

A Study on Financial Distress of Firms

- The Case of Midopa Department Store -

By

Young-Chang Son

A Thesis

Submitted to

School of Public Policy and Management, KDI

In partial fulfillment of the requirements

For the degree of

MASTER OF BUSINESS ADMINISTRATION

ABSTRACT

This thesis analyzes financial distress of firms from the financial point of view through a case study of Midopa Department Store which went bankrupt in 1998. Financial distress of firms throughout the world is a frequent occurrence with important implications to many stakeholders. In Korea since the IMF crisis, people have experienced great hardship due to financial distress of firms. Financially distressed firms can either be restructured and successfully emerge as continuing entities or be liquidated for the benefit of creditors before their asset value is dissipated. The treatment of financially distressed firms, however, does not entirely depend on financial analysis. Political consideration, long-term economic plan, and the social atmosphere including reaction of labor union are implicitly or explicitly involved in the process. This thesis examines the implications of financial distress by analyzing the causes and possible restructuring options of Midopa Department Store.

Table of Contents

Chapter I . Introduction	1
Chapter II . Literature Review on Financial Distress	3
1. Definition of Financial Distress	3
2. Causes of Financial Distress	5
3. Treatment of Financially Distressed Firm	7
4. Forecasting of Financial Distress through Z-Score Model	9
Chapter III. Analysis of Financial Distress of Midopa	12
1. Overview of Midopa	12
2. Causes and Occurrence of Financial Distress	15
3. Forecasting of Financial Distress in Advance	21
Chapter IV. Valuation and Restructuring of Midopa	24
1. Forecasting Liquidation Value	24
2. Forecasting of Reorganization Value as Going Concern	29
3. Financial Restructuring	47
V. Conclusion	55

I. Introduction

1. Background and Purpose of the Thesis

Since the IMF crisis in 1997, many Korean firms including the chaebols experienced significant hardship due to financial distress. Although there are some companies who graduated from financial distress through their own restructuring program, still many companies are undergoing financial treatment and some had to close down their business.

Many stakeholders such as investors, creditors, suppliers, buyers and employees have suffered from financial distress. Therefore, preventing a firm from financial distress in advance is quite important. Also, the choice of optimal treatment of a financially distressed firm is crucial for the purpose of minimizing the costs and difficulties.

Through the case study of Midopa, an insolvent company in 1998, this thesis will look for the causes of financial distress and calculate its pro-forma liquidation value and reorganization value as a going concern in order to find out the optimal treatment. According to the valuation result, it was suggested whether the firm should be liquidated or continue its operations.

The valuation and restructuring suggestion of this thesis may be different from Midopa's real situation due to limited access of materials. Financial consideration is just one factor when an insolvent firm's optimal treatment is chosen. In some cases, other factors like political reasons, regional characteristics, reaction of labor union and so on should also be considered.

2. Organization and Methodology

Chapter II discusses the basic concept and theory of financial distress by describing the definition, general causes, treatment of financially distressed firms and forecasting model for financial distress.

Chapter III examines what caused the financial distress of Midopa Department Store by applying the basic concept and theory from Chapter II.

Chapter IV calculates the value of Midopa Department Store in two ways - "Liquidation Value" and "Reorganization Value as Going Concern" – and provides a restructuring scenario.

Materials concerning Midopa Department Store were obtained through publicly available financial data and press reports.

Discounted Cash Flow (DCF), a valuation tool, is employed to evaluate the reorganization value of the firm. The DCF method adopted in this thesis follows the structure of financial modeling proposed by Simon Benninga. (Simon Benninga, 1997)

II. Literature Review of Financial Distress

1. Definition of Financial Distress

A firm is in financial distress when it is having significant trouble paying its debts as they come due. A variety of terms are used to describe a financially distressed firm. Three of the more widely used terms are bankrupt, in default, and insolvent. They have different shades of meaning.

A firm is bankrupt when it has filed a petition for relief from its creditors under the bankruptcy code, or when it has consented to a filing by its creditors. The filing signifies either that the firm has not paid debts that have come due or that it will become unable to pay them within the foreseeable future.

A firm is in default when it violates one of the terms of loan agreement or bond indenture. It is useful to distinguish between technical defaults and payment defaults. A technical default occurs when the debtor violates a loan covenant. Technical defaults rarely lead to bankruptcy. They are usually cured through negotiation with creditors. A payment default occurs when the firm misses a scheduled interest payment or principal payment. If there is a grace period, the default actually occurs after it has expired. A payment default is generally more serious than a technical default. However, even when a firm is in default, it is not necessarily bankrupt. It can continue to operate while it tries to negotiate an out-of court restructuring with its creditors.

A firm is insolvent when it is unable to pay its debts. It is useful to distinguish between technical insolvency and bankruptcy insolvency. Technical insolvency occurs because of a lack of cash. Bankruptcy insolvency occurs when the firm's total liabilities exceed

the fair market value of its total assets. The firm's true net worth is negative, while means that the value of its assets is insufficient to pay its debts. Technical insolvency may be a temporary condition. Bankruptcy insolvency usually indicates a more serious distressed condition. (Emery & Finnerty, 1997)

Meanwhile, Ross, Westfield & Jaffe classified insolvency into "Flow based insolvency" and "Stock based insolvency" as follows.

Stock Based Insolvency : It occurs when the value of the assets of firm is less than value of the debt, which implies negative equity.

Flow Based Insolvency : It occurs when a firm's cash flows are insufficient to cover contractually required payments.

So, "Technical insolvency" has the same meaning with a "Flow based insolvency" and "Bankruptcy insolvency" is equal to "Stock based insolvency".

2. Causes of Financial Distress

Financial distress results from deterioration of a firm's financial performance and can have many causes. Poor management, unwise expansion, intense competition, too much debt, massive litigation, and unfavorable contracts are just a few of the possible causes.

(Emery & Finnerty, 1997)

Also, it can be occurred by external factors such as business cycle, general crisis, and credit crunch. When a firm faces financial distress resulting from external factors, it is a matter of survival for every firm. Here, some of the controllable factors are described.

2.1 Poor Management

Surprisingly, this is the leading cause of corporate financial distress. According to Dun & Bradstreet survey, 94% of business failure was caused by lack of management experience, unbalanced experience, or outright managerial incompetence.

2.2 Unwise Expansion

This is serious when a company just pursues expansion for economies of scales, forecasting the industry with too optimistic view.

External environment for a company's business can be unexpectedly unfavorable. Examples are collapse of market condition and occurrence of substitutes.

2.3 Intense Competition

Intense competition can lead companies to go bankrupt because of the price competition through marginal cost cutting.

2.4 Too Much Debt

Too heavy burden of interest payment followed by accumulated debts cause financial distress of companies as well as high borrowing cost. When bankruptcy cost is bigger than tax benefit, borrowing cost increases.

If interest coverage ratio is too low due to too much debt, firms cannot cover the interest payment only with EBIT (Earning Before Interest and Tax).

2.5 Massive Litigation

It is natural for firms to meet the conflict of interest with competitors, suppliers, buyers, even workers or public regarding trading, technology, working condition, and environment.

Such kind of conflict results in accrual liabilities, which may give companies a threat of insolvency.

2.6 Others

Other factors such as unfavorable contracts, neglect, disaster, badly devised strategy and fraud would be also causes of financial distress.

3. Treatment on Financially Distressed Firm

Firms that cannot or choose not to make contractually required payments to creditors have two basic options : liquidation or reorganization.

Liquidation means termination of the firm as a going concern; it involves selling the assets of the firm for salvage value. The proceeds, net of transaction costs, are distributed to creditors in order of established priority.

Reorganization is the option of keeping the firm a going concern. It sometimes involves issuing new securities to replace old securities.

(Ross, Westfield & Jaffe, 1998)

Liquidation and formal reorganization may be done by bankruptcy. But, reorganization may be conducted outside bankruptcy, because bankruptcy is time-consuming and expensive. For these reasons, financially distressed firms usually try to reorganize outside bankruptcy before filing for bankruptcy.

3.1 Reorganization outside Bankruptcy or in Bankruptcy

In any case of either outside bankruptcy or in bankruptcy, a firm can restructure its liabilities in several ways. It can exchange new securities for existing securities, solicit security holder's consent to modify the terms of existing securities, or repurchase existing securities for cash. Each technique requires the firm to persuade its security holders to alter the terms of their investment in the firm. The more complex the debtor's structure is, the less likely out-of-court restructuring is to work.

In Korea, “Composition” and “Workout” became the tools for reorganization outside bankruptcy since 1997. As a tool of reorganization in bankruptcy, court receivership has been established and applied for financially distressed firm.

3.2 Liquidation in Bankruptcy

When the prospects for reorganizing a debtor are so poor that it would be unreasonable to invest further time and financial resources in the effort, the only alternative is liquidation. The firm or its creditors files a petition under bankruptcy law.

Liquidation is preferable to reorganization when selling the debtor's assets in liquidation would produce value that exceeds the debtor's reorganization value.

Usually, the key variables are time and risk. For instance, the financial advisors of the debtor may believe that the realizable economic value of the debtor will eventually exceed the liquidation value. But suppose the value to be realized and the time it would take are highly uncertain. In that case, the expected present value of the debtor's assets as a going concern might be less than their currently realizable liquidation values.

Liquidation value does not necessarily mean the amount of cash to the debtor's estate would realize through a forced sale of the debtor's assets.

Rather, it refers to the amount that could be realized through an orderly sale. Liquidation value is usually lower than reorganization value. For example, inventories of items that are protected by manufacturer warranties are heavily discounted in liquidation. This discount is part of the substantial indirect costs of financial distress.

Liquidation value must generally be estimated asset class by asset class.

The aggregate liquidation value of all the debtor's assets, less the costs of the liquidation process, is then compared to the reorganization values.

Reorganization value can be estimated by applying the valuation techniques.

(D.R Emery & J.D Finnerty, 1997)

4. Forecasting of Financial Distress in Advance through Z-Score Model

As a firm's financial condition worsens, it begins to show signs of financial distress. Losses begin to occur. Interest coverage worsens. The firm's operations start to absorb more cash than they generate. Net working capital may turn negative.

The deterioration reveals itself in a worsening of the firm's key financial ratios.

Thus changes in a firm's financial ratios can be used to predict the onset of financial distress.

Almost without exception, early studies that used financial ratios to predict corporate bankruptcy tried to a single financial ratio that worked best.

But it seems unlikely that any single financial ratio will work for all industries and all situations.

Multiple discriminant analysis is a more appropriate technique for predicting corporate bankruptcy, because it uses more than one variable. (Altman Edward, 1993)

One of the most famous multiple discriminant analysis is Altman's Z-score model.

4.1 Z-score Formula

Edward Altman developed a Z-score model based on five financial ratios. The formula is as follows.

$$Z = 0.012 X1 + 0.014 X2 + 0.033 X3 + 0.006 X4 + 0.999 X5$$

Where, X1 = net working capital / total assets

X2 = retained earnings / total assets

X3 = EBIT / total assets

$X4 = \text{market value of equity} / \text{book value of total liabilities}$

$X5 = \text{sales} / \text{total assets}$

(D.R Emery & J.D Finnerty, 1997)

X1 can be said to represent a level of firm's liquidity.

Stability of a firm can be measured by X2, because retained earnings shows a firm's historical profitability and current financial leverage level.

X3 is a variable in connection with current profitability of a firm.

Through X4, a firm's possibility of growth can be implied, because stock price reflects a firm's future profitability.

X5 can explain a firm's effective activities through turnover ratio.

Therefore, Z-score model considers liquidity, stability, profitability, growth rate, and turnover ratios, which are the key factors for corporate analysis.

4.2 Prediction of Z-score

The discriminant function transforms the individual financial ratios into single discriminant score, Z-score. The Z-score is then used to classify the firm as "bankrupt" or "non-bankrupt". In this equation, the figures like 0.012, 0.014 and so on are discriminant coefficients, or weights, and X1, X2 and so on are the financial ratios. The greater a firm's Z-score, the lower its risk of going bankrupt.

<Table 1 : Prediction of Altman' s original model>

Z-score	Prediction
$Z > 2.99$	Firm will not fail within 1 year
1.81 Z 2.99	Gray area within which it is difficult to discriminate effectively
$Z < 1.81$	Firm will fail within 1 year

(D.R Emery & J.D Finnerty, 1997)

Studies have found the Z-score model is not accurate when it is used to predict bankruptcy in more recent time period. The mix of variables and the coefficient values tend to change over time. There are two suggestions. Anyone who uses a Z-score model should reestimate the discriminant function regularly to ensure that it is up to date. Second, a Z-score model is likely to be most reliable when it is applied to firms within particular industry.

III. Analysis of Financial Distress of Midopa

1. Overview of Midopa Department store

1.1 Background Information

Midopa, with 44 years of history, was one of the pioneering department stores in Korea with Shinsegae. Since it opened in 1954, Midopa entered Daenong Group as a subsidiary company and it reopened under the form of direct management in 1973. Then, Midopa after acquiring Sidae department store in 1974 and Kagopa department store in 1978, it opened Chonyangri to complete preparing to become the leader in the retailing industry. After that, Midopa expanded its size through acquiring Midopa Construction Co. in 1985 and eventually became a major company in Daenong group through opening Sangye store.

Chairman Park, Young-man, who took his post in '89 followed by Park, Yong-hak, a founder, vociferously focused on expanding its size. As a result, Midopa became a big company with 8 subsidiary companies including advertising consulting company Metrocom, Midopa Tourist company, Jetline, Metro Product, etc.

Although the number of Midopa's stores increased after opening Chunchon branch in '96, it was short of capital mainly because of the increased capital demand from its subsidiaries and excessive cross payment guarantee for Daenong Corp., which was already financially in distress.

Having targeted this weak point, Sindongbang Group, collaborated with Sungwon Group, tried to acquire Midopa through hostile M&A at the early of 1998. Midopa, in order to prevent from being acquired, spent 120 billion won, and this caused a serious

lack in capital in other subsidiaries let alone Midopa itself like a backfire, which finally destroyed the entire Daenong Group.

Last May in 1998, Midopa had been initially blacklisted as "a company needed to be in the financial risk" with other subsidiaries like Daenong Corp., Daenong Heavy & Chemical, Metro product. Although Midopa survived even in the situation the other subsidiaries were determined court receivership or selling their major assets, it eventually got fallen down without overcoming sales decrease and the pressure from high interest rate since the IMF crisis.

The number of regular employees of this company is 1,800 and major trading companies are about 1,600 companies.

1.2 Brief History

1964	Established
1974	Merge with Sidae department store
1975	Initial Public Offering
1978	Acquisition of Kagopa department store
1979	Chongnyangri store open
1985	Merge with Daenong construction
1992	Sangye store open
1994	Equity participation (45%) in Nowon Cable Broadcasting
1996	Establishment of Chunchon Midopa & Midopa Food System
1997	Equity participation (93%) in Spametro
1998	Default in payment (3. 18) Petition for filing in court (5. 8) Decided an asset freezing (5. 19) Filing accepted by court (9. 11)
1999	Reorganization plan accepted (5. 17)

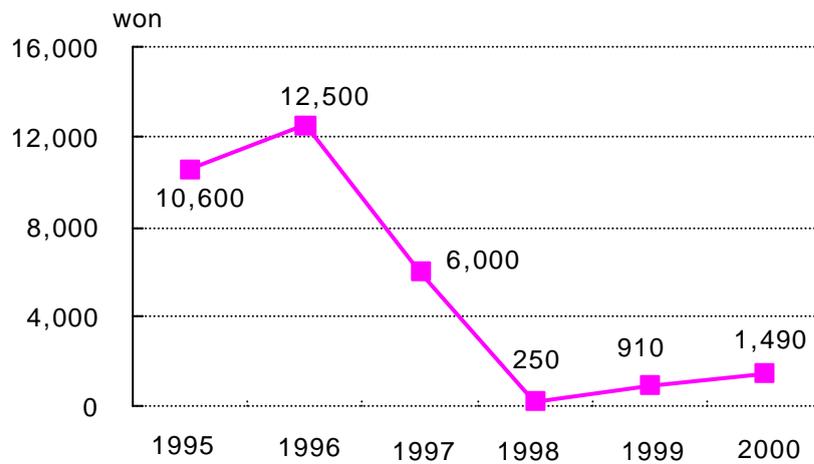
1.3 Stock Price Trend

From 1996, stock price has been sharply down, which implies that the market predicted the crisis of Midopa in advance.

Despite a negative equity in 1998, the stock price is not zero, which can be explained by investors' speculative expectation on the possibility of Midopa's revival.

After a court receivership was accepted in 1999, the stock price increased reflecting the possibility of successful reorganization.

<Chart 1 : Stock Price Trend of Midopa >



2. Causes and Occurrence of Financial Distress

2.1 Review of Financial Statement

2.1.1 Income Statement

Income Statement of Midopa from 1995 to 1999 shows that sales have declined since 1996. The sales revenue of 1999 is just a half volume compared with that of 1995. Because of decreased sales and increased SG&A, operating income has plummeted to a negative point for two years, 1997 and 1998. The amount of extraordinary loss, resulted from unusually increased provision for potential loan loss ('97: 5,215 '98: 117,798 million won) increased to 12,579 million won in 1998 from 681 million won in 1997. There was unusual other non-operating expense due to a loss through investment asset selling ('97: 3,800 '98: 71,506).

<Data 1 : Historical Income Statement>

historical

Income Statement

(unit : million won)

	1995	1996	1997	1998	1999
Revenue	548,480	640,322	569,515	359,774	278,776
- COGS	386,390	456,943	440,323	273,180	200,809
(Depreciation)	5,650	7,083	7,596	6,899	6,979
Gross profit	156,440	176,296	121,596	79,695	70,988
- SG&A	111,454	122,864	130,646	202,826	56,479
Operating Profit	44,986	53,432	(9,050)	(123,131)	14,509
+ Interest earning	13,187	11,620	16,793	30,681	1,217
+ Other non-operating income	2,262	3,676	10,494	27,855	4,179
- Interest expenses	49,814	61,137	76,339	104,684	37,417
- Amortization	1,491	1,459	1,377	2,562	1,404
- Other non-operating expenses	1,394	917	6,543	107,230	248,037
Ordinary Profit	7,736	5,215	(66,022)	(279,071)	(266,953)
+ Extraordinary income	4	265	255	511	50,013
- Extraordinary loss	30	59	681	12,579	1,483
Net income before tax	7,710	5,421	(66,448)	(291,139)	(218,423)
- Corporate tax	3,941	2,278			
Net income after tax	3,769	3,143	(66,448)	(291,139)	(218,423)

2.1.2 Balance Sheet

Midopa's asset has rapidly declined since 1997 mainly due to selling investment asset and reducing account receivables. Paid in Capital has increased through issuing new shares during 1997 & 1998. Shifting to the deficit, retained earning has continuously decreased since 1997 due to huge net loss. Negative equity from 1998 was caused by accumulated net loss.

<Data 2 : Historical Balance Sheet>

historical

Balance Sheet

(unit : million won)

	1995	1996	1997	1998	1999
<Current asset>	232,514	309,514	385,276	64,905	88,601
Cash equivalent	16,719	19,233	47,220	14,242	40,755
Account receivable	143,273	219,986	266,295	21,282	14,272
Inventory	60,981	55,526	56,108	26,369	28,559
Others	11,541	14,769	15,653	3,012	5,015
<Fixed asset>	358,779	436,956	582,904	724,616	487,355
Investment asset	106,464	157,957	230,714	274,711	45,095
Tangible asset	242,779	270,702	344,908	441,093	436,927
Intangible asset	9,536	8,297	7,282	8,812	5,333
Total asset	591,293	746,470	968,180	789,521	575,956
<Current liabilities>	248,111	335,682	466,328	629,202	141,126
Short-term debt	88,712	146,870	182,642	264,210	0
Account payable	92,474	84,847	83,068	93,881	98,754
Others	66,925	103,965	200,618	271,111	42,372
<Fixed liabilities>	251,902	321,034	361,180	190,157	688,715
Long-term debt	226,755	294,005	327,794	168,858	675,040
Others	25,147	27,029	33,386	21,299	13,675
Total liabilities	500,013	656,716	827,508	819,359	829,841
<Equity>	91,280	89,754	140,672	(29,838)	(253,885)
Paid-in-capital	51,972	51,972	75,150	93,740	93,740
Capital surplus	29,886	29,886	116,170	162,939	162,963
Retained earning	7,003	5,477	(61,816)	(286,517)	(507,841)
Capital adjustment	2,419	2,419	11,168	0	(2,747)
Total liabilities and equity	591,293	746,470	968,180	789,521	575,956
balance check	0	0	0	0	0
debt to equity ratio	548%	732%	588%	-2746%	-327%

2.2 Causes of Financial Distress

2.2.1 Unwise Expansion from 1994

Midopa started to expand the size of firm in 1994 by acquisition of Nowon Cable Broadcasting's equity to 45%. Since then, Midopa's acquisition became even more active. In 1996, establishing a fully owned subsidiary Midopa Food system as a starting point, there has been a series of expanding activities. They are respectively 84.5% of equity contribution in Hanmae soft co. in 1996, 50% in Daenong Petrochemicals in 1996, and 93% in Spametro corp. in 1997. Those M&A activities were not relevant to Midopa's core business.

2.2.2 Intense Competition

Department store and retailing industry have faced an intense competition. First of all, increasing discount stores and multinational retail seller's entrance into domestic retail market produced a fierce price competition. Also, as the significance of e-commerce has been emphasized and this e-commerce has been considered a potential substitute for the existing retail store, competition has been intensified. In addition, a few chaebols' entrance into market such as LG (Boochon) and Daewoo (Masan) and the introduction of open price system by loosened government regulation caused another competition.

As a consequence, the market share of Midopa has decreased as follows.

<Table2 : Market Share Trend>

	1995	1996	1997	1998
Market Share	14.7%	9.95%	9.68%	7.96%

2.2.3 Poor Management

After opening Chunchon branch in 1996, Midopa was lack of capital. Having targeted

this weak point, Sindongbang Group, collaborated with Sungwon Group, tried to acquire Midopa through hostile M&A at the early of 1998. Midopa, in order to prevent from being acquired, spent 120 billion won, and this caused a serious lack in capital in other subsidiaries let alone itself like a backfire, which finally destroyed the entire Daenong Group.

And about 900 billion won cross loan payment guarantee for affiliated companies of Daenong Group triggered Midopa's distress.

2.2.4 Too Much Debt

Due to high debt to equity ratio, the amount of interest payment is larger than of operating profit.

<Table 3 : Increasing D/E ratio>

1995	1996	1997	1998
548%	732%	588%	Negative Equity

<Table 4 : Interest payment/operating Profit>

1995	1996	1997	1998
111%	114%	Negative Operating Profit	

2.2.5 Others

Among many other factors besides these internal factors the most influential one was rapid sales decrease due to the domestic economic recession since the financial crisis at the end of 1997.

This financial crisis created a domestic liquidity crunch, so that difficulties in recollecting the account receivable from customers who bought the goods in credit basis got heightened and tightened working capital of Midopa.

2.3. Occurrence of Financial Distress

Midopa failed to repay the commercial paper of 17.1 billion won due on March. 18, 1998 due to several causes mentioned before. Here, it is important to know whether Midopa's insolvency was "Flow Based" or "Stock Based". If it is "Flow Based" insolvency, just short-term capital injection through creditors' support can be effective. However, if it is "Stock Based" insolvency, a fundamental evaluation on the firm is required, because creditors should decide whether Midopa has to be liquidated or continue its business with restructuring process.

2.3.1 Negative Equity ("Stock Based")

Turning to negative equity from 1998, which was affected by decrease in assets and increase in debt, was mainly due to huge amount of provision. The huge amount of provision was resulted from guarantee for insolvent affiliated companies.

<Table 5 : Trend of financial status>

(Unit : billion won)

	1995	1996	1997	1998
Assets	591	946	968	789
Liabilities	500	656	827	819
Equity	91	89	140	-29

2.3.2 Cash Flow Shortage ("Flow Based")

Prior to turning to negative equity in terms of book value, Midopa failed to repay the commercial paper of 17.1 billion won due on March. 18, 1998. At that time banks began to deny revolving of outstanding loans as well as new lending.

2.3.3 Judgment

Apparently, Midopa's case is mixed with flow-based insolvency and stock-based insolvency. However, even though cash flow shortage occurred before negative equity in terms of book value, maybe market value of assets were probably less than debt value, which is possibly estimated by some Korean firms' practice of window dressing.

3. Forecasting of Financial Distress in Advance

3.1 Comparison of Financial Data with Industry Average

Except “Tangible asset / Sales”, all the other ratios are below industry average.

Declining of sales growth was attributed to poor marketing strategy of Midopa and increase in competition with new entrants.

Low turnover ratios of account receivable, investment assets, tangible assets came from inefficient asset management, which was a main factor to weaken cash flow.

High interest rate implied Midopa’s high-risk premium and involved high bankruptcy cost, which was caused by poor financial management.

Overall, Midopa lost competitiveness in retailing industry and recorded poor performance, which was a signal of financial distress.

<Table 6 : Ratio comparison>

Items	Industry Average	Midopa
Sales Growth	11.7%	-13.4%
Account Receivables / Sales	12.2%	40.6%
Investment Assets / Sales	12.0%	39.4%
Tangible Assets / Sales	139.7%	71.2%
Interest rate	11.8%	14.4%

3.2 Z-Score Application of Midopa Case

The Z-score model, multiple discriminant analysis, can be calculated based on Midopa’s publicly announced financial data as following table.

<Table 7 : Calculation of Z-score>

(Unit : billion won)

	1995	1996	1997	1998	1999
Total assets	591.3	746.5	968.2	789.5	576.0
Net working capital	111.8	190.7	239.3	-46.2	-55.9
Retained earnings	7.0	5.5	-61.8	-286.5	-507.8
EBIT	-9.4	-8.1	-7.0	-6.1	-5.3
Number of stocks (million)	10.5	10.5	15.0	18.7	18.7
Stock price (won)	10,600	12,500	6,000	310	875
Market value of equity	111.3	131.2	90.0	5.7	16.3
Total liabilities	500.0	656.7	8927.5	819.3	8293.8
Sales	241.4	209.0	181.0	156.7	135.7
X1	18.907	25.546	24.716	-5.852	-9.705
X2	1.184	0.737	-6.383	-36.289	-88.160
X3	-1.590	-1.085	-0.723	-0.773	-0.920
X4	22.260	19.979	1.008	0.696	0.197
X5	0.408	0.280	0.187	0.198	0.236
Z-Score	0.780	0.713	0.398	-0.378	-1.117

X1 = net working capital / total assets

X2 = retained earnings / total assets

X3 = EBIT / total assets

X4 = market value of equity /book value of total liabilities

X5 = sales / total assets

According to Altman's original Z-score model's prediction, Midopa had been predicted to fail within 1 year, because the score is below 1.81.

If it is simply applied, Midopa's financial distress was forecasted from 1995. Then the situation was worsened afterwards.

However, because the model is made based on the US firms' performance, it may not be adequate to apply to Korean firms. Especially due to high debt to equity ratio and emphasis on sales rather than profit, which were the ordinary Korean firms' status and behavior in the past, Korean firms can not achieve high Z-Score.

Although Midopa cannot be evaluated well through ZScore model, its Z-score is too low which mainly resulted from negative working capital, negative EBIT, and negative retained earnings.

IV. Valuation and Restructuring of Midopa

1. Forecasting of Liquidation Value

1.1 Use of Liquidation Value

Liquidation value is the amount of cash to be resulted through orderly sale of creditor's assets. Liquidation value comparing to reorganization value as going concern gives basic information to creditor whether the firm should be liquidated or continue its operation in order to minimize the creditor's loss.

1.2 Evaluation of Midopa's Assets

The evaluation is based on general practice of accounting and reasonable adjustment. Book value was quoted from annual report of 1999.

1.2.2 Cash & Cash Equivalent

There is no factor to discount the asset value, because cash is cash itself and cash equivalent can be converted into cash without devaluation in most cases.

<Table 8 : Liquidation Value of Cash & Cash Equivalent>

(Unit : million won)

	Book value	Adjustment	Market value
Cash	903	0	903
Demand deposit	10,875	0	10,875
CD	290	0	290
Saving deposit	28,448	0	28,448
Other deposit	238	0	238
Sum	40,756	0	40,756

1.2.3. Account Receivables

Provision for potential loan loss was reflected in book value. However, about 1% of provision was applied in trading credit amount. In consideration that most trading credit were occurred from transaction with affiliated companies who have also difficulties of financial distress, 1% of provision is too small. So, in calculating the market value, at least 30% of provision should be applied.

<Table 9 : Liquidation Value of Account receivables>

(Unit : million won)

	Book value	Adjustment	Market value
Trading credit	10,418	- 30%	7,293
Others	-----	-----	-----
Sum	14,272	- 3,125	11,147

1.2.4 Inventories

The value of inventories can be calculated by assessment of quantities and price

<Table 10: Liquidation Value of Cash & Cash Equivalent>

(Unit : million won)

	Book value	Adjustment	Market value
Inventories	28,559	- 50%	14,280

According to Midopa annual report, quantities of inventories are determined by site investigation at the end of fiscal year.

Price of inventories should be the real price connected with actual sales price, which can be considered the market price in normal business situation.

However, It was general that inventories were sold at the significantly discounted price in case of liquidation. So, 50% discount is applied to calculate the imaginary market value of inventories.

1.2.5 Other Current Assets

There is no factor to discount the assets value, because the other current assets were mainly consisted with pre-paid expenses.

<Table 11 : Liquidation Value of Other Current Assets>

(Unit : million won)

	Book value	Adjustment	Market value
Other current assets	5,015	0	5,015

1.2.6 Investment Assets

In the annual report, investment securities have already been adjusted after deducting the value of insolvent affiliated companies.

Long-term lending was provided to affiliated companies, which are currently insolvent, and it is very uncertain for Midopa to be repaid the total amount of lending. So, 80% discount is applied.

<Table 12 : Liquidation Value of Cash & Cash Equivalent>

(Unit : million won)

	Book value	Adjustment	Market value
Long-term deposit	2,225	0	2,225
Special deposit	230	0	230
Investment securities	2,205	0	2,205
Long-term lending	31,585	- 80%	6,317
Others	-----	-----	-----
Sum	45,095	- 25,268	19,827

1.2.7 Tangible Assets

Midopa conducted asset revaluation several times and adjusted their asset value to be similar to market value.

However, in insolvent situation, it is inevitable for Midopa to sell their tangible asset at discounted price. Especially tangible assets like land, buildings are not easily sold in the short run. Also it is very difficult to find proper buyers who are willing to pay for the asset at fair price. Normally, assets of insolvent firm were sold through public auction in a court in which the average discount was 40%. So, 40% discount for land and building is applied.

Facilities and vehicles are also difficult to be sold, because the usage of assets is quite limited. 50% discount is applied here.

Construction project stopped due to financial distress of Midopa, which result in the significant value destruction of under construction assets. 80% discount for under construction assets is applied.

<Table 13 : Liquidation Value of Tangible Assets>

(Unit : million won)

	Book value	Adjustment	Market value
Land	243,248	-40%	145,949
Building	162,781	-40%	97,669
Facilities	8,128	-50%	4,064
Vehicles	75	-50%	38
Under construction	13,278	-80%	2,656
Others	9,354	-20%	7,483
Sum	436,926	-179,006	257,858

1.2.8 Intangible Assets

There is little factor to discount the assets value, because the large portion of intangible asset come form the right of road usage which was provided by city authority for Midopa' s contribution in the road construction.

<Table 14 : Liquidation Value of Intangible Assets>

(Unit : million won)

	Book value	Adjustment	Market value
Intangible assets	5,333	0	5,333

1.3 Total Imaginary Liquidation Value

Even though assessment process applied above tables contains objective assumption, the imaginary liquidation value of Midopa is 354,216 million won.

<Table 15 : Sum of Liquidation Value>

(Unit : million won)

	Book value	Adjustment	Market value
Cash & cash equivalent	40,756	0	40,756
Account receivables	14,272	- 3,125	11,147
Inventories	28,559	-14,280	14,280
Other current assets	5,015	0	5,015
Investment assets	45,095	- 25,268	19,827
Tangible assets	436,926	-179,006	257,858
Intangible assets	5,333	0	5,333
Sum	575,956	- 221,679	354,216

2. Forecasting of Reorganization Value as Going Concern

Reorganization value can be estimated by applying the valuation technique. Normally discount cash flow technique is adopted. Here, simplified financial model is been making to calculate net present value (NPV). Four scenarios are assumed in financial model. Starting from scenario #1 to #4, financial models are developed to achieve the more positive results.

2.1 Quotation of Financial Statement and Starting Point of Valuation

Here, the annual report of Midopa as of 1999 was used, in which Midopa's business activities are stipulated during the fiscal year, from July 1998 to June 1999.

The reorganization process of Midopa through court receivership is started from May 1999. So, the annual report of 1999 did not influenced by reorganization. Even though Midopa was insolvent in May 1998 due to failure to pay its financial obligation on due date, it is possible to evaluate Midopa's value as at the end of June 1999.

Therefore, the period of historical performance ends in 1999 and future forecasting is begun form 2000.

2.2 Structure of Financial Model

Most of the value drivers used in the financial model are linked to "Sales" except "Depreciation", "Amortization" "Interest payment" "Interest earning", and "Tax" in the income statement. "Depreciation" and "Amortization" are calculated based on "tangible assets" and "Intangible assets" respectively. "Interest payment" "Interest earning" are linked to "interest bearing liabilities" and "Cash and cash equivalent"

respectively. In balance sheet, “Cash and cash equivalent” and “Long-term debt” are used as a plug to balance the credit and debit side.

Most of the ratios used in basic assumptions are determined by average of Midopa historical data for last 4 years and average of Department store industry’s historical data for last 3 years. Detailed basic assumption is explained in each scenario.

Discount rate is determined to calculate the net present value including terminal value based on weighted average cost of capital (WACC). However, 100% leverage ratio is used due to negative equity, which does not result in any effect on cost of equity. In case of valuation for financially distressed firm, we can say the creditor is the only investor. So, the creditor’s rate of required return could be the rate of expected return for the firm.

Cost of debt is based on the interest payment rate in financial model.

Explicit forecasting year is from 2000 to 2004 and terminal value is calculated based on the free cash flow of last explicit forecasting year, 2004.

2.3 Scenario #1 of Reorganization Value

2.3.1 Assumption

Here, simple average of Midopa's historical performance is used as value drivers for forecasting.

Sales growth rate is negative. The sum of COGS (cost of good sold) and SG&A (sales and general administration expenses) exceeds sales, in which we cannot expect positive value of the firm.

The average figures are affected by the performance of IMF era. Some figures in 1998 and 1999 are quite different form the figures of previous years.

<Data3 : Assumption of Scenario #1>

Forecasting

Basic Assumption from Historical Data of Midopa

	1996	1997	1998	1999	Average
Sales growth	16.7%	-11.1%	-36.8%	-22.5%	-13.4%
COGS / Sales	71.4%	77.3%	75.9%	72.0%	74.2%
SG&A / Sales	19.2%	22.9%	56.4%	20.3%	29.7%
Non-operating income / Sales	0.6%	1.8%	7.7%	1.5%	2.9%
Non-operating expenses / Sales	0.1%	1.1%	29.8%	89.0%	30.0%
Extraordinary income / Sales	0.0%	0.0%	0.1%	17.9%	4.5%
Extraordinary loss / Sales	0.0%	0.1%	3.5%	0.5%	1.0%
Depreciation	2.6%	2.2%	1.6%	1.6%	2.0%
Amortization	17.6%	18.9%	29.1%	26.3%	23.0%
Account receivable / Sales	34.4%	46.8%	5.9%	5.1%	23.0%
Inventory / Sales	8.7%	9.9%	7.3%	10.2%	9.0%
Other current asset / Sales	2.3%	2.7%	0.8%	1.8%	1.9%
Investment asset / Sales	24.7%	40.5%	76.4%	16.2%	39.4%
Tangible asset / Sales	42.3%	60.6%	122.6%	156.7%	95.5%
Intangible asset / Sales	1.3%	1.3%	2.4%	1.9%	1.7%
Account Payable / Sales	13.3%	14.6%	26.1%	35.4%	22.3%
Other current liabilities / Sales	16.2%	35.2%	75.4%	15.2%	35.5%
Other fixed liabilities / Sales	4.2%	5.9%	5.9%	4.9%	5.2%
Interest rate for payment	13.9%	15.0%	24.2%	5.5%	14.6%
Interest rate for earning					10.0%
Dividend payout ratio					0.0%
Tax rate					31.0%

2.3.2 Income Statement

Due to negative sales growth, sales revenue decrease as time goes by. Operating profit shows negative figure. The firm should pay the huge amount of interest expenses. Naturally the firm is estimated to record the huge loss in the future.

<Data 4 : Income Statement of Scenario #1>

Forecasting

Income Statement

	(unit : million won)				
	2000	2001	2002	2003	2004
Revenue	241,382	209,004	180,968	156,694	135,675
- COGS	179,009	154,997	134,206	116,204	100,617
(Depreciation)	4,601	3,984	3,449	2,987	2,586
Gross profit	57,772	50,023	43,313	37,503	32,472
- SG&A	71,668	62,055	53,731	46,524	40,283
Operating Profit	(13,896)	(12,032)	(10,418)	(9,021)	(7,811)
+ Interest earning	0	0	0	0	0
+ Other non-operating income	7,035	6,091	5,274	4,567	3,954
- Interest expenses	99,901	121,716	146,641	175,295	208,390
- Amortization	962	833	721	624	541
- Other non-operating expenses	72,457	62,738	54,322	47,036	40,727
Ordinary Profit	(180,181)	(191,227)	(206,828)	(227,409)	(253,514)
+ Extraordinary income	10,964	9,493	8,220	7,117	6,163
- Extraordinary loss	2,509	2,172	1,881	1,628	1,410
Net income before tax	(171,726)	(183,906)	(200,489)	(221,920)	(248,761)
- Corporate tax	0	0	0	0	0
Net income aftr tax	(171,726)	(183,906)	(200,489)	(221,920)	(248,761)

2.3.3 Balance Sheet

In this scenario, liabilities are always bigger than assets. Due to the loss occurred, the negative figures in retained earnings are getting bigger. Accordingly, the firm needs to borrow more money, which is linked to the increase in long-term debt. According to sales decrease, it is assumed for the firm to sell the assets, which explains the decrease in current and fixed assets.

<Data 5 : Balance Sheet of Scenario #1>

Forecasting

Balance Sheet

	(unit : million won)				
	2000	2001	2002	2003	2004
<Current asset>	82,032	71,028	61,501	53,251	46,108
Cash equivalent	0	0	0	0	0
Account receivable	55,608	48,148	41,690	36,098	31,256
Inventory	21,783	18,861	16,331	14,141	12,244
Others	4,641	4,019	3,480	3,013	2,609
<Fixed asset>	329,981	285,718	247,393	214,208	185,475
Investment asset	95,172	82,406	71,352	61,781	53,494
Tangible asset	230,623	199,688	172,902	149,710	129,628
Intangible asset	4,186	3,624	3,138	2,717	2,353
Total asset	412,012	356,746	308,893	267,459	231,583
<Current liabilities>	139,623	120,894	104,678	90,637	78,479
Short-term debt	0	0	0	0	0
Account payable	53,922	46,689	40,426	35,003	30,308
Others	85,701	74,206	64,252	55,633	48,171
<Fixed liabilities>	695,253	842,622	1,011,475	1,206,002	1,431,045
Long-term debt	682,636	831,697	1,002,015	1,197,812	1,423,953
Others	12,618	10,925	9,460	8,191	7,092
Total liabilities	834,876	963,516	1,116,153	1,296,639	1,509,524
<Equity>	(422,864)	(606,770)	(807,259)	(1,029,180)	(1,277,941)
Paid-in-capital	93,740	93,740	93,740	93,740	93,740
Capital surplus	162,963	162,963	162,963	162,963	162,963
Retained earning	(679,567)	(863,473)	(1,063,962)	(1,285,883)	(1,534,644)
Capital adjustment	0	0	0	0	0
Total liabilities and equity	412,012	356,746	308,893	267,459	231,583
balance check	0	0	0	0	0
debt to equity ratio	-197%	-159%	-138%	-126%	-118%

2.3.4 Valuation

Both present value from 2000 to 2004 and terminal value are negative. NPV is – 881,401 million won, which is resulted by decrease in sales and negative operating income.

This scenario #1 shows that there is no reason for the firm to continue its operation. However, the assumption based on simple average is not appropriate, because abnormal years of IMF era are included in average calculation.

<Data 6 : Valuation of Scenario #1>

Forecasting

Valuation

Free cash flow

	(unit : million won)				
	2000	2001	2002	2003	2004
Profit after tax	(171,726)	(183,906)	(200,489)	(221,920)	(248,761)
+ Depreciation	4,601	3,984	3,449	2,987	2,586
+ Amortization	962	833	721	624	541
+ After-tax interest payment	68,932	83,984	101,182	120,954	143,789
- Increase in current assets	(6,569)	(11,003)	(9,528)	(8,250)	(7,143)
+ Increase in current liabilities	(1,503)	(18,729)	(16,216)	(14,041)	(12,158)
- Increase in fixed assets at cost	(157,374)	(44,263)	(38,325)	(33,184)	(28,733)
+ Increase in fixed liabilities	(1,057)	(1,692)	(1,465)	(1,269)	(1,099)
Free cash flow	64,152	(60,261)	(64,966)	(71,232)	(79,226)

Cost of capital

Cost of debt	14.6%
Cost of equity	
Total liabilities / total assets	100%
Tax rate	31.0%
WACC	10.1%

Net present value

1. Existing cash at the end of 1999	40,755
2. Present value from 2000 to 2004	(137,580)
3. Terminal value after 2004	(784,577)
4. Net present value	(881,401)

2.4 Scenario #2 of Reorganization Value

2.4.1 Assumption

In order to avoid distorted average resulted from years of abnormal performance during IMF era, some revision on average calculation is conducted. Nine items are adjusted as follows.

<Data 7 : Assumption of Scenario #2>

Forecasting

Basic Assumption from Historical Data of Midopa excluding abnormal performance

	1996	1997	1998	1999	Average
Sales growth	16.7%	-11.1%	-36.8%	-22.5%	-13.4%
COGS / Sales	71.4%	77.3%	75.9%	72.0%	74.2%
<u>SG&A / Sales (1)</u>	19.2%	22.9%	56.4%	20.3%	20.8%
Non-operating income / Sales	0.6%	1.8%	7.7%	1.5%	2.9%
<u>Non-operating expenses / Sales (2)</u>	0.1%	1.1%	29.8%	89.0%	0.6%
<u>Extraordinary income / Sales (3)</u>	0.0%	0.0%	0.1%	17.9%	0.1%
<u>Extraordinary loss / Sales (4)</u>	0.0%	0.1%	3.5%	0.5%	0.2%
Depreciation	2.6%	2.2%	1.6%	1.6%	2.0%
Amortization	17.6%	18.9%	29.1%	26.3%	23.0%
<u>Account receivable / Sales (5)</u>	34.4%	46.8%	5.9%	5.1%	40.6%
Inventory / Sales	8.7%	9.9%	7.3%	10.2%	9.0%
Other current asset / Sales	2.3%	2.7%	0.8%	1.8%	1.9%
Investment asset / Sales	24.7%	40.5%	76.4%	16.2%	39.4%
<u>Tangible asset / Sales (6)</u>	42.3%	60.6%	122.6%	156.7%	139.7%
Intangible asset / Sales	1.3%	1.3%	2.4%	1.9%	1.7%
<u>Account Payable / Sales (7)</u>	13.3%	14.6%	26.1%	35.4%	13.9%
<u>Other current liabilities / Sales (8)</u>	16.2%	35.2%	75.4%	15.2%	22.2%
Other fixed liabilities / Sales	4.2%	5.9%	5.9%	4.9%	5.2%
<u>Interest rate for payment (9)</u>	13.9%	15.0%	24.2%	5.5%	14.4%
Interest rate for earning					10.0%
Dividend payout ratio					0.0%
Tax rate					31.0%

- (1) SG&A / Sales excluding 1998 performance due to abnormal provision for liabilities
- (2) Non-operating expenses / Sales excluding abnormal performance of 1998 & 1999
- (3) Extraordinary income / Sales excluding abnormal performance of 1998
- (4) Extraordinary loss / Sales excluding abnormal performance of 1998
- (5) Account receivable / Sales excluding abnormal performance of 1998 & 1999
- (6) Tangible asset / Sales excluding performance of 1996 & 1997 (before asset revaluation)
- (7) Account Payable / Sales excluding abnormal performance of 1998 & 1999
- (8) Other current liabilities / Sales excluding abnormal revenue decrease of 1998
- (9) Interest rate for payment excluding abnormal financial condition of 1998 & 1999

2.4.2 Income Statement

Operating profit is occurred. Yet, net income is still negative due to the huge amount of interest expenses.

<Data 8 : Income Statement of Scenario #2>

Forecasting

Income Statement

	(unit : million won)				
	2000	2001	2002	2003	2004
Revenue	241,382	209,004	180,968	156,694	135,675
- COGS	179,009	154,997	134,206	116,204	100,617
(Depreciation)	6,726	5,824	5,043	4,366	3,780
Gross profit	55,647	48,183	41,720	36,123	31,278
- SG&A	50,197	43,464	37,634	32,586	28,215
Operating Profit	5,450	4,719	4,086	3,538	3,063
+ Interest earning	0	0	0	0	0
+ Other non-operating income	7,035	6,091	5,274	4,567	3,954
- Interst expenses	118,284	126,387	137,440	151,726	169,605
- Amortization	962	833	721	624	541
- Other non-operating expenses	1,559	1,350	1,169	1,012	877
Ordinary Profit	(108,320)	(117,760)	(129,970)	(145,258)	(164,004)
+ Extraordinary income	184	159	138	119	103
- Extraordinary loss	532	460	399	345	299
Net income before tax	(108,668)	(118,062)	(130,231)	(145,484)	(164,200)
- Corporate tax	0	0	0	0	0
Net income aftr tax	(108,668)	(118,062)	(130,231)	(145,484)	(164,200)

2.4.3 Balance Sheet

Still total liabilities exceed total assets due to negative equity coming from accumulated losses.

<Data 9 : Balance Sheet of Scenario #2>

Forecasting

Balance Sheet

(unit : million won)

	2000	2001	2002	2003	2004
<Current asset>	124,321	107,645	93,206	80,704	69,878
Cash equivalent	0	0	0	0	0
Account receivable	97,897	84,765	73,395	63,550	55,026
Inventory	21,783	18,861	16,331	14,141	12,244
Others	4,641	4,019	3,480	3,013	2,609
<Fixed asset>	436,488	377,939	327,243	283,348	245,340
Investment asset	95,172	82,406	71,352	61,781	53,494
Tangible asset	337,130	291,908	252,753	218,849	189,493
Intangible asset	4,186	3,624	3,138	2,717	2,353
Total asset	560,809	485,584	420,449	364,051	315,218
<Current liabilities>	87,233	75,531	65,400	56,627	49,031
Short-term debt	0	0	0	0	0
Account payable	33,596	29,090	25,188	21,809	18,884
Others	53,636	46,442	40,212	34,818	30,148
<Fixed liabilities>	833,383	887,920	963,148	1,061,006	1,183,969
Long-term debt	820,765	876,995	953,688	1,052,815	1,176,877
Others	12,618	10,925	9,460	8,191	7,092
Total liabilities	920,615	963,451	1,028,547	1,117,633	1,233,000
<Equity>	(359,806)	(477,868)	(608,099)	(753,582)	(917,782)
Paid-in-capital	93,740	93,740	93,740	93,740	93,740
Capital surplus	162,963	162,963	162,963	162,963	162,963
Retained earning	(616,509)	(734,571)	(864,802)	(1,010,285)	(1,174,485)
Capital adjustment	0	0	0	0	0
Total liabilities and equity	560,809	485,584	420,449	364,051	315,218
balance check	0	0	0	0	0
debt to equity ratio	-256%	-202%	-169%	-148%	-134%

2.4.4 Valuation

Now, NPV shows positive value.

However, the terminal value is still negative which is resulted from decrease in sales growth and decrease in profits.

<Data 10 : Valuation of Scenario #2>

Forecasting

Valuation

Free cash flow

	(unit : million won)				
	2000	2001	2002	2003	2004
Profit after tax	(108,668)	(118,062)	(130,231)	(145,484)	(164,200)
+ Depreciation	6,726	5,824	5,043	4,366	3,780
+ Amortization	962	833	721	624	541
+ After-tax interest payment	81,616	87,207	94,834	104,691	117,027
- Increase in current assets	35,720	(16,676)	(14,439)	(12,502)	(10,825)
+ Increase in current liabilities	(53,893)	(11,701)	(10,132)	(8,773)	(7,596)
- Increase in fixed assets at cost	(50,867)	(58,549)	(50,696)	(43,895)	(38,007)
+ Increase in fixed liabilities	(1,057)	(1,692)	(1,465)	(1,269)	(1,099)
Free cash flow	(59,168)	37,634	23,904	10,554	(2,713)

Cost of capital

Cost of debt	14.4%
Cost of equity	
Total liabilities / total assets	100%
Tax rate	31.0%
WACC	9.9%

Net present value

1. Existing cash at the end of 1999	40,755
2. Present value from 2000 to 2004	838
3. Terminal value after 2004	(27,287)
4. Net present value	14,306

2.5 Scenario #3 of Reorganization Value

2.5.1 Assumption

Here, simple average of historical industry performance is used as value drivers for forecasting. Sales growth rate is estimated to increase. But, operating profit margin is too small.

<Data 11 : Assumption of Scenario #3>

Forecasting

Basic Assumption from Historical Industry Average

	1996	1997	1998	1999	Average
Sales growth	13.1%	33.3%	-11.2%		11.7%
COGS / Sales	75.2%	77.4%	78.3%		77.0%
SG&A / Sales	20.0%	19.6%	19.2%		19.6%
Non-operating income / Sales	0.8%	1.6%	1.8%		1.4%
Non-operating expenses / Sales	0.6%	0.8%	1.6%		1.0%
Extraordinary income / Sales	0.1%	0.5%	0.9%		0.5%
Extraordinary loss / Sales	0.0%	1.0%	1.7%		0.9%
Depreciation	3.9%	2.9%	2.9%		3.2%
Amortization	10.9%	7.2%	7.1%		8.4%
Account receivable / Sales	17.4%	12.0%	7.1%		12.2%
Inventory / Sales	14.0%	12.3%	10.5%		12.3%
Other current asset / Sales	2.0%	7.0%	5.8%		4.9%
Investment asset / Sales	13.4%	12.5%	10.2%		12.0%
Tangible asset / Sales	50.6%	66.5%	96.6%		71.2%
Intangible asset / Sales	0.1%	0.5%	0.6%		0.4%
Account Payable / Sales	23.6%	23.3%	22.1%		23.0%
Other current liabilities / Sales	12.0%	11.0%	12.7%		11.9%
Other fixed liabilities / Sales	7.6%	7.1%	9.9%		8.2%
Interest rate for payment	10.2%	11.3%	14.0%		11.8%
Interest rate for earning					8.0%
Dividend payout ratio					0.0%
Tax rate					31.0%

2.5.2 Income Statement

Even though we can expect some operating income, net income is still negative due to big interest expenses burden.

<Data 12 : Income Statement of Scenario #3>

Forecasting

Income Statement

	(unit : million won)				
	2000	2001	2002	2003	2004
Revenue	311,486	348,033	388,869	434,497	485,478
- COGS	239,740	267,870	299,300	334,418	373,656
(Depreciation)	7,174	8,016	8,956	10,007	11,182
Gross profit	64,571	72,148	80,613	90,072	100,640
- SG&A	61,051	68,215	76,218	85,161	95,154
Operating Profit	3,520	3,933	4,395	4,910	5,486
+ Interest earning	0	0	0	0	0
+ Other non-operating income	4,361	4,872	5,444	6,083	6,797
- Interest expenses	62,485	73,789	86,954	102,267	120,064
- Amortization	105	117	131	146	163
- Other non-operating expenses	3,115	3,480	3,889	4,345	4,855
Ordinary Profit	(57,823)	(68,581)	(81,134)	(95,765)	(112,799)
+ Extraordinary income	1,557	1,740	1,944	2,172	2,427
- Extraordinary loss	2,803	3,132	3,500	3,910	4,369
Net income before tax	(59,069)	(69,973)	(82,690)	(97,503)	(114,740)
- Corporate tax	0	0	0	0	0

2.5.3 Balance Sheet

Resulted from accumulated losses and increase in long-term debt, total liabilities exceed total assets as the same with scenario #1.

<Data 13 : Balance Sheet of Scenario #3>

Forecasting

Balance Sheet

(unit : million won)

	2000	2001	2002	2003	2004
<Current asset>	91,473	102,206	114,198	127,597	142,569
Cash equivalent	0	0	0	0	0
Account receivable	37,897	42,344	47,312	52,864	59,066
Inventory	38,209	42,692	47,701	53,298	59,552
Others	15,367	17,170	19,184	21,435	23,950
<Fixed asset>	260,610	291,188	325,354	363,529	406,183
Investment asset	37,482	41,880	46,794	52,284	58,419
Tangible asset	221,882	247,916	277,005	309,506	345,822
Intangible asset	1,246	1,392	1,555	1,738	1,942
Total asset	352,083	393,394	439,552	491,126	548,751
<Current liabilities>	108,709	121,464	135,715	151,639	169,432
Short-term debt	0	0	0	0	0
Account payable	71,642	80,048	89,440	99,934	111,660
Others	37,067	41,416	46,275	51,705	57,772
<Fixed liabilities>	553,581	652,110	766,706	899,859	1,054,433
Long-term debt	528,040	623,572	734,819	864,231	1,014,624
Others	25,542	28,539	31,887	35,629	39,809
Total liabilities	662,290	773,574	902,422	1,051,499	1,223,865
<Equity>	(310,207)	(380,180)	(462,870)	(560,373)	(675,113)
Paid-in-capital	93,740	93,740	93,740	93,740	93,740
Capital surplus	162,963	162,963	162,963	162,963	162,963
Retained earning	(566,910)	(636,883)	(719,573)	(817,076)	(931,816)
Capital adjustment	0	0	0	0	0
Total liabilities and equity	352,083	393,394	439,552	491,126	548,751
balance check	0	0	0	0	0
debt to equity ratio	-213%	-203%	-195%	-188%	-181%

2.5.4 Valuation

The first year's cash inflow is coming from mainly decrease in fixed assets, which is assumed that the firm would sell out its fixed assets in order to solve the liquidity problem. However, increase in operating loss resulted in negative NPV.

<Data 14 : Valuation of Scenario #3>

Forecasting

Valuation

Free cash flow

	(unit : million won)				
	2000	2001	2002	2003	2004
Profit after tax	(59,069)	(69,973)	(82,690)	(97,503)	(114,740)
+ Depreciation	7,174	8,016	8,956	10,007	11,182
+ Amortization	105	117	131	146	163
+ After-tax interest payment	43,114	50,915	59,998	70,564	82,844
- Increase in current assets	2,872	10,733	11,992	13,399	14,971
+ Increase in current liabilities	(32,417)	12,755	14,252	15,924	17,792
- Increase in fixed assets at cost	(226,745)	30,578	34,166	38,175	42,654
+ Increase in fixed liabilities	11,867	2,997	3,349	3,741	4,180
Free cash flow	194,647	(36,485)	(42,162)	(48,694)	(56,204)

Cost of capital

Cost of debt	11.8%
Cost of equity	
Total liabilities / total assets	100%
Tax rate	31.0%
WACC	8.2%

Net present value

1. Existing cash at the end of 1999	40,755
2. Present value from 2000 to 2004	41,918
3. Terminal value after 2004	(688,357)
4. Net present value	(605,685)

2.6 Scenario #4 of Reorganization Value

2.6.1 Assumption

Here, all the assumptions are chosen under the condition that Midopa would do its best effort to achieve highly effective operating results. 10% cost savings are applied in COGS and SG&A. Sales growth rate is estimated by expert institution. Although these assumptions are somewhat optimistic, it is the way for Midopa to go for the purpose of its revival.

<Data 15 : Assumption of Scenario #4>

Forecasting

Adjusted Basic Assumption

		Adjustment
Sales growth	Estimated by Kistrating	7.2%
COGS / Sales	10% cost saving from 75.9% of Midopa historical average performance	66.7%
SG&A / Sales	10% cost saving from 19.6% of Industry historical average performance	18.7%
Non-operating income / Sales	Adjusted historical performance of Midopa	2.9%
Non-operating expenses / Sales	Adjusted historical performance of Midopa	0.6%
Extraordinary income / Sales	Industry Average	0.5%
Extraordinary loss / Sales	Industry Average	0.9%
Depreciation	Adjusted historical performance of Midopa	2.0%
Amortization	Adjusted historical performance of Midopa	23.0%
Account receivable / Sales	Industry Average	12.2%
Inventory / Sales	Adjusted historical performance of Midopa	9.0%
Other current asset / Sales	Adjusted historical performance of Midopa	1.9%
Investment asset / Sales	Industry Average	12.0%
Tangible asset / Sales	Industry Average	71.2%
Intangible asset / Sales	Industry Average	0.4%
Account Payable / Sales	Industry Average	23.0%
Other current liabilities / Sales	Adjusted historical performance of Midopa	22.2%
Other fixed liabilities / Sales	Industry Average	8.2%
Interest rate for payment	Industry Average	11.8%
Interest rate for earning	Forecasting	8.0%
Dividend payout ratio		0.0%
Tax rate		31.0%

2.6.2 Income Statement

Now, Midopa can record a big operating profit through 10% cost saving effect. Also ordinary income turned into positive from 2002.

<Data 16 : Income Statement of Scenario #4>

Forecasting

Income Statement

	(unit : million won)				
	2000	2001	2002	2003	2004
Revenue	298,848	320,365	343,431	368,158	394,666
- COGS	199,463	213,825	229,220	245,724	263,416
(Depreciation)	4,247	4,553	4,881	5,232	5,609
Gross profit	95,138	101,988	109,331	117,202	125,641
- SG&A	55,933	59,960	64,277	68,905	73,866
Operating Profit	39,205	42,027	45,053	48,297	51,775
+ Interest earning	0	0	0	0	0
+ Other non-operating income	8,710	9,337	10,009	10,730	11,503
- Interest expenses	49,135	50,866	52,479	53,969	55,364
- Amortization	275	294	316	338	363
- Other non-operating expenses	1,931	2,070	2,219	2,378	2,550
Ordinary Profit	(3,425)	(1,865)	49	2,341	5,001
+ Extraordinary income	1,494	1,602	1,717	1,841	1,973
- Extraordinary loss	2,690	2,883	3,091	3,313	3,552
Net income before tax	(4,621)	(3,147)	(1,324)	868	3,423
- Corporate tax	0	0	0	269	1,061
Net income aftr tax	(4,621)	(3,147)	(1,324)	599	2,362

2.6.3 Balance Sheet

Now, the level of long-term debt is stable. Although total liabilities still exceed total asset, the negative equity starts to decrease from 2004.

<Data 17 : Balance Sheet of Scenario #4>

Forecasting

Balance Sheet

(unit : million won)

	2000	2001	2002	2003	2004
<Current asset>	69,075	74,048	79,380	85,095	91,222
Cash equivalent	0	0	0	0	0
Account receivable	36,360	38,978	41,784	44,793	48,018
Inventory	26,969	28,911	30,992	33,224	35,616
Others	5,746	6,160	6,603	7,079	7,589
<Fixed asset>	250,036	268,039	287,337	308,026	330,204
Investment asset	35,961	38,551	41,326	44,302	47,491
Tangible asset	212,879	228,207	244,637	262,251	281,133
Intangible asset	1,195	1,281	1,374	1,473	1,579
Total asset	319,111	342,087	366,717	393,121	421,426
<Current liabilities>	135,141	144,871	155,302	166,483	178,470
Short-term debt	0	0	0	0	0
Account payable	68,735	73,684	78,989	84,676	90,773
Others	66,406	71,187	76,312	81,807	87,697
<Fixed liabilities>	439,729	456,122	471,646	486,268	500,225
Long-term debt	415,224	429,852	443,484	456,079	467,862
Others	24,506	26,270	28,161	30,189	32,363
Total liabilities	574,870	600,993	626,947	652,752	678,695
<Equity>	(255,759)	(258,906)	(260,230)	(259,631)	(257,269)
Paid-in-capital	93,740	93,740	93,740	93,740	93,740
Capital surplus	162,963	162,963	162,963	162,963	162,963
Retained earning	(512,462)	(515,609)	(516,933)	(516,334)	(513,972)
Capital adjustment	0	0	0	0	0
Total liabilities and equity	319,111	342,087	366,717	393,121	421,426
balance check	0	0	0	0	0
debt to equity ratio	-225%	-232%	-241%	-251%	-264%

2.6.4 Valuation

NPV is quite big compared with previous scenario, even though the assumptions are somewhat optimistic.

<Data 18 : Valuation of Scenario #4>

Forecasting

Valuation

Free cash flow

	(unit : million won)				
	2000	2001	2002	2003	2004
Profit after tax	(4,621)	(3,147)	(1,324)	599	2,362
+ Depreciation	4,247	4,553	4,881	5,232	5,609
+ Amortization	275	294	316	338	363
+ After-tax interest payment	33,903	35,097	36,210	37,239	38,201
- Increase in current assets	(19,526)	4,973	5,331	5,715	6,127
+ Increase in current liabilities	(5,985)	9,730	10,431	11,182	11,987
- Increase in fixed assets at cost	(237,319)	18,003	19,299	20,688	22,178
+ Increase in fixed liabilities	10,831	1,764	1,891	2,028	2,174
Free cash flow	295,494	25,316	27,774	30,214	32,390

Cost of capital

Cost of debt	11.8%
Cost of equity	
Total liabilities / total assets	100%
Tax rate	31.0%
WACC	8.2%

Net present value

1. Existing cash at the end of 1999	40,755
2. Present value from 2000 to 2004	360,724
3. Terminal value after 2004	396,688
4. Net present value	798,167

3. Financial Restructuring

After finishing valuation of a firm, it is time to find out optimal treatment on the firm. If liquidation value is higher than reorganization value, it is better for the firm to be liquidated. However, if reorganization value is greater than liquidation value, it is expected for the firm to be continued its business. Then financial restructuring is required in order to accelerate the firm's normalization.

3.1 Comparison between Liquidation Value and Reorganization Value

3.1.1 Liquidation Value

Liquidation value is estimated to be 354,216 million won and creditors' loss is -475,625 million won in terms of market value. Creditors loss -475,625 million won is estimated by subtracting total liabilities from liquidation value.

<Table 16 : Liquidation Value and Creditors' Loss>

(Unit : million won)

	Value	Creditors' loss
Book value	575,956	- 253,885
Assessed market value	354,216	- 475,625

* Creditors' loss = firm value – total outstanding liabilities

* Total outstanding liabilities : 829,841 billion won (as at the end of 1999)

3.1.2 Reorganization Value

Reorganization value has the range from -881,401 to 798,167 according to scenarios. So does creditors' loss from -1,711,241 to -31,674 million won.

<Table 17 : Reorganization Value and Creditors' Loss>

(Unit : million won)

	Value	Creditors' loss
Scenario #1	- 881,401	- 1,711,241
Scenario #2	14,306	- 815,535
Scenario #3	- 605,685	- 1,435,526
Scenario #4	798,167	- 31,674

3.1.3 Comparison of Value

Without financial restructuring, all reorganization values as well as liquidation value are not enough to repay the total outstanding liabilities.

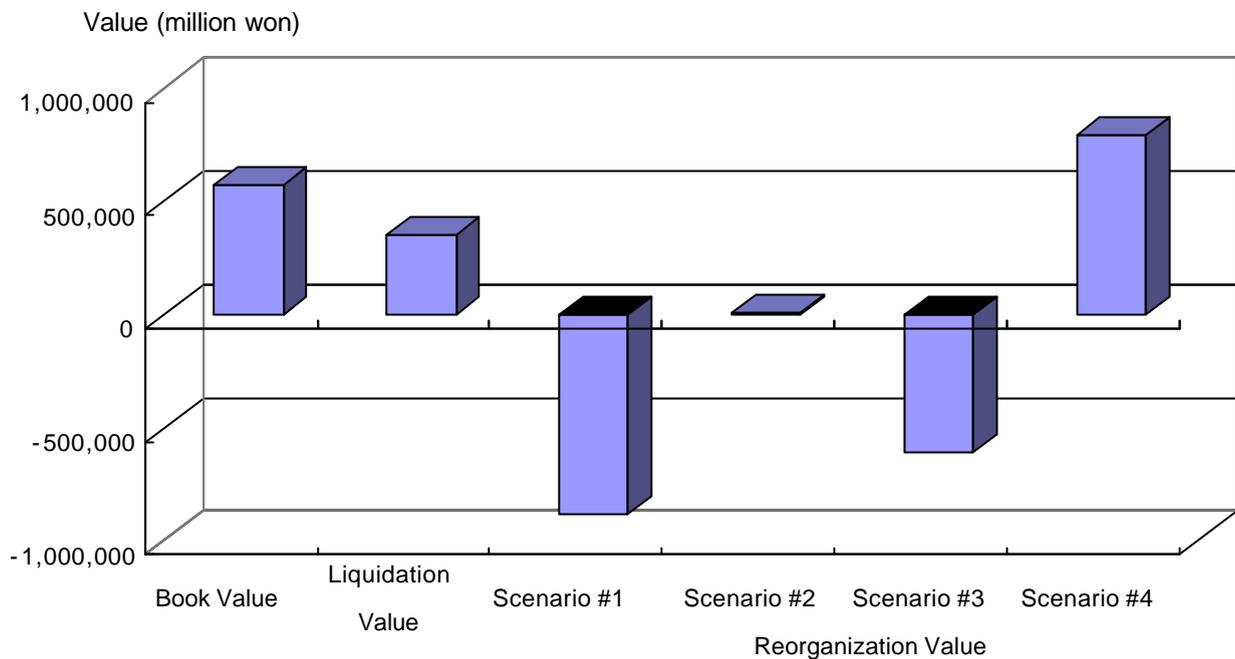
The magnitude of creditors' loss is huge in every scenario of reorganization value as well as liquidation value. The best scenario shown in Scenario #4 assumes the most optimistic assumption including 10% cost saving effect.

So, from the creditors' point of view, it is very difficult to judge whether Midopa should be liquidated or continue its operation through reorganization.

Even though the liquidation value is larger than reorganization value in the scenario #1, #2, #3, it does not give a confident signal for creditors to choose a liquidation of the firm, because the size of loss affecting to creditors is too huge in both cases.

In the case of scenario #4, creditors can reduce their losses significantly, even though the possibility of the assumed operation is uncertain.

< Chart 2 : Comparison of Value >



3.2 Need for Financial Restructuring

If the creditors decide to have their loan repaid from distressed firm through continuous operation rather than liquidation, financial supports to the firm are needed to alleviate firm's financial burden and to create profits through stable operation.

To provide some favorable condition to financially distressed firm or to change existing debt condition into less burdensome also give creditors certain merits such as securing and accelerating of debt repayment.

Recently, there are a few methods that creditors can generally provide to firm in Korea.

3.2.1. Recapitalization through Debt for Equity Swap

Some portion of debt is converted into equity to alleviate debtors' interest payment burden. Creditors can take capital gain when the firm is normalized.

Usually, creditors require the capital reduction to existing shareholders, especially majority shareholders before conducting the debt for equity swap.

3.2.2 Debt Rescheduling or Debt Forgiveness

Through this method, creditors can stabilize a financially distressed firm. Then the firm can be free from cash flow shortage in the short run. Usually, short-term debt is converted into long-term debt and some years of grace period is applied.

3.2.3 Interest Exemption or Interest Rate Reduction

Through this method, creditors can also stabilize a financially distressed firm. Usually this is used together with debt rescheduling mentioned in 3.2.2.

3.3 Imaginary Restructuring of Midopa

It is difficult for creditors to choose the one alternative between liquidation and reorganization of Midopa. However, it is clear that the scenario #4 can be the choice of creditors when creditors simply compare the valuation results.

Although the creditors' losses can be minimized through scenario #4, financial restructuring is required in order to accelerate the normalization of Midopa.

Therefore, we are making another financial model, scenario #5, reflecting the financial restructuring. In scenario #5, debt for equity swap and reduction of interest rate are adopted to reduce interest payment burden. 100% of capital reduction is assumed, which can satisfy creditors who are to convert their debt into equity.

The amount of debt for equity swap is 50% of total outstanding long-term debt as at the end of 1999. Then 1% of interest rate is reduced in order for firm value to exceed the debt value.

Therefore, creditors can be repaid all their outstanding debt afterwards through debt repayment (50%) and selling their stock (50%) obtained from debt for equity swap.

Debt rescheduling, debt forgiveness and interest exemption is not applied here.

3.4 Scenario #5 of Reorganization Value

3.4.1 Assumption

Most of value drivers are same with those of scenario #4. According to financial restructuring, long-term debt is decreased in half and interest rate is reduced from 11.8% to 10.8%.

<Data 19 : Assumption of Scenario #5>

Forecasting

Adjusted Basic Assumption with Financial Restructuring

		Adjustment
Sales growth	Estimated by Kistrating	7.2%
COGS / Sales	10% cost saving from 75.9% of Midopa historical average performance	66.7%
SG&A / Sales	10% cost saving from 19.6% of Industry historical average performance	18.7%
Non-operating income / Sales	Adjusted historical performance of Midopa	2.9%
Non-operating expenses / Sales	Adjusted historical performance of Midopa	0.6%
Extraordinary income / Sales	Industry Average	0.5%
Extraordinary loss / Sales	Industry Average	0.9%
Depreciation	Adjusted historical performance of Midopa	2.0%
Amortization	Adjusted historical performance of Midopa	23.0%
Account receivable / Sales	Industry Average	12.2%
Inventory / Sales	Adjusted historical performance of Midopa	9.0%
Other current asset / Sales	Adjusted historical performance of Midopa	1.9%
Investment asset / Sales	Industry Average	12.0%
Tangible asset / Sales	Industry Average	71.2%
Intangible asset / Sales	Industry Average	0.4%
Account Payable / Sales	Industry Average	23.0%
Other current liabilities / Sales	Adjusted historical performance of Midopa	22.2%
Other fixed liabilities / Sales	Industry Average	8.2%
Interest rate for payment	Industry Average	10.8%
Interest rate for earning	Forecasting	8.0%
Dividend payout ratio		0.0%
Tax rate		31.0%

Capital Reduction	100%
Debt for Equity Swap	50% of total outstang debt as at the end of 1999
Interest Reduction	1%
Deb Forgiveness	0
Interest Exemption	0

3.4.2 Income Statement

Interest expenses are significantly reduced after debt for equity swap. Accordingly, net income is getting bigger continuously.

<Data 20 : Income Statement of Scenario #5>

Forecasting

Income Statement

	(unit : million won)				
	2000	2001	2002	2003	2004
Revenue	298,848	320,365	343,431	368,158	394,666
- COGS	199,463	213,825	229,220	245,724	263,416
(Depreciation)	4,247	4,553	4,881	5,232	5,609
Gross profit	95,138	101,988	109,331	117,202	125,641
- SG&A	55,933	59,960	64,277	68,905	73,866
Operating Profit	39,205	42,027	45,053	48,297	51,775
+ Interest earning	0	0	0	0	0
+ Other non-operating income	8,710	9,337	10,009	10,730	11,503
- Interest expenses	15,936	14,713	13,210	11,392	9,219
- Amortization	275	294	316	338	363
- Other non-operating expenses	1,931	2,070	2,219	2,378	2,550
Ordinary Profit	29,773	34,288	39,319	44,919	51,146
+ Extraordinary income	1,494	1,602	1,717	1,841	1,973
- Extraordinary loss	2,690	2,883	3,091	3,313	3,552
Net income before tax	28,578	33,006	37,945	43,446	49,567
- Corporate tax	8,859	10,232	11,763	13,468	15,366
Net income aftr tax	19,719	22,774	26,182	29,978	34,201

1.4.3 Balance Sheet

Now, the amount of total assets exceeds total liabilities. Debt to equity ratio starts to drop from 2000.

<Data 21 : Balance Sheet of Scenario #5>

Forecasting

Balance Sheet

(unit : million won)

	2000	2001	2002	2003	2004
<Current asset>	69,075	74,048	79,380	85,095	91,222
Cash equivalent	0	0	0	0	0
Account receivable	36,360	38,978	41,784	44,793	48,018
Inventory	26,969	28,911	30,992	33,224	35,616
Others	5,746	6,160	6,603	7,079	7,589
<Fixed asset>	250,036	268,039	287,337	308,026	330,204
Investment asset	35,961	38,551	41,326	44,302	47,491
Tangible asset	212,879	228,207	244,637	262,251	281,133
Intangible asset	1,195	1,281	1,374	1,473	1,579
Total asset	319,111	342,087	366,717	393,121	421,426
<Current liabilities>	135,141	144,871	155,302	166,483	178,470
Short-term debt	0	0	0	0	0
Account payable	68,735	73,684	78,989	84,676	90,773
Others	66,406	71,187	76,312	81,807	87,697
<Fixed liabilities>	171,610	162,081	150,099	135,343	117,459
Long-term debt	147,104	135,811	121,938	105,154	85,097
Others	24,506	26,270	28,161	30,189	32,363
Total liabilities	306,750	306,952	305,401	301,826	295,930
<Equity>	12,361	35,135	61,317	91,295	125,496
Paid-in-capital	337,520	337,520	337,520	337,520	337,520
Capital surplus	162,963	162,963	162,963	162,963	162,963
Retained earning	(488,122)	(465,348)	(439,166)	(409,188)	(374,987)
Capital adjustment	0	0	0	0	0
Total liabilities and equity	319,111	342,087	366,717	393,121	421,426
balance check	0	0	0	0	0
debt to equity ratio	2482%	874%	498%	331%	236%

3.4.4 Valuation

Here, NPV as a firm value is bigger than outstanding debt as at the end of 1999.

<Data 22 : Valuation of Scenario #5>

Forecasting

Valuation

Free cash flow

(unit : million won)

	2000	2001	2002	2003	2004
Profit after tax	19,719	22,774	26,182	29,978	34,201
+ Depreciation	4,247	4,553	4,881	5,232	5,609
+ Amortization	275	294	316	338	363
+ After-tax interest payment	10,996	10,152	9,115	7,860	6,361
- Increase in current assets	(19,526)	4,973	5,331	5,715	6,127
+ Increase in current liabilities	(5,985)	9,730	10,431	11,182	11,987
- Increase in fixed assets at cost	(237,319)	18,003	19,299	20,688	22,178
+ Increase in fixed liabilities	10,831	1,764	1,891	2,028	2,174
Free cash flow	296,927	26,292	28,185	30,214	32,390

Cost of capital

Cost of debt	10.8%
Cost of equity	
Total liabilities / total assets	100%
Tax rate	31.0%
WACC	7.5%

Net present value

1. Existing cash at the end of 1999	40,755
2. Present value from 2000 to 2004	366,973
3. Terminal value after 2004	433,306
4. Net present value	841,034

V. Conclusion

1. Implication of the Study

Through the case study of Midopa Department Store, four implications regarding financial distress are observed.

First, financial distress results from a combination of several causes such as unwise expansion, intense competition, poor management, and excessive debt.

In the case of Midopa, financial distress was caused by a combination of 1) unwise expansion through M&A, 2) decrease in market share by intense competition resulting from chaebol's new entrance and introduction of discount stores, 3) poor management against hostile M&A, and 4) high debt-to-equity ratio of over 500%.

Second, financial distress can be somewhat forecasted in advance.

In Midopa's case, critical ratios like sales growth rate, turnover ratio of account receivables and the level of financing cost were worse than those of the industry average. In the multiple discriminant analysis through the Z-score model, Midopa recorded a low Zscore, which implied the firm's failure within a year. For sure, it is recognized that the application of the Z-score model might be inadequate, because the model was made based on US firms' historical performance.

Third, the valuation is not an easy process and the results do not give a confident signal in decision-making of either liquidation or restructuring. In this case, the range of value is so wide according to assumptions of each scenario.

Finally, financial restructuring of a firm can accelerate firm's normalization and creditors can be repaid their money through capital gain from enhanced firm's equity value when they conducted debt for equity swap as shown in Midopa case.

2. Comparison between Pro-forma Restructuring and Real Situation

This thesis found that Midopa was explicitly “Flow-Based” and implicitly “Stock-Based” insolvent, and recommends restructuring instead of liquidation.

As a real situation, Midopa is now implementing a reorganization process under court receivership. Maybe real creditors also might anticipate that the reorganization value is higher than the liquidation value in line with the pro-forma valuation of conducted in chapter IV.

Currently, Midopa is accelerating a reorganization plan and pursuing normalization of operations within 3 years. Its target looks viable considering the currently enhanced performance such as 29% sales growth in the first half of 2000, which is much better than the forecasting of 7.2% in scenario #4 and #5.

Profitability was also improved. Midopa recorded a 10% operating profit margin in the first half, even though that record does not reach the estimates from scenario #4 and #5 assuming a 10% cost saving.

In summary, the recommendation for Midopa was continuous operation through reorganization instead of liquidation, which is similar to the current real situation of Midopa.

It is hoped that Midopa will achieve normalization within 3years as they announced.

BIBLIOGRAPHY

Altman, Edward, *Corporate Financial Distress and Bankruptcy*, John Wiley & Sons, N.Y., 1993

Bank of Korea, *Analysis of Corporate Management*, BOK, 1996 ~ 2000

Barealey, Richard A, and Stewart C. Myers, *Principles of Corporate Finance*, The McGraw-Hill Companies, Inc., 1997

Basu, Sam N, and Harold L Rolfes Jr, *Strategic Credit Management*, John Wiley & Sons, Inc., 1993

Benninga, Simon, *Financial Modeling*, MIT Press, 1997

Emery, Douglas, and John D. Finnerty, *Corporate Finance Management*, Prentice-Hall International, Inc., 1997

Goo, Bon Chun, *The Rule of Corporate Bankruptcy*, Korea Development Institute, 1999

Korea Institute of Finance, *Corporate Restructuring Seminar*, KIF, 1998

Pinches, George, *Financial Management*, Harper Collins Collage Publisher, 1995

Ross, Stephen A, and Randolph W. Westfield, *Corporate Finance*, Irwin, 1998

Ross, Willbur L., *Korea Corporate Restructuring Seminar*, N. M Rothschild Inc, 1998

Weston, J. Fred, and Kwang S. Chung, *Takeover, Restructuring and Corporate Governance*, Journal of Asia, 1999

Daewoo Securities Homepage (www.bestez.com)

Financial Supervisory Service Homepage (www.fss.or.kr and dart.fss.or.kr)

Korea Economic Daily (www.hankyubg.com)

Mail Economic Daily (www.mk.co.kr)

Midopa Department Store Homepage (www.midopa.co.kr)