Chapter IV
4.1 Introduction

After having been raised the required amount of funds, the next most important function of financial management is the efficient allocation of these funds among different assets in such a manner to achieve maximum return on it. So, the investment decision is the second most important decision in the area of financial management. It relates to the investment of funds in fixed assets and in current assets. The investment decision relating to fixed assets is called capital Budgeting Decision. It plays a significant role in assisting most business firms to achieve their goals such as profitability, growth, stability, risk reduction etc.

4.2 Capital Budgeting Decision: An Overview

“Capital budgeting decision is the process of identifying, analyzing and selecting investment projects whose returns (cash flows) are expected to extend beyond one year.”24

Capital budgeting may be defined as, “The planning and selection of capital expenditure proposals.”25

Capital Budgeting Decision may be defined as, "The firm’s decision to invest its current funds most efficiently in long term activities in anticipation of an expected flow of future benefits over a series of years. The long-term activities are those activities which affect firm’s operations beyond the one year period."\textsuperscript{26} The firm’s capital budgeting will include addition, disposition, modifications and replacement of long term or fixed assets.

Capital budgeting decisions “Pertain to fixed/long-term assets which by definition refer to assets which are in operation and yield a return, over a period of time, usually exceeding one year. They therefore, involve current outlay or series of outlays of cash resources in return for an anticipated flow of future benefits.”\textsuperscript{27}

From the proceeding discussion, the following features may be deduced:

- It has potentially a large anticipated benefits
- It involves a relatively high degree of risk
- It involves a relatively long – time period between the initial outlay and the anticipated returns.

Capital budgeting is commonly referred to as fixed assets management. Fixed assets are those that are acquired for periods longer than one year, for continuous use in business, not for the purpose of resale. These assets are necessary for the manufacturing firms since production is not possible without them. They can also be quite often referred to economic resource as they provide the basis for firms earning power and value.

Fixed assets are also termed as the earning assets of the firm since they enable the firm to produce finished goods that can ultimately be sold for profit. So, proper combination of assets i.e., optimal assets mix must be maintained in a firm since it has the long - term impact on the earnings, dividends and share price value of the firm. Generally, the more fixed assets maintained by a firm, the more aggressive is its managerial philosophy and larger the inherent risk.

4.3. Fixed Assets Management of NRB Bearings Company Limited

The fixed assets management of NRB Bearings Company limited can be analyzed from the viewpoint of (i) Level of investment in fixed assets. (ii) Financing pattern of fixed assets. (iii) Utilisation of fixed assets and (iv) Adequacy of depreciation.
4.3.1. Level of Investment in Fixed Assets

The capital investment decision involves an advance commitment of a huge amount of funds for future benefits. Once a mistake is made, it cannot be easily rectified. Careful and serious planning is therefore required on the part of top management for understanding such decisions as they have a permanent impact on the vitality of the concern. It calls for a great deal of foresight ness on the part of management. The main aims of fixed assets management is to avoid over investment and under investment in fixed assets. An over-investment in fixed assets means unprofitable employment of capital which may lead to the payment of dividend out of capital. Under-investment, on the other hand is an indication that the firm has inadequate capacity to meet demand which leads to a loss of profitable business opportunity. Generally, fixed assets constitute fifty percentage of the investment in total assets of a concern. So an optimum level of investment in fixed should be made by the finance manager after considering several factors such as demand condition, nature and size of business etc. The analysis of the level of investment in fixed assets of NRB Bearings company Limited under study is as follows:
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</thead>
<tbody>
<tr>
<td><strong>Fixed Assets (Gross)</strong></td>
<td>5621.39</td>
<td>6358.54</td>
<td>7428.40</td>
<td>8780.62</td>
<td>10331.14</td>
<td>11109.54</td>
<td>12599.49</td>
<td>13083.39</td>
<td>14994.14</td>
<td>15950.30</td>
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<tr>
<td></td>
<td>(110.97)</td>
<td>(85.80)</td>
<td>(99.99)</td>
<td>(93.76)</td>
<td>(93.38)</td>
<td>(103.32)</td>
<td>(104.77)</td>
<td>(94.58)</td>
<td>(114.13)</td>
<td>(121.83)</td>
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<tr>
<td><strong>Less: Depreciation</strong></td>
<td>2702.17</td>
<td>3133.13</td>
<td>3547.66</td>
<td>4030.70</td>
<td>4657.22</td>
<td>5370.94</td>
<td>6175.22</td>
<td>7035.28</td>
<td>8323.06</td>
<td>9353.69</td>
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<td>(53.34)</td>
<td>(43.52)</td>
<td>(47.75)</td>
<td>(43.04)</td>
<td>(42.10)</td>
<td>(49.95)</td>
<td>(51.35)</td>
<td>(50.86)</td>
<td>(63.35)</td>
<td>(71.45)</td>
</tr>
<tr>
<td><strong>Fixed Assets (Net)</strong></td>
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<td>3225.41</td>
<td>3880.74</td>
<td>4749.92</td>
<td>5673.92</td>
<td>5738.60</td>
<td>6424.27</td>
<td>6048.11</td>
<td>6712.93</td>
<td>6596.61</td>
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<td></td>
<td>(57.63)</td>
<td>(43.52)</td>
<td>(52.23)</td>
<td>(50.72)</td>
<td>(51.29)</td>
<td>(53.37)</td>
<td>(53.42)</td>
<td>(43.72)</td>
<td>(51.09)</td>
<td>(50.39)</td>
</tr>
<tr>
<td><strong>Investments</strong></td>
<td>13.26</td>
<td>161.64</td>
<td>216.13</td>
<td>261.13</td>
<td>371.63</td>
<td>371.63</td>
<td>371.59</td>
<td>533.23</td>
<td>167.73</td>
<td>1167.73</td>
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<td></td>
<td>(0.26)</td>
<td>(2.18)</td>
<td>(2.90)</td>
<td>(2.31)</td>
<td>(3.36)</td>
<td>(3.46)</td>
<td>(3.09)</td>
<td>(3.85)</td>
<td>(1.28)</td>
<td>(8.92)</td>
</tr>
<tr>
<td><strong>Total fixed Assets</strong></td>
<td>2932.48</td>
<td>3387.05</td>
<td>4096.87</td>
<td>4966.05</td>
<td>6045.55</td>
<td>6110.23</td>
<td>6795.86</td>
<td>6581.34</td>
<td>6880.66</td>
<td>7764.34</td>
</tr>
<tr>
<td></td>
<td>(57.89)</td>
<td>(45.70)</td>
<td>(55.14)</td>
<td>(53.03)</td>
<td>(54.65)</td>
<td>(56.83)</td>
<td>(56.51)</td>
<td>(47.58)</td>
<td>(52.37)</td>
<td>(59.31)</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>5065.54</td>
<td>7410.74</td>
<td>7429.99</td>
<td>9365.34</td>
<td>11063.23</td>
<td>10752.36</td>
<td>12025.73</td>
<td>13833.07</td>
<td>13138.75</td>
<td>13092</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

Source: Compiled and computed from the Annual Reports of NRB Bearings Company Limited.
Table 4.1 portrays about the share of investment in fixed assets has been on a fluctuating trend over all these years, ranging from 1993-94 to 2002-03. The share of gross block of fixed assets in the total assets has been fluctuating between 85.80 per cent in 1994-95 and 121.83 per cent in 2002-03. It declined from 110.97 per cent to 85.80 per cent in 1994-95 and then jumped to 99.99 per cent in 1995-96. It again declined to 93.38 per cent in 1997-98. It again increased to 121.83 per cent in 2002-03 from 103.34 per cent in 1998-99 with exception of 2000-01. In that year it was 94.58 per cent.

The share of fixed assets (Net block) in the total fixed assets also has been fluctuating. It also declined from 57.63 per cent in 1993-94 to 43.52 per cent in 1994-95 and then jumped to 52.23 per cent in 1995-96. It again decreased to 50.72 per cent in 1996-97 and again increased to 53.42 per cent in 1999-2000. It again decreased to 43.72 per cent in 2000-2001 and then increased to 51.09 per cent in 2001-2002. Then it declined to 50.39 per cent in 2002-03.

The share of total fixed assets in the total assets has also been fluctuating between 45.70 per cent in 1994-95 and 59.31 per cent in 2002-2003. The investment component of fixed assets has been increasing from 0.26 per cent in 1993-94 to 8.92 per cent in
2002-2003. This is a positive sign regarding the investment policy of NRB Bearings Company Limited.

It is clear from the above analysis that the NRB Bearings company Limited has been maintaining a reasonable level of investment in fixed assets ranging from 50 per cent to 53 per cent in total assets, in most of the years under study.

The data presented in Table 4.1 have also been represented diagrammatically in Figure 4.1 and graphically in Figure 4.2.
FIGURE 4.2
GRAPH SHOWING FIXED ASSETS STRUCTURE
4.3.2. Financing pattern of Fixed Assets

Financing pattern of fixed assets here refers to how the fixed assets are financed i.e. Source of financing. Generally fixed assets are financed by the proprietor to a major extent as their stock in the firm is permanent. The funds provided by the owners should be not only adequate enough to finance fixed assets but also the working capital requirement of the concern. In case the funds provided by the owners are not enough, the long-term debt source may be used to finance fixed assets. However excessive reliance on creditors for financing fixed assets is not only a sign of weakness of the firm but also risk. In order to analyze the financing pattern of fixed assets of NRB Bearings Company Limited, the following ratios, are used as tools:

- Fixed Assets to Net worth Ratio and
- Fixed Assets to Long-term Funds Ratio

**Fixed Assets to Net worth Ratio**

This ratio expresses the relationship between fixed assets and Net worth. This ratio is a very useful device to know the extent to which the fixed assets are financed by the owners. Fixed asset here mean cost of acquisition of fixed assets deducted by the
From the above Table 4.2, it is clear that the fixed Assets to Net Work ratio of NRB Bearings company Limited varies from 1.51 in 1993-94 to 0.74 in 2002-03 with an average of 0.90. The ratio has been much below 1 in most of the years except in 1993-94 and 1994-95. In these years, the ratio has been above 1 i.e. 1.51 and 1.31 respectively. It reveals that there is a low-fixed assets to Net worth ratio as against the standard norm of 1:1 in most of the years under study. The average ratio is also below the standard. The main implication of this analysis is that there is margin of safety for long-term creditors since the funds provided by the owners are sufficient to finance fixed assets as well as a part of working capital requirements.

The data regarding Fixed Assets to Net worth ratio presented in Table 4.2 have also been represented diagrammatically in Figure 4.3 and graphically in Figure 4.4.
FIGURE 4.3
MULTIPLE BAR DIGRAM SHOWING FIXED ASSET TO NETWORTH RATIO
OF NRB BEARINGS COMPANY LIMITED
FIGURE 4.4
GRAPH SHOWING FIXED ASSET TO NETWORTH RATIO
OF NRB BEARINGS COMPANY LIMITED

YEAR

FIXED ASSET TO NETWORTH RATIO (IN NUMBER OF TIMES)
Fixed Assets to Long-term Funds Ratio

This ratio expresses the relationship between Fixed Assets and Long-term funds. This ratio is a useful device to assess whether the firm has sufficient funds to finance its fixed assets requirements. It is also helpful to know the extent of fixed assets financed by current liabilities due to lack of long-term funds. Fixed assets include net fixed assets and trade investments including shares in subsidiaries. It is computed as follows:

\[
\text{Fixed Assets to long-term funds ratio} = \frac{\text{Fixed Assets}}{\text{Long-term funds}}.
\]

If the ratio is less than 1, it implies that the long-term funds are enough to finance fixed assets as well as a part of its working capital requirements. Conversely, if the ratio is more than 1, it is an indication that the long-term funds are inadequate to finance the entire fixed assets and the remaining fixed assets are financed by the short-term creditors. Generally, the ratio of 0.65: 1 is considered an ideal one. Fixed assets to Long-term funds ratio of the units under study has been recorded in table 4.3.
### TABLE 4.3

**FIXED ASSETS TO LONG-TERM FUNDS RATIO OF NRB BEARINGS COMPANY LIMITED.**

**1993-94 TO 2002-03**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fixed Assets (Total) Rs. In Lakhs</th>
<th>Long-term funds Rs. In Lakhs</th>
<th>Fixed Assets to Long terms funds (in No. of times)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-94</td>
<td>2932.48</td>
<td>5073.51</td>
<td>0.58</td>
</tr>
<tr>
<td>1994-95</td>
<td>3387.05</td>
<td>5968.96</td>
<td>0.57</td>
</tr>
<tr>
<td>1995-96</td>
<td>4096.87</td>
<td>7530.63</td>
<td>0.54</td>
</tr>
<tr>
<td>1996-97</td>
<td>4966.05</td>
<td>9444.14</td>
<td>0.53</td>
</tr>
<tr>
<td>1997-98</td>
<td>6045.55</td>
<td>11118.34</td>
<td>0.54</td>
</tr>
<tr>
<td>1998-99</td>
<td>6110.28</td>
<td>10910.11</td>
<td>0.56</td>
</tr>
<tr>
<td>1999-00</td>
<td>6795.86</td>
<td>12124.04</td>
<td>0.56</td>
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<tr>
<td>2000-01</td>
<td>6581.34</td>
<td>13833.07</td>
<td>0.48</td>
</tr>
<tr>
<td>2001-02</td>
<td>6880.66</td>
<td>12185.16</td>
<td>0.56</td>
</tr>
<tr>
<td>2002-03</td>
<td>7764.34</td>
<td>12129.98</td>
<td>0.64</td>
</tr>
<tr>
<td><strong>X</strong></td>
<td><strong>—</strong></td>
<td><strong>—</strong></td>
<td><strong>0.56</strong></td>
</tr>
</tbody>
</table>

Source: Compiled and computed from the Annual Reports of NRB Bearings Company Limited.

*-Stands for Arithmetic mean.*
From the Table 4.3, it is clear that the fixed Assets to Long-term funds ratio fluctuates between 0.48 in 2000-2001 and 0.64 in 2002-03 with an average of 0.56. It decreased from 0.58 in 1993-94 to 0.53 in 1996-97. Then it increased from 0.53 in 1996-97 to 0.56 in 1999-2000. Then it again decreased to 0.48 in 2000-01. It again increased to 0.56 in 2001-02 and 0.64 in 2002-03. The ratio has been well below 1 throughout the period under study. It clearly indicates that long-term funds have been adequate enough to finance the fixed assets requirements of the concern.

The data regarding Fixed Assets to long-term funds ratio, presented in Table 4.3 have also been represented diagrammatically in figure 4.5 and graphically in Figure 4.6.
FIGURE 4.5
MULTIPLE BAR DIAGRAM SHOWING FIXED ASSETS TO LONG-TERM FUNDS RATIO
FIGURE 4.6
GRAPH SHOWING FIXED ASSET TO LONGTERM FUNDS RATIO
OF NRB BEARINGS COMPANY LIMITED
4.3.3. Utilization of Fixed Assets

The primary activity of any business is sale of its products. The sales depends on how efficiently the investment made in various assets are managed. Fixed assets should be managed efficiently since they are the earning assets of the firm. Otherwise, there will be idle capacity in the utilization of fixed assets which will lead to not only reduction of sales but also loss of profit. In order to judge the efficiency of management in the utilization of fixed assets of NRB Bearings Company Limited, fixed assets turnover ratio is used as an analytical tool.

**Fixed Assets Turnover Ratio**

Investment in fixed assets is made by the business concern solely for the purpose of generating sales. Fixed Assets turnover ratio is thus helpful to know what extent the investment in fixed assets contribute towards sales and how much funds are further required to invest in fixed assets to achieve the desired sales.

The main purpose of this ratio is to measure the efficiency in the employment of fixed assets. Fixed assets here mean fixed assets minus depreciation. This ratio is computed as:

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Net Fixed Assets}}$$

A high fixed assets turnover ratio is an indication of efficient utilization of fixed assets. A low fixed assets turnover ratio, on the
other hand, is a sign of inefficient utilization of fixed assets. However, if the ratio is very high, then it indicates that the firm is over-trading on its assets. The standard for this ratio is 5 times in a manufacturing industry.

Table 4.4 Exhibits, the fixed Assets turnover ratio of NRB Bearings Company Limited

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (Net) Rs. In Lakhs</th>
<th>Fixed Assets (Net) Rs. In lakhs</th>
<th>Fixed Assets Turn (In No. of times)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993-94</td>
<td>5068.29</td>
<td>2919.22</td>
<td>1.74</td>
</tr>
<tr>
<td>1994-95</td>
<td>7106.38</td>
<td>3225.41</td>
<td>2.20</td>
</tr>
<tr>
<td>1995-96</td>
<td>9290.04</td>
<td>3880.74</td>
<td>2.39</td>
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<td>1996-97</td>
<td>11510.42</td>
<td>4749.92</td>
<td>2.42</td>
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<tr>
<td>1997-98</td>
<td>10440.80</td>
<td>5673.92</td>
<td>1.84</td>
</tr>
<tr>
<td>1998-99</td>
<td>10069.56</td>
<td>5738.60</td>
<td>1.75</td>
</tr>
<tr>
<td>1999-00</td>
<td>12048.53</td>
<td>6424.27</td>
<td>1.88</td>
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<tr>
<td>2000-01</td>
<td>11706.68</td>
<td>6048.11</td>
<td>1.94</td>
</tr>
<tr>
<td>2001-02</td>
<td>12831.18</td>
<td>6712.93</td>
<td>1.91</td>
</tr>
<tr>
<td>2002-03</td>
<td>14546.57</td>
<td>6596.61</td>
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<td>( \bar{x} )</td>
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<td>( \bar{x} )</td>
<td>( \bar{x} )</td>
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</table>

Source: Compiled and computed from the Annual Reports of NRB Bearings Company Limited.

\( \bar{x} \) - Stands for Arithmetic mean.
From the Table 4.4, it is clear that the fixed Assets turnover ratio fluctuates between 1.74 in 1993-94 and 2.42 in 1996-97 with an average ratio of 2.03. It increased from 1.74 in 1993-94 to 2.42 in 1996-97. That it decreased from 2.42 in 1996-97 to 1.75 in 1998-99. It again increased to 1.94 in 2000-01 and it again declined to 1.91 in 2001-02. Then it again increased to 2.21 in 2002-2003. The ratio has been much below 5 times over all these years under study. The average ratio is also much below 5 times i.e. 2.03. It reveals that there is a low fixed assets turnover ratio as against the standard norm of 5:1. The main implication of this analysis are:

- The efficiency of management of NRB Bearings Company Limited in the utilization of fixed assets is very poor.
- There is presence of idle capacity in the production of bearings i.e. the company has an excessive investment in fixed assets in comparison to the volume of sales.

The data regarding Fixed Assets turnover ratio presented in Table 4.4 have also been graphically presented in Figure 4.7 and graphically in figure 4.8.
FIGURE 4.7
MULTIPLE BAR DIAGRAM SHOWING FIXED ASSETS TURNOVER RATIO
OF NRB BEARINGS COMPANY LIMITED
FIGURE 4.8
GRAPH SHOWING FIXED ASSET TURNOVER RATIO
OF NRB BEARINGS COMPANY LIMITED
4.3.4 Adequacy of Depreciation

Since the cost of fixed assets is nothing but the price paid for services of a future period" – It is necessary to spread its cost – over a number of years during which benefit of the assets is received. This process of spreading the cost of fixed assets is termed as "depreciation". The same view of depreciation is stated in IAS-4 dealing with the subject Depreciation as the allocation of depreciable amount of an asset over its estimated useful life. Depreciation, thus refers to periodic allocation of the acquisition cost of tangible long-term assets less salvage value (if any) over its estimated useful life in a systematic and rational manner. It is a process of allocation, not of valuation. From financial point of view, depreciation denotes the measures of contribution of fixed assets to circulating capital. It represents a measure of services of fixed assets consumed or utilized.

The committee on terminology of the American Institute of Accountants has defined depreciation accounting as "Depreciation accounting is a system of accounting which aims at distributing the cost of other basic value of tangible capital assets, less salvage (if any) over the useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. Depreciation for the year is the position of total change under such a system that is allocated to
the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences.

The financial executives may adopt either the straight line method or any of the accelerated methods for charging depreciation. The accelerated methods include (i) written down value method, (ii) sum of the years digit method and (iii) double declining method. The adequacy of depreciation fund at the time of replacement of an existing asset is the chief concern of the Finance Manager. According to the legal provision prescribed under the companies Act 1956 and income – tax Act 1961, the nature of business, financial reporting, effects on managerial decisions, inflation, technology and capital maintenance etc. are the various factors influencing the selection of depreciation method and the rate thereof.

The adequacy of depreciation can be conveniently measured on the historical cost basis. For this, the trends of depreciation and gross block are compared with each other. If both the trends move in the same direction, it can be inferred that adequate depreciation has been provided. If the trends of gross block is increasing while that of depreciation is decreasing it indicates that depreciation provided is not adequate.

Table 4.5 Exhibits the trend of depreciation and gross block of NRB Bearings Company Limited for the periods form 1993-94 to 2002-2003. The trends have been calculated by taking the figures of 1993-94 as a base year.
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<tbody>
<tr>
<td><strong>Gross Block</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>100</td>
<td>113.11</td>
<td>132.15</td>
<td>156.2</td>
<td>183.78</td>
<td>197.63</td>
<td>224.13</td>
<td>232.24</td>
<td>266.73</td>
<td>283.74</td>
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<td><strong>Depreciation</strong></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>100</td>
<td>115.95</td>
<td>131.29</td>
<td>149.17</td>
<td>172.35</td>
<td>198.76</td>
<td>228.53</td>
<td>260.36</td>
<td>308.01</td>
<td>346.15</td>
</tr>
</tbody>
</table>

Source: Compiled and computed from the Annual Reports of NRB bearings company Limited

Note: 1993-94 is assumed as a base year.
From the above table 4.5, it is shown that the trend of depreciation as well as Gross block moves in the same direction. So it can be inferred that adequate depreciation has been provided by the NRB Bearings Company Limited.

The data presented in 4.5 have also been represented diagrammatically in figure 4.9 and graphically in figure 4.10.
FIGURE 4.9
MULTIPLE BAR DIAGRAM SHOWING THE TREND OF GROSS BLOCK AND DEPRECIATION
OF NRB BEARINGS COMPANY LIMITED
FIGURE 4.10
GRAPH SHOWING THE TREND OF GROSS BLOCK AND DEPRECIATION