown of the Return on Equity ratio:

Profitability	*turnover*		*margin*		*gearing*			*Fiscal effect*	
ROE	**Sales / Total Assets**	*	**EBIT / Sales**	*	**Assets / Equity**	*	**EBT / EBIT**	*	**Net profit / EBT**	
2003	18.878 / 37.107	*	4.882 / 18.878	*	37.107 / 28.029	*	5.013 / 4.882	*	3.578 / 5.013	
	0,51	*	0,26	*	1,32	*	1,03	*	0,71	**13%**
2002	18.915 / 37.795	*	2.919 / 18.915	*	37.795 / 28.656	*	2.710 / 2.919	*	1.893 / 2.710	
	0,50	*	0,15	*	1,32	*	0,93	*	0,70	**7%**
2001	22.293 / 35.238	*	-2.004 / 22.293	*	35.238 / 27.120	*	-874 / -2.004	*	-1.014 / -874	
	0,63	*	-0,09	*	1,30	*	0,44	*	1,16	**-4%**
2000	18.928 / 32.870	*	3.235 / 18.928	*	32.870 / 26.497	*	4.343 / 3.235	*	2.668 / 4.343	
	0,58	*	0,17	*	1,24	*	1,34	*	0,61	**10%**

Return on Equity:

Doing the Return on Equity (ROE) breakdown, it might help to establish the underlying strength or weaknesses of this absolute number:

First of all, looking at the overall ROE number we see the high negative number in 2001 and positive numbers in 2000, 2002 and 2003.

The turnover figures are increasing in the period and are relatively high in general. This might be due to relatively low asset numbers in connection with sales.

Margins are positive except for 2001. When doing this breakdown we also see that EBT is positive again. The gearing shows that the level of debt is profitable.

So, overall the ROE has a positive evolution over the last 2 years, despite the fact that the number for 2001 was negative

Economic Value Added:

CISCO

2003		Weight	cost%
Equity	28.029	0,76	10%
Debt	9.068	0,24	-1,0%
WACC	**7,31%**		
Net Assets	**28.813**		
Assets − current liabilities			
NOPAT	**3.447**		
EBIT – Taxes			
EVA	**1.340**		
NOPAT − (Net Assets * WACC)			

CISCO

2002		Weight	cost%
Equity	28.656	0,76	10%
Debt	9.125	0,24	2,3%
WACC	**8,14%**		
Net Assets	**29.420**		
Assets − current liabilities			
NOPAT	**2.102**		
EBIT - Taxes			
EVA	**-292**		
NOPAT − (Net Assets * WACC)			

CISCO

2001		Weight	cost%
Equity	27.120	0,77	10%
Debt	8.118	0,23	-13,9%
WACC	**4,49%**		
Net Assets	**27.142**		
Assets − current liabilities			
NOPAT	**-2.144**		
EBIT – Taxes			
EVA	**-3.363**		
NOPAT − (Net Assets * WACC)			

CISCO

2000		Weight	cost%
Equity	26.497	0,81	10%
Debt	6.373	0,19	-17,4%
WACC	**4,69%**		
Net Assets	**27.674**		
Assets − current liabilities			
NOPAT	**1.560**		
EBIT - Taxes			
EVA	**262**		
NOPAT − (Net Assets * WACC)			

As expected we have a positive result of 1340 in 2003 because the NOPAT is high. WACC is relatively low because of positive financial income. This means they have a negative cost of debt of -1%.

For 2002 the EVA is slightly negative, partly due to a lower NOPAT compared to 2003 and higher WACC caused by higher cost of debt (2,3%).

For 2001 the EVA is strongly negative, due to losses before Income and Taxes (EBIT). The WACC is very low but it can't offset the negative NOPAT.

For 2000 EVA is slightly positive, due to a low WACC and very favorable cost of debt and strong EBIT in 2000.

As a summary of the profitability analysis we can say that except from a few points it looks rather positive.

2. Imagine you are in 2000. By only analyzing the company's financial performance would you have kept your shares of Cisco? Now also consider the historical evolution in the share price since then. Would this change your answer?

In this instance we have to look at the companies' profitability, their self financing ability, dividends they have paid and their growth in the year 2000.

Profitability:

Overall, the financial ratios for Cisco in 2000 look very promising. Shareholders earn a reasonable return of 10% on their investment (ROE: 10%). Return on sales of 14% and return on assets of 10% are quite high for companies operating in this industry. In 2000, Cisco had a positive EVA as shown before. Net profits have increased by 31.9% from 1999. All these ratios point to a strong performing and fast growing company.

Self financing:

Cisco is very much a self financed business. In 2000, 81% of their assets were financed by equity. They don't hold any bank debts, short-term or long-term. Their self-financing ratio is zero (dividends over cash flow) because of zero dividend pay out.

Dividends:

Cisco did not pay out dividends in 2000, and it retained the entire $2,668 million net profit to invest it in future growth. From a tax perspective, investors are happier with increases in the value of their share, which are not taxed. Dividends, on the other hand are taxed.

Typology of Growth:

Cisco sales grew by 55.5% from 1999 and were growing at a fast pace for the last 10 years. Sales grew in real terms and were well over the inflation rate. Debts were very low in quantity and quality and come at very low cost. Gearing is positive and the company is mostly self financing. Return on equity and return on assets are both high. All these are typical for **balanced growth** probably the best type of corporate growth.

CONCLUSION:

By looking at the ratios for Cisco in 2000, we would choose to invest, however, the subsequent evolution of the share price shows this would have been a disastrous decision.

Stock market ratios however, indicate that Cisco was a very expensive stock in 2000, trading at a P/E ratio of 164 at the end of the fiscal year, and as high as 213 during the year.

3. Imagine you are in 2001. By only analyzing the company's financial performance would you invest in Cisco? Now also consider the historical evolution in the share price since then. Would this change your answer?

In this instance we have to look at the companies' profitability, their self financing ability, dividends they have paid and their growth in the year 2000.

Profitability:

Overall, the financial ratios for Cisco in 2001 look disastrous. Shareholders earn a negative return of – 4% on their investment (ROE: – 4%). Return on sales of – 5% and return on assets of – 6% are very low even for companies operating in this industry. In 2001, Cisco had a strongly negative EVA as shown before. Net profits have decreased by 138% from 2000. All these ratios point to a badly performing and fast collapsing company.

Self financing:

Cisco is very much a self financed business. In 2001, 77% of their assets were financed by equity. They don't hold any bank debts, short-term or long-term and virtually all their liabilities are short-term. Their self-financing ratio is zero (dividends over cash flow) because of zero dividend pay out.

Dividends:

Cisco did not pay out dividends in 2001, as it had net losses for the year of $ 1,014 million.

Typology of Growth:

Although one would have to be very generous in labelling Cisco's evolution in 2001 as growth, it is still worthwhile to point out that sales have increased by 17.8% from the previous year. Debts maintained a normal structure (at least for this industry). Return on equity and assets were negative. This could be labelled as **weak growth**.

CONCLUSION:

By looking at the ratios for Cisco in 2001, we would choose not to invest however, the subsequent evolution of the share price shows that this would have been a very good time to invest.

Stock market ratios however, indicate that Cisco was a reasonably priced stock in 2001. The P/E ratio was as low as 18 in 2003.

4. Considering the case of Cisco, do you think financial analysis alone is sufficient decision support for investing in an industry which is as fast changing as this?

As this case has tried to prove, relying on ratio analysis alone is not enough for making sound investing decisions, and there are several reasons for this.

Firstly, ratios are backward looking. They reflect the performance of the past and use it as a proxy to forecast the future. In doing this, ratio analysis assumes that company performance is fairly stable over time. This assumption might not be so seriously flawed in more traditional industries, and for companies with steady evolutions and hundreds of years of tradition. However, in a new and fast changing industry, the past is not a good measure to predict the future accurately.

Secondly, the mistakes of the past often reflect on the results of the near future. As it was the case with Cisco, poor forecasting and decision making in 2000 has impacted negatively their financial results in the next year while still allowing for good results in 2000.

Our conclusion is that in a volatile industry investors need to rely more on future predictions and expectations than past performance.