

# [Financial analysis on tata consultancy services essay](https://assignbuster.com/financial-analysis-on-tata-consultancy-services-essay/)

FINANCIAL ANALYSIS ON TATA CONSULTANCY SERVICES SUBMITTED TO PROF . D. V.

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44 10Accounting Policies…………………………………………………………….. 48 11References………………………………………………………………………. 55 1. ACKNOWLEDGEMENTS We would like to take this opportunity to express our gratitude and respect to Prof D V Ramana for all the efforts that he took to make the concepts clear to each and every one of us. Financial Accounting being a totally new subject to many of us, he made sure that we were getting the concepts right every now and then by way of repeated explanations, quizzes and so on.

We would like to thank him once again for his unprecedented dedication and commitment towards the course and the students which made it quite an easy ride for us. 2. EXECUTIVE SUMMARY The project report details the financial analysis done on India’s Largest Software Firm, Tata Consultancy Services. The environment and industry is studied and then the position and the policies of the company. The FSA is primarily done through various ratios which indicate the company’s liquidity, solvency, efficiency, profitability, market returns and the like. A DuPont Analysis is also carried out to estimate the returns on assets, capital employed etc.

An inter-company analysis has also been carried out in which the performance of TCS is compared with the other IT majors, Infosys and Wipro. The comparison is made on the basis of the various ratios that were discussed earlier. The significant accounting policies followed by TCS have also been listed in the report. We have also included the condensed financial statements for the past three years in the report 3.

ENVIRONMENT ANALYSIS FY 2006-07 witnessed a revalidation of the Indian Information Technology – Business Process Outsourcing (IT-BPO) growth story, driven by a maturing appreciation of India’s role and growing importance in global services trade. And this scenario is predicted to continue in the coming years too. We will try to take a look into the major environmental factors that has contributed to this phenomenon are listed belowIndia has successfully leveraged its fundamental advantages of abundant talent, a keen focus on quality and security, lower cost-structure coupled with an enabling business environment to achieve a marked lead in the global outsourcing arena. This is reflected in India’s dominant and growing share of the global pie.

Over FY2001-2006, India’s share in global sourcing has grown from 62 percent to 65 percent for IT and 39 percent to 45 percent for BPO. The visibly higher preference for India is driven by its unmatched superiority when measured across a range of parameters that determine the attractiveness of a sourcing location. Abundant talent: India’s young demographic profile is an inherent advantage. •Quality Education: The quality of education available in India and the technical expertise of Indian Engineers and the fluency in English is a major factor. •Sustained cost competitiveness: The significant and sustained cost advantage, attributed to the wide differential in wage-costs and productivity gains achieved by firms in sourcing from India, continues to be a compelling driver of decisions to source services from India. Quality orientation, superior process delivery and a keen emphasis on information-security •Quality business infrastructure: Rapid growth in the quality and scale of Grade A real estate (around 25 million sq ft of real estate space is being added per annum) and telecommunications infrastructure – the key elements of business infrastructure required for running an IT-BPO operation, have been instrumental in supporting the growth of the sector.

Enabling business policy and regulatory environment: The Indian government has encouraged this sector by providing incentives and non-financial assistance, and by creating enabling regulations. 4. IT INDUSTRY OVERVIEW The Indian software industry has grown from a mere US $ 150 million in 1991-92 to a staggering US $ 5. 7 billion (including over $4 billion worth of software exports) in 1999-2000.

No other Indian industry has performed so well against the global competition. The annual growth rate of India’s software exports has been consistently around 30% or more every year. According to a NASSCOM-McKinsey report, annual revenue projections for India’s IT industry in 2008 are US $ 87 billion and market openings are emerging across four broad sectors, IT services, software products, IT enabled services, and e-businesses thus creating a number of opportunities for Indian companies. In addition to the export market, all of these segments have a domestic market component as well.

Other key findings of this report are: •Software & Services will contribute over 7. 5 % of the overall GDP growth of India •IT Exports will account for 35% of the total exports from India •Potential for 2. million jobs in IT by 2008 •IT industry will attract Foreign Direct Investment (FDI) of U. S. $ 4-5 billion •Market capitalization of IT shares will be around U. S.

$ 225 billion The dynamic industrial policy declared in 1996, with comprehensive packages of incentives and concessions, has ensured a productive ground for various industries. The hardware and software industries have now brought about a revolution of sorts under these schemes. Various institutions and computer training centers have contributed to the large number of trained and talented professionals. Over the years, the Indian IT software and services industry has matured, become more refined and moved up the value chain in terms of solutions offered to customers. The customers, from all parts of the globe, have meanwhile continued to flock to India’s corporates for help with their software needs. Major corporations are continuing to rely on Indian software companies for both legacy and new technology solutions.

The wide span of the country’s expertise across myriad technologies and platforms has provided the Indian software engine with awesome power to deal with any kind of IT requirement. The enormous base of skilled manpower — India’s PhDs and computer science graduates — is the envy of virtually every country, and in fact a major draw for global customers. While the industry has been growing at above average growth rates, software development activity is not confined to a few cities in India. Software development hotspots, such as Bangalore, Hyderabad, Mumbai, Pune, Chennai, Calcutta, Delhi-Noida-Gurgaon belt, Vadodara, Bhubaneswar, Ahmedabad, Goa, Chandigarh, Trivandrum are all developing quickly.

They boast state-of-the-art software facilities and the presence of a large number of overseas vendors Indian software companies are increasingly providing sophisticated solutions for e-commerce, e-banking, CRM, SCM, telecom software, mobile internet, WAP, network integration, application development, robotics, embedded software, microelectronics design and software engineering among others. FY 2006-07 witnessed a revalidation of the Indian Information Technology – Business Process Outsourcing (IT-BPO) growth story, driven by a maturing appreciation of India’s role and growing importance in global services trade. Industry performance was marked by sustained double-digit revenue growth -The sector closed the year at record levels, with the revenue aggregate growing by nearly ten times over the past ten years -Positive market indicators include large unaddressed white-spaces and the unbundling of IT-BPO mega-deals with increasing shares of global delivery -Strong optimism of the industry to achieve its aspired target of USD 60 billion in exports by 2010 (Figure 1) Services exports, accounting for nearly two thirds of the total, are estimated to be growing at 32. 6 percent in FY2007. This beats the industry forecast of 27-30 percent, estimated earlier – at the beginning of the year (June 2006).

Strong fundamentals including a large base of skilled talent, demonstrated quality and service delivery expertise at a significant cost advantage and an enabling environment have ensured that India attracts a disproportionately larger share of the global demand for offshore IT-ITES – and continues to drive India’s export led growth. The top 40 publicly listed Indian firms have reported a top line year-on-year growth of nearly 35 percent, over the first half of the current fiscal. MNC owned captive units have been scaling up their operations steadily with the headcount estimated to be growing by about 25-30 percent this year. Today, India’s strong base of skilled software manpower is a beacon for software customers.

The advantages offered by this significant pool can never be over-emphasized. As of March 2001, India had over 410, 000 working software professionals. Out of a total of 122, 000 engineers trained each year, almost 75, 000 new software engineers are ready to join the industry on an annual basis. Others migrate overseas or join end-user organizations. Educational universities, as well as the prestigious Indian Institutes of Technology (IITs), are the principal sources of newly-qualified personnel.

In addition, thousands of other technical personnel are trained by private sector institutes. There have been a few set backs as well. The various incidents of security breach across various parts of the country was a serious threat to the offshoring model on which the software industry thrives. Such incidents lead to lack of confidence on part of the multi national clients who outsource strategic work to Indian firms which contains huge amount of sensitive data too.

Also the safety and security of people employed with IT-ITES firms are questionable even today. And recently the rupee appreciation has also been a se back for Indian IT majors. Maintaining the quality of service in the era of cut throat competition is a challenge that every Indian IT firm is experiencing. This leads to innovative, efficient and better methods of doing business which helps them move up the value chain and differentiate themselves.

Indian software companies have also been very proactive in accepting, embracing, and practicing state of the art methodologies and processes; in investing heavily in tools, technology, and infrastructure; in reducing time to market as well as cost; and in improving quality, productivity, and response time. India’s software and services industry has and will continue to remain in the driver’s seat of the country’s IT sector. India’s success in the software arena is attributed to the software industry’s knowledge and expertise in cutting edge technologies and skilled manpower base. Both these strengths are likely to contribute towards the industry’s future growth.

In fact, India’s prowess in emerging technologies is also helping the software and services industry obtain new customers, even in the face of a debilitating U. S. economy slowdown. There is only one way that the Indian software industry is headed and that is up. The coming years will only reiterate this trend.

5. COMPANY ANALYSIS Tata Consultancy Services Limited (TCS Limited) is one of the world’s largest providers of information technology, consulting, services and business-process outsourcing which commenced operations in 1968. As of 2007, it is Asia’s largest IT services firm with annualised revenues of over US $4 billion and has the largest number of employees among all the Indian IT companies with strength of over 95, 000. For fiscal year 2005-06, it posted a net profit of Rs. 3, 709 crores. TCS is part of one of Asia’s largest conglomerates and most respected groups, the Tata Group, which has interests in areas such as energy, telecommunications, financial services, manufacturing, chemicals, engineering and materials.

TCS is the first company to be rated at Level 5 maturity for both the CMMI and PCMM framework. It is also the first Indian company to be certified AS 9100: Rev B for design of airframe structures. TCS continues to invest in new technologies, processes, and people which can help its customers succeed. From generating novel concepts through TCS Innovation Labs and academic alliances, to drawing on the expertise of key partners, it keeps clients operating at the very edge of technological possibility. Whether TCS is envisioning a business advantage, engineering an IT solution, or executing an outsourcing strategy, it helps its customers experience certainty in their every day business. TCS reported 2006-07 global revenues of USD 4.

3 billion. Mission, Vision & Values Mission: To help customers achieve their business objectives by providing innovative, best-in-class consulting, IT solutions and services. Make it a joy for all stakeholders to work with us. Vision: To be among the global top 10 by 2010 Values: Integrity Leading Change Excellence Respect For the Individual Learning & sharing TCS has the largest network of delivery centers operating at the highest level of process maturity. Part of TCS’ Network Delivery Model, these delivery centers are a combination of infrastructure, processes, systems and people that help enterprises benefit from a flexible, responsive and agile IT infrastructure. In India, they have their delivery centres in Bangalore, Chennai, Pune, Kolkata, Lucknow, Hyderabad, Mumbai and Delhi Areas of business Services The following TCS services help customers optimise business processes and create resilient IT infrastructure, ensuring faster business results: •ConsultingTCS consulting services help enterprises transform the way of doing business by helping them to optimise business processes, align IT with business requirements, support IT operations, and design effective risk management strategies.

•IT services TCS provides system integration and testing solutions, and application development and management services that help companies make the most of their IT investments. •Business process outsourcing TCS works with enterprises worldwide, helping them focus on their core business while accelerating outsourced operations and ensuring round-the-clock service delivery. Infrastructure outsourcing The company partners with enterprises to make their IT infrastructure flexible, scalable, and secure, while maximising performance. •Engineering and industrial services Using the best technologies, processes, and competencies, TCS helps businesses to put into practice their strategies in product development, and management of assets and production.

TCS helps clients from various industries solve complex problems, mitigate risks, and become operationally excellent. Some of the industries it serves are: •Banking and financial services •Energy and utilities •Government •Healthcare and life sciences Hi technology •Insurance •Manufacturing •Retail •Telecom •Travel and hospitality The shareholding pattern of TCS as per March 2007 is given below. (Table I) BOARD OF DIRECTORS R N Tata (Chairman) S Ramadorai (CEO and Managing Director) Aman Mehta Naresh Chandra V Thyagarajan Clayton M Christensen Ron Sommer Laura M Cha FINANCIAL STATEMENTS The condensed Financial Statements for the past three years are given below. BALANCE SHEET 2006-072005-062004-05 Capital978. 60489.

30480. 10 Reserves79, 841. 3055, 992. 8033, 373. 60 LTL507. 40355.

001, 207. 40 CL25, 949. 0017, 206. 8012, 418.

60 Total107, 276. 3074, 043. 9047, 479. 70Fixed Assets22, 184. 6014, 497.

8010, 284. 40 Investments32, 520. 4019, 635. 2014, 044.

20 CA52, 571. 3039, 910. 9023, 151. 10 Total107, 276. 3074, 043. 9047, 479.

70 (Table II) INCOME STATEMENT 2006-072005-062004-05 Sales151, 565. 20112, 937. 6081, 228. 10 COGS61, 868. 5039, 995. 7017, 638.

30 Operating Expenses44, 521. 5039, 579. 7041, 031. 80 Depreciation3, 434. 102, 573. 801, 332.

20 PBIT41, 741. 1030, 788. 4021, 225. 80 Interest34. 3044. 90104.

00 PBT41, 706. 8030, 743. 5021, 121. 80 Tax4, 133. 903, 574. 802, 807.

60 PAT37, 572. 9027, 168. 7018, 314. 20 (Table III) CFS 2006-072005-062004-05 Opening CIH1, 711. 701, 207.

4022. 50 CFF-10, 753. 50-8, 823. 09, 533.

50 CFI-20, 764. 20-14, 649. 70-28, 138. 50 CFO35, 377. 4023, 977. 0019, 789.

90 Closing CIH5, 571. 401, 711. 701, 207. 40 Total Cash Generated3, 859. 70504. 301, 184.

90 (Table IV) 6. RATIO ANALYSIS 6. 1 LIQUIDITY RATIOS: Liquidity can be defined as the firm’s ability to meet short term liabilities. This is usually measured by a few ratios like Current ratio, Liquid Ratio, Cash Ratio, Debtor Days, Creditor Days, Inventory Days which are explained in detail below. The liquidity position of a firm tells us how it manages the short term assets. This can be determined by calculating the Working Capital of the firmWORKING CAPITAL Working capital = Current assets-Current Liabilities.

It measures the liquid assets a company has to build or expand its business. The number can be positive or negative depending upon the amount of debt the company has with respect to the assets. A positive Working Capital indicates that Current assets are financed partly by Long term funds including Capital, profits, Long term loans etc. It also indicates that the company has liquid assets to do its business. The Working capital of TCS for the past 3 years is given in the table below Year2006-072005-062004-05 Current assets52571.

3039910. 023151. 10 Current Liabilities25949. 9017206. 8012418. 60 Working capital26621.

4022704. 1010732. 50 (Table V) As can be seen, it indicates a positive Working capital and moreover the working capital has increased over the period. This is because the current assets have increased at a higher rate than the liabilities. This also means that Current assets are financed partly by Long term funds including Capital, profits, Long term loans etc.

A company with a negative Working capital may lack the necessary funds for growth. CURRENT RATIO Current Ratio is defined as the ratio of current assets to current liabilitiesCurrent Ratio = (Current Assets) / (Current Liabilities) This again is an indicator of the company’s ability to meet short term liabilities. A company with a ratio greater than 1 can be considered to have appreciable short term financial strength. On the other hand if the firm has a Current ratio less than 1 it might have problems meeting its short term liabilities. The Current ratio of TCS for the past 3 years is summarized in the table below. Year2006-072005-062004-05 Current assets52571.

3039910. 9023151. 10 Current Liabilities25949. 9017206.

8012418. 60 Current ratio2. 022. 321. 86 Table VI) The CR of the firm over the period has been nearly 2, which implies that the current assets are twice that of the current liabilities.

This indicates the company’s strong ability to meet its short term obligations. Another fact to be noted is that this ratio has improved in 2005-06 but has reduced slightly in 2006-07. This can be attributed to the fact that current assets have increased at a higher rate than the liabilities in the year 2005-06 but not in 2006-07 In spite of being a good indicator of a company’s short term financial strength, the CR ratio has a few limitations. CR gives more emphasis to the quantity of CA not to the quality of the same. To get around this problem, we consider the Liquid ratio and the Cash ratio.

LIQUID RATIO Liquid ratio is defined as the ratio of current assets less stock to current liabilities. This takes into consideration the problem of “ Window Dressing” that occurs when CR is calculated. Hence this takes into account the proportion of current assets that consists of cash and debtors alone since the value of stock can be manipulated by changing the methods of calculating Cost Of Goods sold (COGS) like LIFO, FIFO etc. Liquid ratio is called Quick ratioHence Liquid ratio = (Current assets-Stock) / Current Liabilities CASH RATIO To further refine the liquidity position of a firm, the current assets in the form of cash alone is considered while calculating the Cash Ratio.

Hence Cash ratio = (Current assets-Stock-Debtors)/ Current Liabilities The values of liquid ratio & cash ratio of TCS for the past 3 years are given in the table below. Year2006-072005-062004-05 Liquid ratio2. 022. 311.

86 Cash ratio0. 210. 10. 1 (Table VII) As can be seen from the table the Liquid Ratio is almost the same as the Current ratio, which implies that the value of inventory is very minimal. Another fact to be noted is that this ratio has improved in 2005-06 but has reduced slightly in 2006-07. This can be attributed to the fact that current assets have increased at a higher rate than the liabilities in the year 2005-06 but not in 2006-07 On the other hand the Cash Ratio is much lesser than the current and liquid ratios.

This implies that debtors form a sizeable proportion of current assets. But there has been a decrease in the proportion of debtors because of which the Cash ratio has improved over the period. The various Liquidity ratios and their trends over the past 3 years have been summarized below with the help of a bar chart. (Figure 2) 6. 2 EFFICIENCY RATIOS Debtor Days Debtor days are equivalent to number of days of sales in the form of debtors. This is calculated as follows.

Debtor Days = Value of debtors/ average sales per day A higher value of debtor days is not very appreciable since it denotes that an appreciable amount of money is with the debtors and if a portion of it turns out to be bad debt, it is detrimental to the firm. Creditor DaysCreditor days are equivalent to the number of days of sales in the form of creditors. If the number of creditor days is less it means that the company pays back its creditors within a short period of time. Creditor Days = Value of creditors/ average sales per day Inventory Days Inventory days are equivalent to the number of days of sales in the form of inventory. It is calculated as: Inventory days = Stock / sales per day There is another method to calculate inventory days.

In this method, instead of sales per day, it is COGS per day that is used in the denominator to exclude the effect of profit from the ratio. Also since stock keeps changing everyday inventory days can also be calculated by taking average stock in the numerator. If the inventory days turn out to be very high it means that the firm has quite an amount of inventory with it which needs to be made use of or sold immediately for the betterment of the firm. The values for the above mentioned efficiency ratios for TCS are given in the table below.

2006-072005-062004-05 Inventory Days0. 290. 740. 00 Debtor Days100. 27111.

0092. 76 Creditor Days20. 9123. 8220. 03 (Table VIII)The inventory days is very small here and it has decreased over the period considered here.

This shows that the company lays emphasis on not keeping stock of inventory in any form & is successful in converting the same to revenue. This is typical of an industry in the services sector where the inventory level is very small when compared to another industry, say the manufacturing industry. The reduction in inventory days is a result of an increase in the sales and decrease in the inventory. The number of debtor days is quite high here although it has decreased over the period. This implies that the company has started implementing measures for the faster collection from debtors because of which the reduction in debtor days has been noticed.

Here although the value of debtors has gone up the sales has increased by a higher value because of which the debtor days has decreased. The number of creditor days is also quite high. From this it can be pointed out that the company does not pay its creditors quickly. The creditor days has also reduced over the period that is being considered here.

Thus we can say that the company has improved the credit paying mechanism or system. 6. SOLVENCY RATIOS Solvency ratios depict the ability of a firm to meet its long term liabilities. It also measures the financial soundness of a business.

It shows how the company finances its assets and how much is financed by debts. These ratios basically tell whether a company owns more than it owes. The higher the ratio, the more solvent the company. We will now take a look into the various solvency ratios & the same for TCS Debt to Equity Ratio The debt to equity ratio is calculated as the ratio of long term liabilities of the firm to the shareholder’s equity. DER = Long term liabilities/Equity CapitalThe following table gives the DER for TCS for the past 3 years. 2006-072005-062004-05 Long term liabilities507.

40355. 001207. 40 Equity80819. 956482.

133853. 7 DER0. 0062780. 0062850. 035665 (Table IX) As can be seen from the table, the company finances its assets mostly through equity.

The proportion of debt is much lesser. Over the period considered here, the debt has more or less decreased and the proportion of equity has increased considerably. The debt decreased by around 71% in the year 2005-06 when compared to the previous year which was responsible for lowering the DER considerably. The proportion of equity also increased. The increase in equity was due to the increase in reserves which increased to 7961 crores from 5560 crores. In 2006-07, there was no noticeable change in the DER when compared to the previous year.

The debt increased by 43% compared to last year. This can be attributed to an increase in bank overdrafts from 27 crores to 42 crores. Interest Coverage Ratio Interest Coverage Ratio (ICR) shows the relationship between PBIT and interest. It essentially shows the number of times the company’s profit is able to meet the interest. A high ICR shows how easily a company can pay off the interest on its outstanding debts. If the ratio is less (1 or below) the company’s ability to pay off its debts are considered questionable since it shows that the company is not generating sufficient revenues to pay off the interest on its debts.

ICR = PBIT / Interest The following table shows the ICR for TCS for the past three years. 2006-072005-062004-05 PBIT41741. 130788. 421225.

8 Interest34. 344. 9104 ICR1216. 94685. 711204. 09 (Table X) As depicted in the table the company has an impressing ICR ratio.

The Profit is way above the interest payable. This shows the strong financial position of the firm. The IT industry is at an all time boom presently because of which TCS has made huge profits in the past few years. Also the company has reduced the level of debt it has because of which the interest also has come down. All this resulted in the increase in ICR by almost 500% (496% to be exact) over the period of 3 years considered here.

Debt to Total Funds This is the ratio of the long term liabilities to the total funds employed in the business. This is calculated as follows Debt Ratio = Long Term Liabilities / Total Funds It shows how much of debt is present in the total funds employed by the firm. A high value of this ratio is not very desirable because that would essentially mean that the company is doing its business mostly with debt and hence is quite risky. Reserves to Total Funds This is the ratio of the reserves generated by the business to the total funds employed in the business by the firm. Its calculation is pretty straight-forward.

It is calculated as: Reserves ratio = Reserves / Total Funds A highly prospering firm would have a high ratio for this since it would definitely employ a part of the reserves generated in the business again. The following table shows the Debt ratio & Reserves ratio for TCS for the ast 3 years. 2006-072005-062004-05 Long term liabilities507. 41355. 231207. 42 Reserves79841.

3055992. 8133373. 62 Total Funds107276. 3174043.

9347479. 72 Debt to TF0. 004730. 0047940. 02543 Reserves to TF0. 7442590.

7562110. 702903 (Table XI) From the table given here it is evident that the debts of the firm accounts to only a minor portion of the total assets while the reserves account for around 70-75% of the total funds employed. As pointed out earlier this is essentially due to the boom in the IT industry and TCS being one of the key players is accumulating huge amount of profit every year. Thus the contribution of reserves to the total funds has increased over the years. Also the debt has decreased over the period considered. Hence the proportion of debt in the total funds has decreased although slightly.

This is because the total funds have increased at a rate which is much higher than the percentage decrease in debt. 6. 4 PROFITABILITY: Profitability of a firm is defined as the ability to make profit out of its resources available. Profit is generally defined as excess of income or revenue over the expenses. Profit is always is determined for a particular period.

Such period is called accounting period or reporting period. So profit is calculated for a year or for a quarter. Profit calculation is always based on the Generally Accepted Accounting Principles (GAPP) assumptions. Some of the important assumptions are as follows: •Accrual: Transactions should be recorded independent of actual payment or receipts. •Matching: Profit should be determining by deducting the corresponding expenses.

Expenses should be charged for the period of the benefit. Profitability Ratios: Profitability Ratios show how successful a company is in terms of generating returns or profits on the Investment that it has made in the business i. . the Profitability ratios speak about the profitability of the company. The higher these ratios the better it is for the company. OPERATING PROFIT RATIOS: PBIT to Sales: It measures the Operating profit margin i.

e. the earnings before interest and tax and it is calculated as Profit before Interest and Tax (PBIT) / Net Sales x 100 % Year2006-072005-062004-05 PBIT(million)41, 741. 130, 788. 421, 225. 8 sales(million)151, 565. 2112, 937.

681, 228. 1 PBIT to sales% (Operating Profit Margin)27. 5427. 2626.

13 (Table XII) PAT to Sales It is also called the NET PROFIT MARGINE RATIO. It reflects the earnings after interest and tax and calculated as Profit after Tax (PAT) / Net Sales x 100 % Year2006-072005-062004-05 PAT(million)37, 572. 927, 168. 718, 314.

2 sales(million)151, 565. 2112, 937. 681, 228. 1 PAT to sales%(Net Profit Margin Ratio)24. 7924. 0622.

55 (Table XIII) Operating Expenses to Sales This ratio represents the percentage of operating expenses the company has incurred to make the business and it is expressed as Operating expenses/sales\*100% Year2006-072005-062004-05 Operating Exp(million)44, 521. 539, 579. 741, 031. 8 sales(million)151, 565. 112, 937.

681, 228. 1 Operating Expenses to sales29. 3735. 0450. 51 (Table XIV) The operating Expenses to sale ratio has been reduced considerably over the years. The main reason for this is due to the fact that the sale has increased over the years but the operating expenses has been kept almost constant.

It is a good sign for the company. (Figure 3) (Figure 4) IMPLICATIONS (for the year ended 2007) TCS makes a profit of 27. 54 paisa on every Re. 1 of Sale before Interest and Taxes It ultimately makes 24. 79 paisa on every Re.

1 of Sale after Interest and Taxes. It is visible that Tata Consultancy Services has been able to increase its Operating Profit margin constantly over the years. We can see that the operating margin has increased considerable in the last year. This is mainly due to the fact that the Sales have increased by almost 34. 20% in 2006-07 over the last year.

Moreover the company s operating expenses have remained almost constant during the years. The efficiency has certainly increased over the last accounting years mainly owing to constant operating expenses and reduced interest burden. The Net Profit Margin has also increased from 24. 06 % in 2005-06 to 24. 9% in 2006-07.

The increase is not so prominent as sales because of a 15. 64% increase in tax. The increase in not that much prominent but the most important thing is that the company has maintained and increased its profitability. Profit Generating Ability: PGA shows the ability of the company to use the resources to generate income to meet the expenses and leave some return for the investors: loan givers and capital givers. PGA, therefore, shows the relationship between return and total assets or capital employed.

Following ratios are useful indicators of profit generating ability a company: •Return on Total Assets (ROTA) Return on Capital Employed (ROCE) Return on Total Assets (ROTA) ratio It tells us how well management is performing on all the firm’s resources. However, it does not tell how well they are performing for the stockholders. The ROTA of a company determines its ability to utilize the Assets employed in the company efficiently and effectively to earn a good return. The ratio measures the percentage of profits earned per Rupee of Asset and thus is a measure of efficiency of the company in generating profits on its Assets. It is calculated as — Profit before Interest and Tax (PBIT) / Total Assets x 100 % 006-072005-062004-05 PBIT41, 741. 130, 788.

421, 225. 8 Total Aseets107, 276. 374, 043. 947, 479.

7 ROTA(%)38. 9141. 5844. 70 (Table XV) Return on Capital Employed (ROCE) ratio This ratio explains the overall utilization of funds by a business enterprise. It says how much profits we earn from the amount invested by the Shareholders.

Capital Employed means the long-term funds employed in the business and includes the shareholder s fund, debentures and long-term loans. Profit before Interest and Tax is considered for computation of this ratio to make numerator and denominator consistent. It is calculated as — Profit before Interest and Tax (PBIT) / Capital Employed x 100 % Where, Capital Employed = Owner s Fund (Share Capital plus Reserves & Surplus) + Long-term Debt 2006-072005-062004-05 PBIT41, 741. 130, 788.

421, 225. 8 Capital Employed81, 327. 3056, 837. 1035, 061. 10 ROCE(%)51.

3254. 1660. 54 (Table XVI) Profit Distributing Ability: As the name suggests profit distributing ability shows the money that a company generates which can be distributed among the equity shareholders. A company may be having consistent positive PBIT, but due to high leverage it may not be in a position to distribute anything among the shareholders. Money available for distribution among the shareholders is the profit after meeting all expenses including the interest and statutory payments like taxes. Following ratios help in understanding the profit distributing ability of a company.

•Return on Networth (RONW) •Earning Per Share (EPS) •Dividend Per share (DPS) The Return on Net worth ratio states how much profit a company earned in comparison to total amount of shareholders equity on the balance sheet of the company. It is calculated as— PAT/Net Worth x 100% 2006-072005-062004-05 PAT37, 572. 927, 168. 718, 314. 2 Net Worth80, 819. 9056, 482.

1033, 853. 70 RONW(%)46. 4948. 1054. 10 (Table XVII) Earnings per Share (EPS): Earnings per share (EPS) are the earnings returned on the initial investment amount.

It is calculated as follows: EPS = (PAT – Preference Dividends) /Number of Equity shares In case of TCS there is no preference share present. So EPS will be calculated as—– EPS= PAT/Number of Equity shares yearMar’07Mar’06Mar’05 PAT(million)37, 572. 927, 168. 718, 314. No of Shares978, 610, 498480, 114, 809480, 114, 809 EPS(in Rs)38. 3955.

5238. 14 (Table XVIII) Dividend per Share (DPS): Mar’07Mar’06Mar’05 Dividend per share 11. 513. 511.

5 Both Earning per share and Dividend per Share have increased from accounting period 2004-05 to 2005-06. It is because of the fact that the profit after tax has increased from 2004-05 to 2005-06 by 8, 854. 50 million with the number of Equity shares remaining fixed. Both EPS and DPS has decreased in 2006-07 although an increase of 10, 404.

20 million in PAT has taken place in the Year. It is because of the issue of 1: 1 share dividend taken place at the beginning of the accounting year 2006-07. (Figure 5) CFO to PAT ratio: This ratio gives an idea about how much of the profit generated in an accounting period is contributed by the Operating decisions taken. 2006-072005-062004-05 CFO35, 377. 4023, 977.

0019, 789. 90 PAT37, 572. 9027, 168. 7018, 314. 20 CF0 TO PAT0.

940. 881. 08 (Table XIX) IMPLICATIONS FROM RATE OF RETURNS: All the rate of returns namely Return on Net worth (ROTA), Return on Capital Employed (ROCE) and Return on Total Assets (ROTA) has been reducing during the years. Though the operating profit has been increased over the years but due to the presence of huge amount of retained profit, the Net worth, Capital employed as well as Total assets has been increased over the years. It indicates some amount of inability in investing the Net worth available with the company. Yet a RONW of 46. 49% is a quite exciting figure for investors and share holders. 6. 5 Market Based Returns Price to Earning Ratio: Price to Earning ratio (PER) gives an idea about the relation between market value of Equity shares and the Earning per Share. PER= Market Value of share/Earning per Share Mar-07Mar-06Mar-05 Market Value1, 231. 201, 218. 601, 702. 45 EPS(in Rs)38. 3955. 5238. 14 PER32. 0721. 9544. 63 (Table XX) Market Capitalization: Market capitalization is the number of outstanding shares multiplied by the market value of the share. For the year 2007: No of outstanding shares = 51, 839, 264 (Assumption made: The number of shares mentioned here include only the ones with the Indian public) Market value of the share = Rs 1, 231. 20 Hence market capitalization = Rs 63, 824. 50 million For the year 2006: No of outstanding shares = 23, 504, 322Market value of the share = 1, 218. 60 Market Capitalization = Rs 28, 642. 37 million For the year 2005: No of outstanding shares = 28, 089, 355 Market value of the share = 1, 702. 45 Market Capitalization = Rs 47, 820. 72 million 2006-072005-062004-05 No of outstanding shares51, 839, 26423, 504, 32228, 089, 355 Market value1, 231. 201, 218. 601, 702. 45 Market capitalization63, 824. 5028, 642. 3747, 820. 72 (Table XXI) Implication: The market capitalization has decreased from 2004-05 to 2005-06 due to reduction in market value and also due to decrease in the no of outstanding shares. As a result of issue of bonus shares on March 31, 2006 , the number of outstanding shares in market has increased from 23, 504, 322 to 51, 839, 264. As a result the book value as well as the market value has fallen. Still the market capitalization has increased in 2006-07 from 2005-06. Market Cap to NW: Market capitalization to Net worth ratio gives an idea about the current position of the company. 2006-072005-062004-05 Market capitalization63, 824. 5028, 642. 3747, 820. 72 Net Worth80, 819. 9056, 482. 1033, 853. 70 Ratio (%)78. 9750. 71141. 25 (Table XXII)The market capitalization to networth has reduced from 141. 25% to around 50. 71% in 2005-06. It is mainly due to increased business TCS has produced during the year. As a result the reserves and surpluses has been increased during the year. At the same time the outstanding shares has reduced. But with fresh issue of bonus shares during the accounting year 2006-07 the market capitalization has again increased raising the ratio to 78. 97%. 7. DuPont Analysis An expression that breaks return on net worth (RoNW) down into three parts: profit margin, Total Asset turnover and financial leverage. The Du Pont identity tells us that RoNW is affected by three things: -Operating efficiency (as measured by profit margin) -Asset use efficiency (as measured by total asset turnover) -Financial leverage (as measured by the equity multiplier) RoNW = Profit Margin (Profit/Sales) \* Total Asset Turnover (Sales/Assets) \* Equity Multiplier (Assets/Equity) The DuPont ratios of TCS for the last three years are shown in the table below. 2004-05 2005-06 2006-07 PAT18314. 227168. 737572. 9 SALES81228. 1112937. 6151565. 2 PAT/SALES0. 2254660. 2405640. 247899 (Table XXIII) 004-05 2005-06 2006-07 SALES81228. 1112937. 6151565. 2 TOTAL ASSETS47479. 774043. 9107276. 3 SALES/TOTAL ASSETS1. 7107961. 5252791. 412849 (Table XXIV) 2004-05 2005-06 2006-07 TOTAL ASSETS47479. 774043. 9107276. 3 NETWORTH33853. 756482. 180819. 9 TOTAL ASSETS/NETWORTH1. 4024971. 3109271. 32735 (Table XXV) RoNW = (PAT/SALES)\*(SALES/TOTAL ASSETS)\*(TOTAL ASSETS/NETWORTH) 2004-05 2005-06 2006-07 RoNW (in %)54. 098148. 101446. 4897 (Table XXVI) 2004-05 2005-06 2006-07 PAT1831. 422716. 873757. 29 NETWORTH3385. 375648. 18081. 99 PAT/NETWORTH0. 5409810. 4810140. 464897 (Table XXVII) RoNW FOR 2006-07= 0. 464897= 46. 4897% ANALYSIS The company went for expansion in the year 2006-07. Thats why there is increase in total assets from 2004-05 to 2006-07. Hence it has the effect of decreasing the RoNW for the subsequent years starting from 2004-05 to 2006-07 inspite of increase in sales, profit and networth. RoNW can be subdivided into Operating decision, Investment Decision and Financing Decision which can be equated as the following. Operating Decision= PAT/SALES Investment Decision= SALES/TA Financing Decision= TA/NW 004-052005-062006-07 OPERATING DECISION(PAT/SALES)0. 2254660. 2405640. 247899 INVESTMENT DECISION(SALES/TA)1. 7107961. 5252791. 412849 FINANCING DECISION(TA/NW)1. 4024971. 3109271. 32735 (Table XXVIII) SALES/TA can be further analysed as Sales/FA and Sales/CA 2004-052005-062006-07 Sales/FA7. 898186 7. 789982 6. 832001 Sales/CA3. 508607 2. 829743 2. 883041 (Table XXIX) We can see that the company is utilizing its fixed assets very efficiently which is evident by a high sales / FA ratio of 6. 83 as compared to using its current assets. Sales/CA consists of Sales/Debtors, Sales/Inventory and Sales/Cash 004-052005-062006-07 Sales/Debtors3. 942059 3. 47166 3. 52647 Sales/Inventory253. 8378 140. 0516 364. 3394 Sales/Cash68. 5527 223. 9492 39. 26865 (Table XXX) The sales/debtors ratio is very small. This is typical of every IT company where it has high margin because of the dollar inflow into the company. The company went for massive expansion in the year 2006-07. Hence there is dip in the value of the ratio sales/cash. ROCE (DuPont Ratios) 2004-05 2005-06 2006-07 PBIT/Sales(Profit Margin)0. 2613110. 2726140. 2754 Sales/TA(Asset Turnover)1. 7107961. 5252791. 412849TA/CE(Asset Leverage)1. 3541991. 3027391. 319069 PBIT/CE0. 6053950. 5416950. 513248 (Table XXXI) We can see the profit margin increases because of increase in revenue. The company got massive contracts from outsourcing which increased its revenue substantially. Profit margin consists of Depreciation/sales, General expenditure/sales, Cost of raw material/sales. 2004-052005-062006-07 Depreciation/sales0. 016401 0. 02279 0. 022658 General expenditure/sales0. 505143 0. 350456 0. 293745 Cost of raw material/salesNA0. 000778 0. 000569 (Table XXXII) We can see that depreciation/sales ratio increased in the years. It is because of the increase in the value of depreciation because of increased assets. General expenditure did not increase substantially with the increased sales because of the fixed cost remaining constant for increases sales. Hence the decrease in the value of the ratio between general expenditure/sales. We can see since TCS is a service industry cost of raw materials forms a very less amount of the overall expenditure, hence the small value of the ratio cost of raw material/sales. The RONW analysis is summarized in the DuPont Chart given below. (Figure 6) 8. Economic Value Analysis: Economic Value Added or EVA is an estimate of true economic profit after making corrective adjustments to GAAP accounting, including deducting the opportunity cost of equity capital. EVA can be measured as Net Operating Profit after Taxes (or NOPAT) less the money cost of capital. Money cost of capital refers to the amount of money rather than the proportional rate (cost of capital). The amortization of goodwill or capitalization of brand advertising and other similar adjustments are the translations that occur to Economic Profit to make it EVA. The EVA is a registered trademark by its developer, Stern Stewart & Co. EVA= NOPAT-(Cost of Capital \* Capital Employed) Cost of capital or Weighted average cost of capital (WACC) is the average cost of both equity capital and interest bearing debt. Cost of equity capital is the opportunity return from an investment with same risk as the company has. Cost of equity is usually defined with Capital asset pricing model (CAPM). The estimation of cost of debt is naturally more straightforward, since its cost is explicit. Cost of debt includes also the tax shield due to tax allowance on interest expenses. The idea behind EVA is that shareholders must earn a return that compensates the risk taken. In other words equity capital has to earn at least same return as similarly risky investments at equity markets. If that is not the case, then there is no real profit made and actually the company operates at a loss from the viewpoint of shareholders. On the other hand if EVA is zero, this should be treated as a sufficient achievement because the shareholders have earned a return that compensates the risk. This approach – using average risk-adjusted market return as a minimum requirement – is justified since that average return is easily obtained from diversified long-term investments on stock markets. Average long-term stock market return reflects the average return that the public companies generate from their operations. EVA for TCS: Rm16% Rf7. 46% Beta2. 25 tax rate10% interest rate7% •Ke= Rf+Beta (Rm-Rf) = 7. 46+2. 25(16-7. 46) = 26. 68% •Kd= I\*(1-t)= 7\*(1-0. 1)= 6. 3% (Note: Rf has been taken from the RBI site and is the rate of return for Government Securities. Rm has been calculated as the percentage change in the sensex points for a period of 1 year, i. e. , from March’ 06 to March’07. ) •DER 2006-072005-062004-05 0. 63%0. 63%3. 57% •NOPAT 2006-072005-062004-05 PAT(in million)37, 572. 9027, 168. 7018, 314. 20LESS INT(in million)34. 344. 9104 ADD TAX BENEFIT(in million)3. 434. 4910. 4 NOPAT(in million)37, 542. 0327, 128. 2918, 220. 60 (Table XXXIII) •EVA Calculation NOPAT37, 542. 0327, 128. 2918, 220. 60 WaCC(Kd\*D/(D+E)+Ke\*E/(D+E))%26. 5526. 5125. 76 Capital Employed(NW+LTL)80, 819. 9056, 482. 1033, 853. 70 Capital Charged(CC)21, 459. 9914, 975. 308, 721. 13 EVA16, 082. 0412, 152. 999, 499. 47 (Table XXXIV) EVA of TCS is positive over the years and it has been improving gradually over the years. It is a very good sign for the investors that may be one of the reasons why the Market value to book value ratio is better than its competitors. It indicates a higher expectation among the share holders. A comparative figure for the MV/BV for TCS and its competitors is tabulated for verification. TCSINFOSYSWIPRO 2006-072005-062004-052006-072005-062004-052006-072005-062004-05 Market Value/Book Value Ratio13. 6810. 6324. 619. 328. 9415. 447. 2112. 976. 13 (Table XXXV) 9. INTER-COMPANY ANALYSIS Here we attempt to do a comparison of the ratios discussed above for TCS vis-a-vis other major players in the industry. The two other players taken for the analysis are Wipro & InfosysComparison of Liquidity Ratios: The comparison of the important liquidity ratios is given below. TCSINFOSYSWIPRO 2006-072005-062004-052006-072005-062004-052006-072005-062004-05 Current Ratio2. 032. 321. 864. 912. 732. 771. 671. 441. 57 Absolute Current Ratio0. 210. 100. 103. 021. 481. 100. 480. 280. 2 9 Working Capital Days79. 6487. 9272. 7382. 9797. 30103. 4598. 66109. 2283. 93 (Table XXXVI) The percentage of assets to that of liabilities is highest for Infosys, followed by TCS. An interesting fact to be noted here is that the CR of Infosys rose by almost 80% in the year 2006-07. This can be attributed to the fact that in this year when the current assets increased from 6049 to 8961 crores, the current liabilities decreased from 2217 to 1824 crores. The Working Capital Days is calculated as Inventory Days+ Debtor Days-Creditor Days It is a good measure of the operating efficiency of the firm. Smaller the value of the working capital days, higher the operating efficiency level. The average capital working days is least for TCS (80. 1) followed by Infosys (94. 57) and then Wipro (97. 27) Comparison of Solvency Ratios: The DER and ICR of the three companies are summarized in the table below. TCSWIPRO 006-072005-062004-052006-072005-062004-05 DER0. 0060. 0060. 0360. 040. 0120. 012 ICR1216. 942685. 71204. 094267. 032680. 4316. 557 (Table XXXVII) (Note: The details of Infosys is not given here because the firm doesn’t have any long term debt & hence no interest) The DER of the 2 firms indicates that TCS has a lower debt as a percentage of its equity. This is because the long term liabilities of WIPRO have more than doubled because of which DER has also increased by the same amount. But in the case of TCS the increase in debt is only around 40%. The ICR of TCS also seems to be in a better position that that of WIPRO. The Reserves of Wipro is higher than that of TCS over the period considered here. But the Long term liabilities of Wipro are much higher than that of TCS and hence it explains why ICR of Wipro is less than that of TCS. TCSWIPRO 2006-072005-062004-052006-072005-062004-05 Reserves7, 984, 1. 35, 599, 2. 83, 337, 3. 619, 248, 1626085, 117, 7. 44 LTL507. 4355. 121207. 423827758620. 92 (Table XXXVIII) The above mentioned details can be seen in the table given above. Operating Profit Ratios PBIT to Sale ratio TCSINFOSYSWIPRO 2006-072005-062004-052006-072005-062004-052006-072005-062004-05 PBIT/Sales (%)27. 5427. 2626. 1330. 5629. 731. 721. 6122. 0824. 2 (Table XXXIX) A Comparison of expenses TCSINFOSYSWIPRO 2006-072005-062004-052006-072005-062004-052006-072005-062004-05 Opex /sales29. 37%35. 05%50. 51%12. 17%12. 56%12. 51%11. 36%11. 37%11. 14% COGS/sales40. 82%35. 41%21. 71%53. 80%53. 28%51. 98%66. 83%66. 28%65. 33% Depr/sales2. 27%2. 28%1. 64%3. 47%4. 46%3. 81%0. 00%0. 00%0. 00% (Table XXXX) From the PBIT to SALES Ratio it is clear that the Operating profit margin for TCS is slightly lower than that of INFOSYS. The main reason for this is the higher Operating expenses per sales in case of TCS in comparison to INFOSYS. In the accounting year 2006-07 the operating expenses is 29. 37% of sales for TCS where it’s only 12. 17% in case of INFOSYS. As a result, though the COGS for TCS (40. 82%) is lower than that of INFOSYS (53. 80%), PBIT is coming less in case of TCS. When comparing with WIPRO, though the operating expenses is higher for TCS, due to significant lower COGS to sales percentage, the PBIT/Sales ratio for TCS is coming higher than WIPRO. On the basis of EPS: TCSINFOSYSWIPRO 2006-072005-062004-052006-072005-062004-052006-072005-062004-05 Earning per Share38. 3955. 5338. 1567. 9488. 6870. 9320. 4114. 521. 48 Table XXXXI) EPS gives an Idea about how efficiently the company is utilizing the share holders’ money. Comparing the values of EPS over the years it’s evident that TCS is less efficient in utilizing the owners’ fund in comparison to INFOSYS but it’s more efficient in comparison to WIPRO in this aspect. Comparison of ROCE, RONW & ROTA The ROCE, RONW and ROTA figures for the 3 companies are given in the following table. TCSInfosysWipro 2006-072005-062004-052006-072005-062004-052006-072005-062004-05 ROTA(%)38. 91%41. 58%44. 70%32. 04%30. 07%34. 01%23. 49%24. 42%24. 64% ROCE(%)51. 32%54. 16%60. 54%37. 31%39. 2%42. 81%34. 70%36. 34%33. 51% RONW(%)46. 49%48. 10%54. 10%34. 13%35. 39%36. 57%30. 51%31. 11%28. 42% (Table XXXXII) As can be seen from the table all the ratios are higher for TCS. In case of ROTA, the PBIT of TCS & Infosys is more or less the same, though that of Wipro is considerably lesser than these two. ROTA is higher for TCS because the total assets held by the firm is lesser when compared to Infosys. Same is the case with ROCE too. The capital employed in the case of TCS is lesser than its competitors because of which the ROCE value is higher for the firm. In case of RONW, although there is not much difference between the PAT values of TCS and Infosys, the networth of the former is less than the latter which explains the higher RONW. As we have seen, since the profit generating ability (ROCE, ROTA) and profit distributing ability (RONW) is higher for TCS than its competitors, it is a better place to invest. 10. ACCOUNTING POLICIES a) Basis of Preparation The financial statements are prepared under the historical cost convention and the requirements of the Companies Act, 1956. b) Use of estimatesThe preparation of financial statements requires the management of the Company to make estimates and assumptions that affect the reported balances of assets and liabilities and disclosures relating to the contingent liabilities as at the date of the financial statements and reported amounts of income and expenses during the year. Example of such estimates include provisions for doubtful debts, employee retirement benefit plans, provision for income taxes, accounting for contract costs expected to be incurred to complete software development and the useful lives of fixed assets. ) Fixed Assets Fixed Assets are stated at cost, less accumulated depreciation. Costs include all expenses incurred to bring the assets to its present location and condition. Exchange differences on translation of foreign currency loans obtained to purchase fixed assets from countries outside India are included in the cost of such assets. Fixed assets exclude computers and other assets individually costing Rs. 50, 000 or less which are not capitalised except when they are part of a larger capital investment programme. d) DepreciationDepreciation other than on freehold land and capital work-in-progress is charged so as to write-off the cost of assets, on the following basis: ? Leasehold Land and Buildings Straight line Lease period ? Freehold Buildings Written down value 5% ? Leasehold Improvements Straight line Lease period ? Plant and Machinery Straight line 33. 33% ? Computer Equipment Straight line 50% ? Motor Cars Written down value 25. 89% ? Office Equipment Written down value 13. 91% ? Electrical Installations Written down value 13. 91% ? Furniture and Fixtures Straight line 100% Intellectual Property / Distribution Rights Straight line 24 – 36 months e) Leases Lease arrangements where the risks and rewards incident to ownership of an asset substantially vest with the lessor, are recognised as operating leases. Lease rents under operating leases are recognised in the Profit and Loss account on a straight-line basis. f) Impairment At each balance sheet date, the Management reviews the carrying amounts of assets and goodwill included in each cash generating unit to determine whether there is any indication that those assets were impaired. If any such indication exists, the recoverable amount of the asset and goodwill is estimated in order to determine the extent of impairment loss. Recoverable amount is the higher of an asset’s net selling price and value in use. In assessing value in use, the estimated future cash flows expected from the continuing use of the asset and from its disposal are discounted to their present value using a pre-tax discount rate that reflects the current market assessments of time value of money and the risks specific to the asset. Reversal of impairment loss is recognised immediately as income in the profit and loss account. ) Investments Long-term investments are stated at cost, less provision for other than temporary diminution in value. Current investments comprising investments in mutual funds are stated at the lower of cost and fair value, determined on a portfolio basis. h) Employee benefits 1) Post-employment benefit plans Payments to defined contribution retirement benefit schemes are charged as an expense as they fall due. For defined benefit schemes, the cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at each balance sheet date. Actuarial gains and losses are recognised in full in the Profit and Loss account for the period in which they occur. Past service cost is recognised immediately to the extent that the benefits are already vested, and otherwise is amortised on a straight-line basis over the average period until the benefits become vested. The retirement benefit obligation recognised in the balance sheet represents the present value of the defined benefit obligation as adjusted for unrecognised past service cost, and as reduced by the fair value of scheme assets. Any asset resulting from this calculation is limited to past service cost, plus the present value of available refunds and reductions in future contributions to the scheme. 2) Short-term employee benefits The undiscounted amount of short-term employee benefits expected to be paid in exchange for the services rendered by employees is recognised during the period when the employee renders the service. These benefits include compensated absences such as paid annual leave, overseas social security contributions and performance incentives. i) Revenue recognitionRevenues from contracts priced on a time and materials basis are recognised when services are rendered and related costs are incurred. Revenues from turnkey contracts, which are generally time bound fixed price contracts, are recognised over the life of the contract using the proportionate completion method, with contract costs determining the degree of completion. Foreseeable losses on such contracts are recognised when probable. Revenues from the sale of equipment are recognised upon delivery, which is when title passes to the customer. Revenues from maintenance contracts are recognised pro-rata over the period of the contract. Revenues from Business Process Outsourcing (BPO) services are recognised on time and material, fixed price and unit priced contracts. Revenue on time and material, unit priced contracts is recognised as the related services are rendered. Revenue from fixed price contracts is recognised as per the proportionate completion method with contract cost determining the degree of completion. Dividends are recorded when the right to receive payment is established. Interest income is recognised on time proportion basis. ) Research and Development Research and Development expenditure is recognised in the profit and loss account when incurred. Fixed assets utilised for research and development are capitalised and depreciated in accordance with the depreciation rates. k) Taxation Current income tax expense comprises taxes on income from operations in India and in foreign jurisdictions. Income tax payable in India is determined in accordance with the provisions of the Income Tax Act, 1961. Tax expense relating to foreign operations is determined in accordance with tax laws applicable in countries where such operations are domiciled. Deferred tax expense or benefit is recognised on timing differences being the difference between taxable income and accounting income that originate in one period and are capable of reversal in one or more subsequent periods. Deferred tax assets and liabilities are measured using the tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date. In the event of unabsorbed depreciation and carry forward of losses, deferred tax assets are recognised only to the extent that there is virtual certainty that sufficient taxable income will be available to realise such assets. In other situations, deferred tax assets are recognised only to the extent that there is reasonable certainty that sufficient future taxable income will be available to realise these assets. Advance taxes and provisions for current income taxes are presented in the balance sheet after off-setting advance taxes paid and income tax provisions arising in the same tax jurisdiction. The Company offsets deferred tax assets and deferred tax liabilities relating to taxes on income levied by the same governing taxation laws. ) Foreign currency transactions Income and expenses in foreign currencies are converted at exchange rates prevailing on the date of the transaction. Foreign currency monetary assets and liabilities other than net investments in non-integral foreign operations are translated at the exchange rate prevailing on the balance sheet date. Exchange difference arising on a monetary item that, in substance, forms part of an enterprise’s net investments in a non-integral foreign operation are accumulated in a foreign currency translation reserve. Premium or discount on forward exchange contracts are amortized and recognised in the profit and loss account over the period of the contract. Forward exchange contracts outstanding at the balance sheet date are stated at fair values and any gains or losses are recognised in the profit and loss account. Exchange differences, other than on foreign currency loans to acquire fixed assets from countries outside India are recognised in the profit and loss account. m) Derivative instruments and hedge accountingThe Company uses foreign currency forward contracts to hedge its risks associated with foreign currency fluctuations relating to certain firm commitments and forecasted transactions. The Company designates these as cash flow hedges. The use of foreign currency forward contracts is governed by the Company’s policies approved by the board of directors, which provide written principles on the use of such financial derivatives consistent with the Company’s risk management strategy. The Company does not use derivative financial instruments for speculative purposes. Foreign currency forward contract derivative instruments are initially measured at fair value, and are remeasured at subsequent reporting dates. Changes in the fair value of these derivatives that are designated and effective as hedges of future cash flows are recognised directly in shareholders’ funds and the ineffective portion is recognised immediately in profit and loss account. Changes in the fair value of derivative financial instruments that do not qualify for hedge accounting are recognised in profit and loss account as they arise. Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. At that time for forecasted transactions, any cumulative gain or loss on the hedging instrument recognized in shareholder’s funds is retained there until the forecasted transaction occurs. If a hedged transaction is no longer expected to occur, the net cumulative gain or loss recognized in shareholders’ funds is transferred to profit and loss account for the year. ) Employee Stock Purchase Scheme In accordance with the Employee Stock Option Scheme and Employee Stock Purchase Scheme Guidelines, 1999 issued by the Securities and Exchange Board of India (“ SEBI”), the excess of market price one day prior to the date of issue of the shares over the price at which they are issued is recognized as employee compensation cost. o) Inventories Raw materials, sub-assemblies and components are carried at lower of cost and net realizable value. Cost is determined on a weighted average basis. Purc