#### **CRISIL Ratings Round-Up - 2001-02**

The financial year that has gone by was one of the most challenging for the Indian economy. Buffeted by pressures from many fronts - ranging from a depressed global economy post 9-11 to cross-border tensions at home - the economy saw declining industrial production and moderate gross domestic product (GDP) growth. These factors, coupled with the already extant capacity overhang in most of the manufacturing sector, made it a particularly forgettable year for corporate India. In face of all this, however, the credit quality of CRISIL rated entities seemed to hold-up pretty well as seen in our semi-annual "CRISIL Ratings Round-Up" series. This edition of the publication series looks at CRISIL's credit rating actions for the year ended March 31, 2002. The rating actions are analysed under four broad categories: rating upgrades and downgrades, rating stability rates, rating distribution and rated debt volumes. The study also analyses the linkages that macroeconomic factors have tended to have with systemic credit quality as represented by CRISIL's rating actions.

The year ended March 31, 2002 witnessed a downward pressure on CRISIL's rating actions compared to the previous year. Over the past year, CRISIL upgraded 1.6% of its long-term ratings, downgraded 15.1% and reaffirmed 83.3% of them. The stability of CRISIL ratings has improved in 2001-02 over the previous year (81.1% of the ratings were reaffirmed in 2000-01). In fact, it represents the highest stability in ratings achieved by CRISIL over the past seven years. The credit ratio or the ratio of upgrades to downgrades, however, reverted to a low of 0.11 after touching a high of 1.0 in 2000-01. This is comparable to the values observed during the 1997-2000 period.

The historical values of CRISIL's credit ratio and Modified Credit Ratio (defined as the ratio of (upgrades + reaffirmations) to (downgrades + reaffirmations)) have been analyzed in this study and measured against key macroeconomic indicators. CRISIL's rating actions exhibit a strong correlation with these indicators. The decline in the credit ratio in the past year reflects the changes in macroeconomic trends, such as the lowest growth rate in the index of industrial production (IIP) in the past eight years, moderate GDP growth rates and the low level of equity mobilized by corporates. In terms of ratings distribution, there was a further polarization in CRISIL's long-term ratings in 2001-02 as the number of AAA/AA and speculative ratings rose while the number of A/BBB ratings dipped. There was an overall reduction in the number of outstanding fixed deposit ratings across all rating categories. As in the previous year, a number of corporates moved away from the fixed deposit market due to both the availability of cheaper funds from the banking sector and the high servicing cost of fixed deposits.

In terms of rated debt volumes, CRISIL's AA and A ratings accounted for 36% of the total debt rated, a significantly higher fraction compared to the 14% figure of 2000-01. This indicates greater receptiveness for non-AAA rated issuers, which can be attributed to the excessive liquidity in the banking system and softer interest rate regime. This has also resulted in corporates preferring low-cost short-term debt and commercial paper programmes to fund working capital needs. Both the long-term and short-term debt markets witnessed higher amounts of debt being issued although the actual number of entities raising debt fell.

# **CRISIL** ratings continued to exhibit high stability

CRISIL ratings have displayed a greater stability in 2001-02 with a higher proportion of ratings remaining in the same category. CRISIL's long-term rating actions reveal that 209 ratings were reaffirmed, four were upgraded and 38 ratings were downgraded in 2001-02. Reaffirmed ratings accounted for 83.3% of the total rating actions compared to 81% in 2000-01. This is the highest stability displayed in the ratings in the past seven years. The list of CRISIL's long-term rating upgrades and downgrades in 2001-02 is enclosed in Appendix I.

Over the last few years, the composition of CRISIL's rating actions has been fairly similar to that of Standard and Poor's (S&P) in the global arena with the number of downgrades outnumbering upgrades. CRISIL's long-term ratings have, however, witnessed a greater number of rating changes compared to S&P's in the last few years (see table below). Yet, after seven years of high rating activity, the proportion of changes in CRISIL's long-term ratings portfolio has actually come down significantly to 14% of the outstanding ratings today. In contrast, there has been an increase in the proportion of changes in S&P's ratings over the past four years.

	Upgrades		Downgrades		Rating changes / Number ratings at beginning of year (%)		
	S & P	Crisil	S & P	Crisil	S & P	Crisil	
1994-95	73	15	134	4	7.2	9	
1995-96	123	26	160	15	8.5	16	
1996-97	156	18	120	47	7.8	18.7	
1997-98	150	14	172	95	8.3	28.8	
1998-99	136	10	291	126	9.6	33.8	
1999-00	124	13	335	82	9.3	27.8	
2000-01	132	30	411	30	10.5	17	
2001-02	133	4	569	38	13.3	14.2	

Source: S&P Ratings Performance 2001

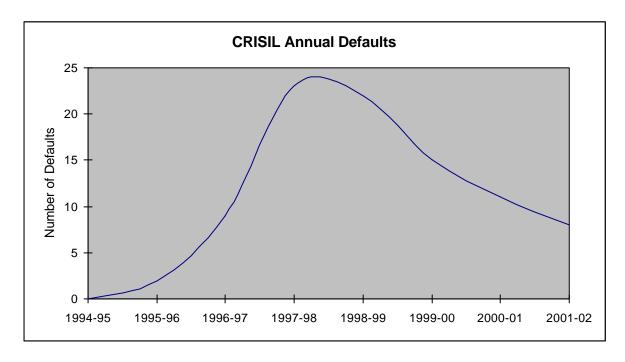
CRISIL's stability rates show a marked improvement in 2001-02 compared to the average one-year stability rates, especially in the A and AA categories. The stability in these categories was over 90 % in the last year, whereas their average stability over the past 10 years was 83 % for A category and 86 % for AA category. In addition, there is a high degree of correlation between CRISIL's ratings and average stability rates, that is the higher the rating, the higher the stability. The average stability rates are computed over the past 10 years of CRISIL's rating history and compared against S &P rates, based on the 20 years of historical data available for S&P. CRISIL's stability rates are comparable to S&P's rates for the A and above categories. In fact, CRISIL's AAA ratings have displayed higher average stability rates than those of S&P. For the lower ratings (BBB and below), however, CRISIL's stability rates are weaker compared to S&P's.

1-Year Stability	CRISIL	S & P	CRISIL 10-	S & P 20-Year
Rates	2001-02	2001-02	year average	average
AAA	94.0%	97.7%	95.3%	93.3%
AA	90.5%	90.2%	85.9%	91.6%
A	91.7%	90.7%	83.0%	91.8%
BBB	68.8%	90.5%	75.5%	89.5%
BB	71.4%	81.4%	58.7%	83.1%
В	40.0%	77.1%	52.2%	82.8%
С	66.7%	43.8%	60.5%	58.2%

Source: S & P Ratings Performance 2001

# **Abatement in Defaults**

The number of defaults in CRISIL's long-term ratings portfolio has reduced. Defaults have been on the decline since 1997-98, when their number reached a peak of 23. This is particularly evident in CRISIL's investment grade ratings. While the number of instruments defaulting from investment grade was 10 in 1997-98 and two in 2000-01, not a single investment grade rating defaulted in 2001-02. It is worth noting that the period of high defaults (1997-1999) coincided with poor economic conditions in the country and a high interest rate regime.



# **Category-wise Rating Actions**

Investment grade entities accounted for 30 downgrades or 15% of the investment grade portfolio in 2001-02. Four ratings were downgraded from the investment grade categories to speculative grades while the remaining 26 downgrades were within the investment grades. Also, eight downgrades took place within the speculative grades.

Moreover, the severity of the downgrades is much lower for the high-safety rating categories. Whereas the average downgrade severity was 1.0 notch for AAA-rated companies and 1.6 notches for AA-rated companies, the average downgrade severity was 2.9 notches for speculative grade entities. This establishes the fact that CRISIL's investment grade ratings have exhibited a high degree of resilience.

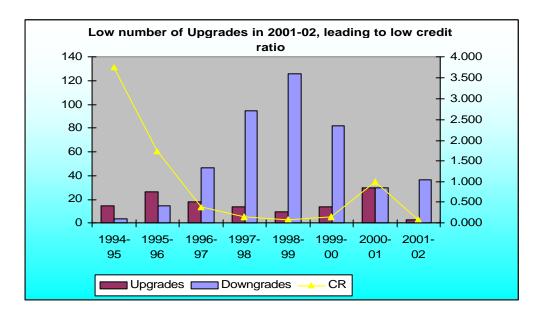
#### **Sector-wise rating actions**

The rating actions in 2001-02 were similar across the three main sectors, manufacturing, finance and infrastructure. There was no significant difference in the sector-specific credit ratios and stability. For example, manufacturing sector entities constituted around 77% of CRISIL's total portfolio of long-term ratings and 76% of rating actions (upgrades and downgrades) . The modified credit ratio was 0.85 in the manufacturing sector, 0.82 in the finance sector, 0.96 in the infrastructure sector and 0.86 for the overall long-term ratings portfolio.

All the sectors witnessed a fall in the number of upgrades. In the manufacturing sector, the number of upgrades and thereby, the credit ratio, was the lowest in eight years. Among manufacturing industries, auto-ancillaries, steel and automobiles, which had accounted for the highest number of downgrades in 2000-01, saw a further weakening in their position in 2001-02 with four downgrades in auto-ancillaries and three each in steel and automobiles.

#### Decline in Credit Ratio - an indicator of economic slowdown

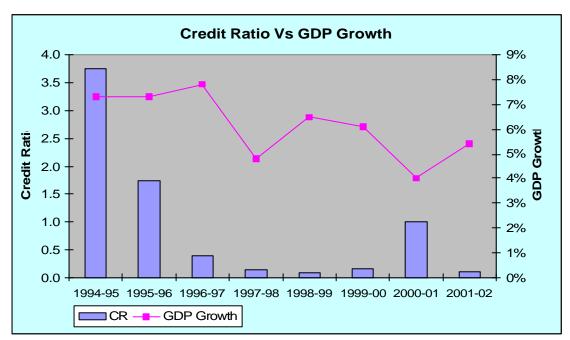
CRISIL's rating actions exhibit a strong correlation with macroeconomic indicators such as GDP & IIP growth rates, equity mobilized by Indian corporates and real interest rate levels. The rating performance is depicted by two parameters, the credit ratio (ratio of upgrades to downgrades) and the Modified Credit Ratio, which is defined as the ratio of (upgrades + reaffirmations) to (downgrades + reaffirmations). The Modified Credit Ratio minimizes the volatility in the credit ratio, when the number of upgrades and downgrades in the reference period is small compared to the quantum of re-affirmations. CRISIL's credit ratio, or the ratio of upgrades to downgrades, has declined from 1.0 in 2000-01 to 0.11 in 2001-02 while the Modified Credit Ratio has fallen from 1.0 to 0.88 in the same period.



## Credit Ratio Vs GDP growth

A significant degree of correlation has been observed between the GDP growth rate and the credit ratio in the last eight years. A marginal deviation was witnessed in 2000-01 when the GDP growth rate dipped significantly to 4%, but the credit ratio improved to 1.0. This was on account of both a lower number of downgrades (due to proactive rating actions of prior years) and a larger number of upgrades as a number of companies effected a financial and business restructuring.

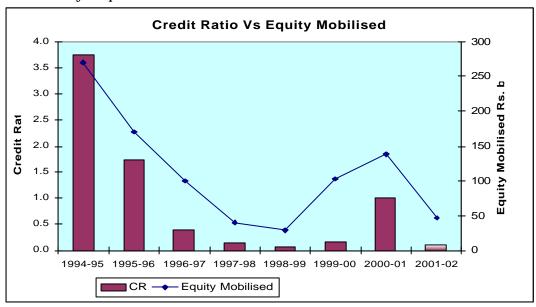
GDP grew at a moderate estimated rate of 5.7% in 2001-02, primarily on the back of strong agricultural growth driven by normal rainfall in 85% of the gross cropped area. Industrial growth, on the other hand, was weak and was hit further by the events of September 11. Broadly speaking, the last eight years can be divided into two periods: the post-1997 years characterized by moderate GDP growth and low credit ratios of around 0.1, preceded by a period of high GDP growth rates of 7-8% and credit ratios above 1.0



Source: CMIE Review of Indian economy

# **Credit Ratio versus Equity Mobilization:**

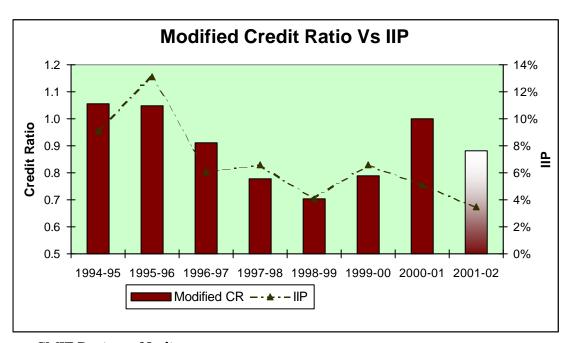
There is a strong correlation between the equity mobilized by Indian corporates and CRISIL's credit ratio over the last eight years (see chart). In other words, the higher the equity mobilized by corporates, the higher the credit ratio and vice versa. Indian companies mobilized Rs. 47 billion of equity in 2001-02, down from Rs. 139 billion in 2000-01. This abnormally low equity mobilization correlates with the sharp decline in credit ratio to 0.11 in this period. The credit ratio between 1997 and 1999 too was similarly low and was accompanied by equally low equity mobilization by corporates.



Source: CMIE Review of Indian economy

# Modified Credit Ratio Vs IIP Growth

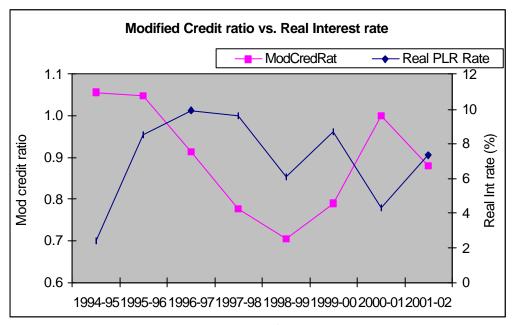
The Modified Credit Ratio has exhibited a high correlation with the IIP growth rate in the last eight years. In 1994-95 and 1995-96, the IIP grew at 9.5% and 13% respectively. The Modified Credit Ratio too was above 1.0 in that period. Subsequently, the IIP growth rate dropped to between 4% and 6% and the Modified Credit Ratio too followed a similar pattern, falling below 1.0. In 2001-02, the IIP growth rate has plunged to an eight-year low of 3.5% coinciding with a steep drop in the Modified Credit Ratio to 0.86..



Source: CMIE Review of Indian economy

#### Modified Credit Ratio Vs Real Interest Rate

The Modified Credit Ratio displays a near-perfect inverse correlation with the real interest rate, with the ratio falling in years when real interest rates (interest rates adjusted for inflation rates) were high. High interest outflows immediately weaken the credit quality of the rated entities due to lower profitability and decreased coverage. More than the absolute level of interest rates, real interest rates, which are not automatically offset by normal price increases, have a stronger impact on the credit quality of corporates. A high real interest rate also adversely impacts the companies' competitiveness in both the export market and against imports.



Source: Economic Survey 2001-02, Ministry of Finance, GOI

# **Trends in Ratings Distribution**

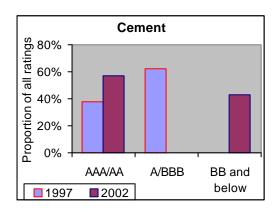
This section looks at movements in the distribution of CRISIL's ratings for long-term instruments and fixed deposits.

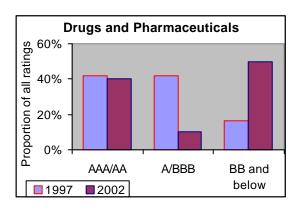
# Continuing polarization in long-term ratings

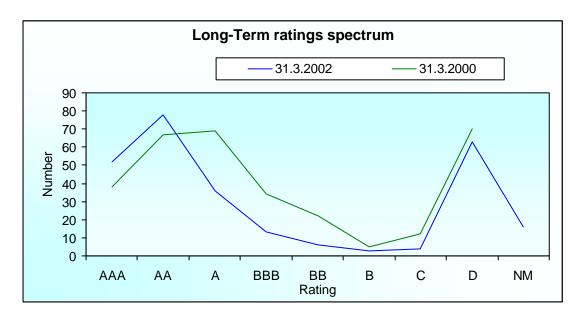
CRISIL's long-term ratings have tended to polarise over the past few years with the number of high safety investment grades (AA and AAA) increasing as the number of adequate and moderate safety ratings (A and BBB) have declined. This trend continued in 2001-02 too. The number of lower rated entities has continued to fall and the proportion of entities rated AA and AAA to all ratings has increased from 33% in March 2000 to 43% in March 2001 and further to 48% in March 2002. This increase is mainly on account of a high number of withdrawals in the A and BBB categories. A total of 23 ratings (or 36% of all ratings in the A and BBB categories) have been withdrawn in these categories in 2001-02.

As observed by CRISIL in past studies, the liberalization of the Indian economy has brought in several multinational companies besides significantly increasing competition levels across

almost all sectors of the economy. This has contributed to the sharp polarization in the long-term rating spectrum. Several industries have seen a shake-out with companies having strong parentage or group backing and a competitive business position becoming stronger while weaker players have been weeded out. This trend is exemplified by the cement and pharmaceuticals industries, wherein companies with moderate ratings (A/BBB) have deteriorated and/or consolidated with stronger entities whereas those with superior business and operational efficiency, favorable plant locations and strong parent support have exhibited better credit quality. The change in ratings distribution in these industries over the past five years is shown below.

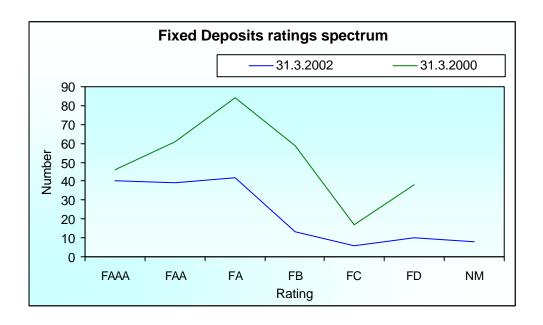






#### Fixed Deposit steadily losing to other debt instruments:

In the past, fixed deposit ratings too have polarised like long-term ratings. In 2001-02, however, there has been a decline in the number of rated entities across all rating categories. Except for the banking sector, fixed deposits have been losing prominence as an instrument of mobilising resources directly from the public. This is mainly due to the banks being able to offer wholesale funds at competitive interest rates in the falling interest rate regime.



#### Study on rated debt volumes

In this section, the trends in CRISIL rated debt is analyzed in terms of the number of companies rated and the amount of debt raised across rating categories.

# AA and A-rated entities gaining prominence:

In keeping with the trend last year, in 2001-02 too, the amount of debt raised by CRISIL's AA and A-rated entities accounted for a significantly larger share of the total new debt issued. This rose from 14.3% in 2000-01 to 35.8% in 2001-02. In fact, while the number of entities rated by CRISIL in this category has fallen from 108 to 96, the rated debt amount has increased (see table below).

The new debt raised by AAA-rated entities grew by about 13% in 2001-02 over the previous year while the debt raised by AA- and A rated entities increased significantly by 180%. This sharp increase is primarily because of the rating revision of Industrial Development Bank of India's (IDBI) - one of the largest borrowers in the country. IDBI's rating slipped from AAA to AA+ in 2001-02. In fact, if one were to exclude the Rs. 88430 million worth of debt raised by IDBI, the increase in debt volumes for the AA and A category is a much lower 25%.

		2000 - 01		2001 – 02			
Rating	Number of	Debt Volumes	Fraction of	Number of	Debt Volumes	Fraction of	
	issues	Rs. Million	total debt	issues	Rs. Crores	total debt	
AAA	49	342790	85.7%	42	290050	64.2%	
AA	55	56203	14.1%	48	158610	35.1%	
A	4	946	0.2%	6	3300	0.7%	
Total	108	399940		96	451960		

# <u>Trends in CRISIL rated short-term debt instruments:</u>

Commercial paper (CP) and short-term debt rated volumes have grown by more than 85% in 2001-02 over 2001-01. While there has been a marginal reduction in the number of companies raising CP/short-term debt, the rated volume per client has increased significantly from Rs. 540 million to Rs. 1160 million. Moreover, this growth in rated volume per client is not only evident in P1+ rated companies but also in lower ratings such as P1 and P2+. The growth in volumes can be attributed to the prevailing soft interest rate regime and excess liquidity in the banking system.

		2000 - 01		2001 - 02			
Rating	Number of	Debt Volumes	Fraction of	Number of	Debt Volumes	Fraction of	
	issues	Rs. Million	total debt	issues	Rs. Million	total debt	
P1+	116	69300	97.9%	102	128790	98.1%	
P1	12	1350	1.9%	8	2100	1.6%	
	2	135	0.2%	2	350	0.3%	
P2			0.0%	1	90	0.1%	
Total	130	70790		113	131330		

# Appendix I

# **CRISIL Rating Upgrades / Downgrades in 2001-02:**

	UPGRADES				
Sl No	Company	Industry	Sector	From	To
1	Dabur India Ltd	Diversified	Manufacturing	AA	AA+
2	Reliance Petroleum Ltd.	Oil & Refining	Infrastructure	AA	AA+
3	Tata SSL Ltd.	Steel & Steel Products	Manufacturing	A-	AA-
4	The Ahmedabad Electricity	Power	Infrastructure	pfA+	pfAA-
	Company Ltd.			1	1
	DOWNGRADES				
Sl No	Company	Industry	Sector	From	To
1	Apollo Tyres Ltd	Tyres	Manufacturing	AA-	A+
2	Automobile Corporation of Goa	Auto Ancillaries	Manufacturing	BB+	D
	Ltd.				
3	Ballarpur Industires Ltd	Paper & Paper Products	Manufacturing	A	A-
4	Bharat Gears Ltd.	Auto Ancillaries	Manufacturing	BBB+	C
5	Bharti Cellular Ltd	Telecom	Infrastructure	AA	A+
6	Birla Global Finance Limited	Finance	Finance	A	BBB+
7	BPL Ltd.	Consumer Durable	Manufacturing	AA-	A-
8	Coal India Ltd.	Mining	Infrastructure	AA	AA-
9	Coates of India Ltd.	Miscellaneous	Manufacturing	AA	AA-
10	E.I.D. Parry (India) Ltd	Diversified	Manufacturing	AA	AA-
11	Escorts Ltd	Automobiles - 3&4	Manufacturing	A+	A
		wheelers			
12	Forbes Gokak Ltd	Textile-Cotton	Manufacturing	AA-	A+
13	Ford Credit Kotak Mahindra Ltd	NBFC	Finance	AA	AA-
14	Hindustan Organic Chemicals Ltd	Chemicals-Organic	Manufacturing	C	D
15	Hyderabad Industries Ltd.	Diversified	Manufacturing	BBB-	В
16	India Pistons	Auto Ancillaries	Manufacturing	AA-	A+
17	Indian Organic Chemicals Ltd.	Chemicals-Organic	Manufacturing	В	
18	Industrial Development Bank Of	Financial Institutions	Finance	AAA	AA+
	India				
19	KDL Biotech Ltd	Drugs	Manufacturing	BB+	D
		&Pharmaceuticals			
20	La Farge India Ltd	Cement	Manufacturing	AA+	AA
21	Larsen & Toubro Ltd	Diversified	Manufacturing	AAA	AA+
22	Lok Housing & Construction Ltd.	Builders	Manufacturing	BB	D
23	Mahindra & Mahindra Financial	Finance	Finance	AA+	AA
	Services				
24	Mahindra & Mahindra Ltd	Automobiles - 3&4	Manufacturing	AA+	AA
		wheelers			
25	Max India Ltd	Diversified	Manufacturing	AA	A
26	Mukand Ltd	Steel & Steel Products	Manufacturing	BB	Г
27	National Fertilizers Ltd.	Fertilisers	Manufacturing	AA-	A+

28	Purolator India Ltd.	Auto Ancillaries	Manufacturing	A-	BBB+
29	Raasi Fertilizers Ltd.	Fertilisers	Manufacturing	С	D
30	Rajasthan Spinning and Weaving Mills Ltd	Textile-Cotton	Manufacturing	A	A-
31	Small Industries Development Bank of India (SIDBI)	Financial Institutions	Finance	AAA	AA+
32	Southern Iron and Steel Co Ltd.	Steel & Steel Products	Manufacturing	C	D
33	Steel Authority of India Ltd	Steel & Steel Products	Infrastructure	BBB	BB
34	Tata Engineering and Locomotive Company Ltd.	Automobiles - 3&4 wheelers	Manufacturing	AA	AA-
35	Tata Finance Ltd	NBFC	Finance	AA-	BBB-
36	United Phosphorous Ltd	Pesticides & Agrochemicals	Manufacturing	BBB	BB
37	Wockhardt Life Sciences Ltd	Chemicals-Speciality	Manufacturing	A+	A
38	Xerox Modicorp Ltd	Office Equipment	Manufacturing	AA-	A+