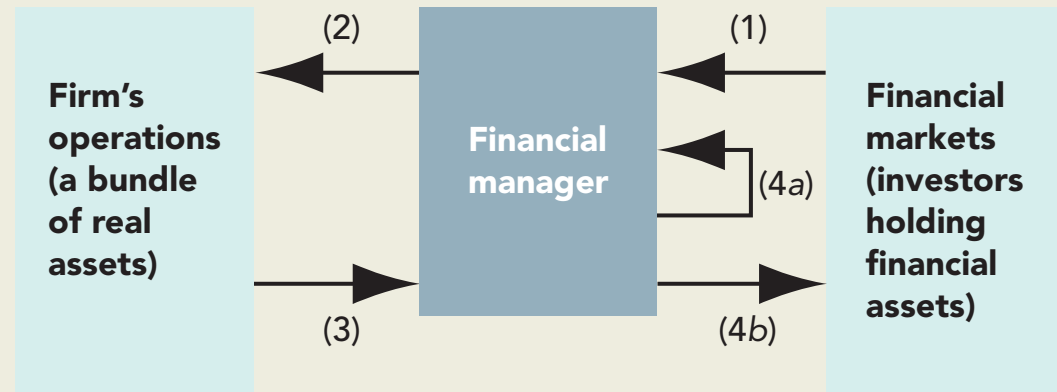


# Strategic Analysis of Financial Statements

# Challenges of a Financial Manager

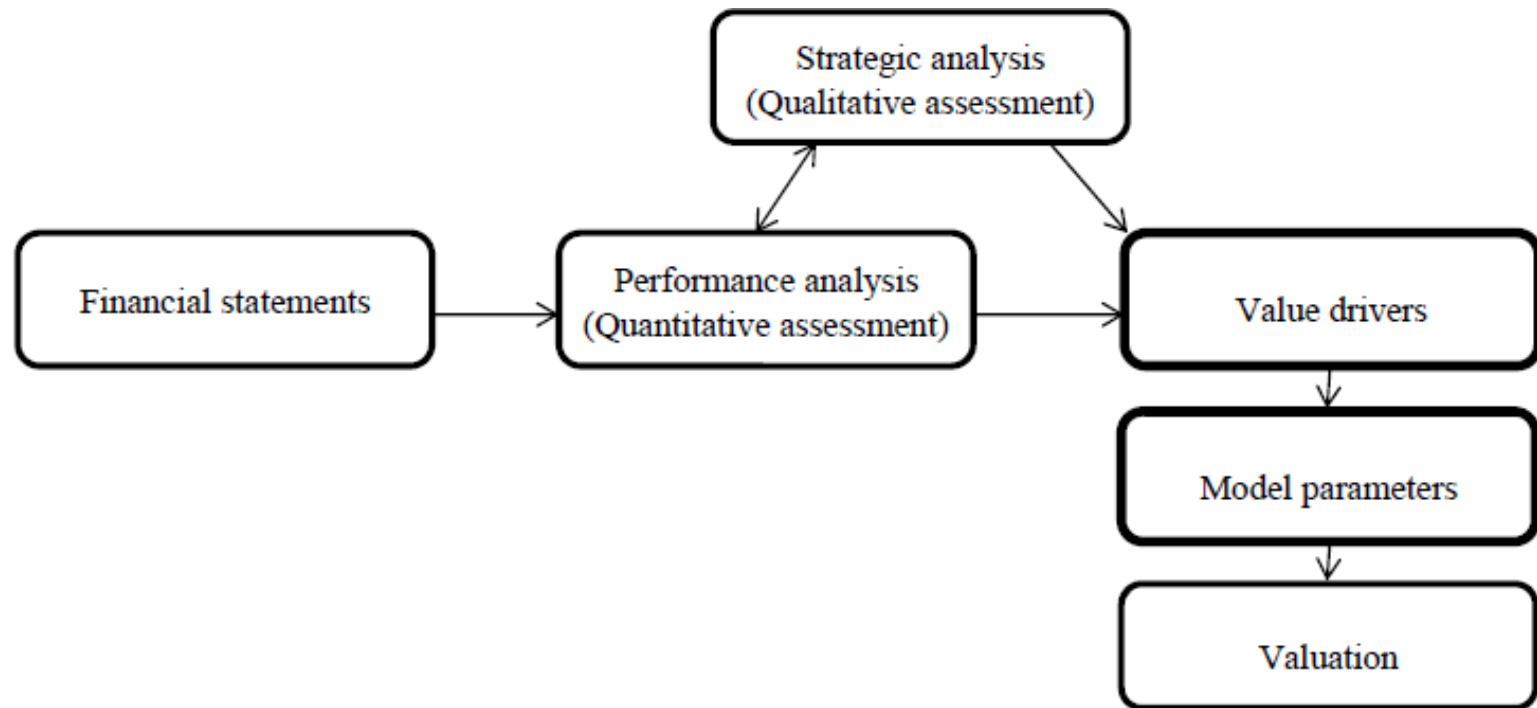
**FIGURE 1.1**

Flow of cash between financial markets and the firm's operations. Key: (1) Cash raised by selling financial assets to investors; (2) cash invested in the firm's operations and used to purchase real assets; (3) cash generated by the firm's operations; (4a) cash reinvested; (4b) cash returned to investors.



# Overall Approach to Valuation

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Source: Hamberg, 2014



# Financial Results: A few caveats

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- ▶ A firm is not profitable because it thinks it is performing profitably
  - ▶ Others must analyse its records and deem it to be profitable according to some norms
  - ▶ These norms may vary over time, with industry, etc.
- ▶ Financial Statements are summary of a large numbers of transactions
  - ▶ There may be a need to “drill down” the aggregates and find out what is the reality behind the numbers
- ▶ Accounting systems provides some discretion to management
  - ▶ Sometimes the discretion may be used to mislead the world



# What to Look at?

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- ▶ **Complete Annual Accounts**
  - ▶ Auditors' Report
  - ▶ Directors' Report
  - ▶ P&L with Schedules
  - ▶ BS with Schedules
  - ▶ Segment wise Performance, if applicable
  - ▶ Notes to Accounts
  - ▶ Tax Audit Reports
  - ▶ Others, if applicable



# Important Issues to Note

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- ▶ Accounting policy
  - ▶ Cash-based v/s Accrual Based Accounting
    - ▶ Accrual based accounting is always better
  - ▶ Accounting Standard Followed
    - ▶ IND-AS
    - ▶ IFRS
    - ▶ GAAP
  - ▶ The accounting policies constantly undergo changes
    - ▶ Necessary adjustments may be required to make figures comparable over years
    - ▶ Adherence to disclosure norms



# A Typical (Simple) Profit & Loss Statement

	<i>PROFIT AND LOSS STATEMENT for A PERIOD</i>					
			12 months	12 months	12 months	12 months
			31.03.2018	31.03.2019	31.03.2020	31.03.2021
1	Gross Sales					
	a) Domestic Sales		3,840.45	6,151.99	6,127.36	6,703.18
	b) Others					
	<b>TOTAL</b>		3,840.45	6,151.99	6,127.36	6,703.18
	<b>Indirect Taxes</b>		580.13	870.04	841.56	925.31
2	<b>Net Sales (Net of Indirect Taxes)</b>		3,260.32	5,281.95	5,285.80	5,777.87
3	Direct Costs					
	Raw Materials/Stores consumpn.		2,578.13	4438.10	4641.70	4,470.34
	Finished goods purchases					
	Power and Fuel		160.45	195.45	247.77	208.25
	Direct Labour		185.04	206.55	209.39	217.90
	Other Mfg. Expenses		27.10	53.10	59.50	37.16
4	Increase/Decrease In Finished Goods/S-I-P		(94.41)	-191.08	-408.44	474.67
5	Depreciation		20.54	46.10	44.32	45.59
6	Cost Of Sales [(3 + 4) + 5]		2,876.85	4,748.22	4,794.24	5,453.91
7	Selling, General & admin Expenses		301.20	208.05	218.98	140.30
8	Interest		162.31	200.14	180.43	137.12
9	Operating Profit		(80.04)	125.54	92.15	46.54
10	Other non-Operating Income / Expenses (Net)		79.19	40.92	64.55	93.00
11	Other Non-cash expenses (i.e. amortisation etc.)		247.96			
12	Profit Before Tax		(248.81)	166.46	156.70	139.54
13	Provision For Taxes			57.45	59.75	37.05
14	<b>Net Profit</b>		(248.81)	109.01	96.95	102.49
15	Dividend incl. Dividend Tax					
16	<b>Retained Profit</b>		(248.81)	109.01	96.95	102.49

# A Typical Profit & Loss

		(₹ in crores)	
		Year ended March 31,	
	Note	2017	2016
I. Income from operations	32	49,100.41	47,383.61
II. Other Income	33	978.84	1,402.31
III. <b>Total Income (I + II)</b>		<b>50,079.25</b>	<b>48,785.92</b>
IV. <b>Expenses:</b>			
(a) Cost of materials consumed		27,654.40	24,997.40
(b) Purchases of products for sale		3,945.97	4,101.97
(c) Changes in inventories of finished goods, work-in-progress, and products for sale		(251.43)	10.05
(d) Excise duty		4,736.41	4,538.14
(e) Employee benefits expense	34	3,558.52	3,188.97
(f) Finance costs	35	1,590.15	1,592.00
(g) Foreign exchange (gain)/loss (net)		(252.45)	222.91
(h) Depreciation and amortisation expense		2,969.39	2,329.22
(i) Product development/Engineering expenses		454.48	418.27
(j) Other expenses	36	8,697.42	8,216.65
(k) Amount capitalised		(941.55)	(1,034.40)
<b>Total Expenses (IV)</b>		<b>52,161.31</b>	<b>48,581.18</b>
V. <b>Profit/(loss) before exceptional items and tax (III-IV)</b>		<b>(2,082.06)</b>	<b>204.74</b>
VI. <b>Exceptional Items</b>			
(a) Provision for impairment of investments and cost associated with closure of operations of a subsidiary		-	97.86
(b) Provision for impairment of investment in a subsidiary		123.17	-
(c) Impairment of capitalised property, plant and equipment and other intangible assets		-	163.94
(d) Employee separation cost		67.61	10.04
(e) Others	37	147.93	-
VII. <b>Profit/(loss) before tax (V-VI)</b>		<b>(2,420.77)</b>	<b>(67.10)</b>
VIII. <b>Tax expense/(credit) (net)</b>	29		
(a) Current tax		44.52	(7.34)
(b) Deferred tax		14.70	2.54
<b>Total Tax Expense/(credit)</b>		<b>59.22</b>	<b>(4.80)</b>
IX. <b>Profit/(loss) for the year from continuing operations (VII-VIII)</b>		<b>(2,479.99)</b>	<b>(62.30)</b>
X. <b>Other comprehensive income/(loss):</b>			
A. (i) Items that will not be reclassified to profit or loss:			
a. Remeasurement gains and (losses) on defined benefit obligations (net)		10.18	20.77
b. Equity instruments fair value through other comprehensive income		73.84	81.19
(ii) Income tax (expense)/credit relating to items that will not be reclassified to profit or loss		(3.79)	(7.19)
B. (i) Items that will be reclassified to profit or loss - gains and (losses) in cash flow hedges		23.32	(13.98)
(ii) Income tax (expense)/credit relating to items that will be reclassified to profit or loss		(8.07)	4.68
<b>Total other comprehensive income/(loss), net of taxes</b>		<b>95.48</b>	<b>85.47</b>
XI. <b>Total comprehensive income/(loss) for the year (IX+X)</b>		<b>(2,384.51)</b>	<b>23.17</b>
XII. <b>Earnings per equity share (EPS)</b>	39		
A. Ordinary shares (face value of ₹ 2 each):			
(i) Basic	₹	(7.30)	(0.18)
(ii) Diluted	₹	(7.30)	(0.18)
B. 'A' Ordinary shares (face value of ₹ 2 each):			
(i) Basic	₹	(7.30)	(0.18)
(ii) Diluted	₹	(7.30)	(0.18)

See accompanying notes to financial statements

In terms of our report attached

For **DELOITTE HASKINS & SELLS LLP**  
Chartered Accountants

**N CHANDRASEKARAN** [DIN: 00121863]  
Chairman

**B P SHROFF**  
Partner

For and on behalf of the Board

**R A MASHELKAR** [DIN: 00074119]

**N MUNJEE** [DIN: 00010180]

**V K JAIRATH** [DIN: 00391684]

**O P BHATT** [DIN: 00548091]

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Directors

**GUENTER BUTSCHEK** [DIN: 07427375]

CEO & Managing Director

**R PISHARODY** [DIN: 01875848]

Executive Director

**S B BORWANKAR** [DIN: 01793948]

Executive Director

**C RAMAKRISHNAN**

Group Chief Financial Officer

**H K SETHNA** [FCS: 3507]

Company Secretary

Mumbai, May 23, 2017

Mumbai, May 23, 2017

Retrieved from  
<http://investors.tatamotors.com/financials/72-ar-html/profit-loss.html>



# Some important ratios/measures related to P&L: A Recapitulation

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- ▶ **Trend of Revenue**
  - ▶ Operating
  - ▶ Non-Operating
- ▶ **Trend of Expenses**
  - ▶ Cash
  - ▶ Non-Cash
  - ▶ Operating & Non-Operating
  - ▶ % of Operating Revenue
- ▶ **Trend of Profitability**
  - ▶ PAT
  - ▶ PBT
  - ▶ PBIDT
  - ▶ PBIDTA
- ▶ **Profitability Margins**
- ▶ **Trend of Retained Earnings**
  - ▶ Dividend Pay-out Ratio
  - ▶ Retention Ratio



# P&L: Theoretical Background

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- ▶ An enterprise commences its operation at the beginning of a fiscal year
  - ▶ At that time, the it has a certain stock of liabilities and assets
- ▶ Operation during the year, coupled with the economic situation, industry conditions and events taking place during the fiscal year, changes its stock of assets and liabilities and equity
  - ▶  $\Delta Equity \propto \text{Gains during the year}$
- ▶ P&L summarizes the flow of revenue, expenses, gains/losses during the fiscal year (current year)
  - ▶ P&L statement, therefore, provides an overview of the understanding of the firm's performance during the fiscal year
  - ▶ It also provides an overview of how equity has changed during the year



# Expenses

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- ▶ Expenses in the P&L statement can be any one of the following:
  - ▶ Cost of goods sold, administrative expenses, selling and distribution expenses, income tax expenses, financing charges
  - ▶ Expenditure incurred during the period from which no asset could be recognized (e.g. research expenses)
  - ▶ Allocation of expenditure incurred during the period or in any of the previous periods and recognized as an asset during that period (e.g. depreciation of fixed assets and/or amortization of intangible assets)
    - ▶ This is also called non-cash expenses



# Discretionary Expenses

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- ▶ Contemporary accounting approach is the asset-liability management approach
- ▶ Accordingly, an expenditure that cannot be recognized as an asset on the balance sheet is recognized as an expense in the income statement whether it has contributed to the current operation or not
  - ▶ Hence, there are items in income statement that has no cause-effect relationship with the revenue in the income statement
- ▶ Examples: R&D Expenses, Advertising Expenses, Training Expenses, Expenses on Preventive Maintenance, etc.
- ▶ Such expenses are called discretionary expenses



# Deferred Revenue Expenses and Fictitious Assets

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- ▶ An expenditure that is not an asset yet is allocated over more than one reporting period is called a deferred revenue expenditure
  - ▶ E.g. Advertising expenditure to launch a product, training expenditure other than that on regular training, expenditure on voluntary retirement scheme
- ▶ Fictitious Assets: sometimes accountants use this term to represent an expenditure that is not an asset, and is shown in the asset side of the balance sheet by accounting fiction
  - ▶ Example: In 2023-24, Rado Limited has spent Rs. 1.00 million promotional expenses for launching a new brand of washing machine that will be launched towards the end of the financial year. This amount is over and above its routine advertising expenses. The company expects that the life-cycle of the washing machine will be about 5 years



## Fictitious Assets...contd.

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- ▶ Accordingly, Rado plans to amortize Rs. 0.20 million every year
  - ▶ In 2023-24, Rs. 0.20 million is recognized as expense in the income statement
  - ▶ Balance Rs. 0.80 million will be carried forward to the balance sheet (assets) and will be shown as “miscellaneous expenses to the extent not written off”.
  - ▶ This unamortized asset of Rs. 0.80 million is termed as fictitious asset - as the extent of benefits generated by this asset in the future years is uncertain
- ▶ Other examples of deferred revenue expenditure are preliminary expenses, share issue expenses, discount on issue of shares or debentures, discretionary expenses, etc.



# A Simple Balance Sheet

Name	ALPHA-BETA-GAMMA LIMITED				
		12 months 31.03.2018	12 months 31.03.2019	12 months 31.03.2020	12 months 31.03.2021
<b>CURRENT ASSETS</b>					
1Cash & Bank Balances		74.03	75.76	70.70	62.00
2Marketable Securities					
3Accounts Receivable		514.23	1,217.27	322.87	798.26
4Advances to suppliers					
5Inventory - Raw Materials / Stores		764.52	457.74	767.83	260.50
- Stock in Progress		378.73	569.81	978.25	503.58
- Finished Goods					
6Other Current Assets		30.68	10.07	5.40	4.90
7Deposits/Advance to staff & others		137.04	147.08	210.49	275.60
8CD's/Accrued Interest/Tax etc.					
<b>A TOTAL CURRENT ASSETS (1-8)</b>		<b>1,899.23</b>	<b>2,477.73</b>	<b>2,355.54</b>	<b>1,904.84</b>
<b>FIXED / SLOW ASSETS</b>					
9Gross Block (incl. capital w-l-p)		1,421.94	1,439.18	1,472.61	1,488.93
10Less : Depreciation		948.70	989.18	1,025.00	1,062.58
11Net Block		473.24	450.00	447.61	426.35
12Other Investments / Loans & Advances		96.17	96.02	96.02	70.04
13Other Non-Current Assets		85.21	67.76	66.14	45.98
<b>B TOTAL FIXED &amp; SLOW ASSETS</b>		<b>654.62</b>	<b>613.78</b>	<b>609.77</b>	<b>542.37</b>
<b>C INTANGIBLES ASSETS</b>			2.39	1.80	1.20
<b>TOTAL ASSETS (A+B+C)</b>		<b>2,553.85</b>	<b>3,093.90</b>	<b>2,967.11</b>	<b>2,448.41</b>
<b>CURRENT LIABILITIES</b>					
14Bank Borrowings		507.06	553.12	516.88	413.77
15Accounts Payable (Trade Creditors)		582.80	614.23	564.81	118.02
16Provision For Taxation (net of adv tax paid)		27.42	70.25	93.06	105.70
17Term liabilities due Within 1 Year					
18Other Short term borrowings					
19Other Current Liabilities		248.58	263.84	301.22	232.71
20Liabilities for expenses					
<b>E TOTAL CURRENT LIABILITIES</b>		<b>1,365.86</b>	<b>1,501.44</b>	<b>1,475.97</b>	<b>870.20</b>
<b>TERM LIABILITIES</b>					
22Term Loans					
23Deferred Payment Credits			12.09	40.84	40.89
24Debentures (Redeemable/Preference Shares)					
25Other Term Borrowings		373.37	652.79	457.94	478.30
<b>F TOTAL TERM LIABILITIES</b>		<b>373.37</b>	<b>664.88</b>	<b>498.78</b>	<b>519.19</b>
<b>G TOTAL OUTSIDE LIABILITIES (E + F)</b>		<b>1,739.23</b>	<b>2,166.32</b>	<b>1,974.75</b>	<b>1,389.39</b>
<b>NET WORTH</b>					
26Share Capital		250.00	250.00	250.00	250.00
27Reserves & Surplus		564.64	561.82	630.63	700.99
28Unsecured Loan/Quasi Equity					
29Revaluation Reserve			115.76	111.72	108.03
30Other Reserve					
<b>H NET WORTH</b>		<b>814.64</b>	<b>927.58</b>	<b>992.35</b>	<b>1,059.02</b>
<b>I TOTAL LIABILITIES (G + H)</b>		<b>2,553.87</b>	<b>3,093.90</b>	<b>2,967.10</b>	<b>2,448.41</b>

# A Typical Balance Sheet

(₹ in crores)				
	Note	As at March 31, 2017	As at March 31, 2016	As at April 1, 2015
<b>I. ASSETS</b>				
1. <b>NON-CURRENT ASSETS</b>				
(a) Property, plant and equipment	3	59,594.56	64,927.07	54,264.65
(b) Capital work-in-progress		10,186.83	6,550.97	8,852.69
(c) Goodwill	5	673.32	759.80	731.95
(d) Other intangible assets	6	35,676.20	41,544.89	33,908.19
(e) Intangible assets under development		23,512.01	19,367.97	19,155.46
(f) Investment in equity accounted investees	7	4,606.01	3,763.95	3,173.66
(g) Financial assets:				
(i) Other investments	8	690.76	770.03	768.85
(ii) Finance receivables	16	10,753.13	9,671.55	9,606.60
(iii) Loans and advances	10	753.66	503.88	496.71
(iv) Other financial assets	11	2,911.12	1,825.51	647.64
(h) Deferred tax assets (net)	20	4,457.34	3,957.03	4,049.41
(i) Non-current tax assets (net)		260.20	1,265.81	947.45
(j) Other non-current assets	18	2,847.36	2,309.02	1,983.60
		<b>156,922.50</b>	<b>157,217.48</b>	<b>138,586.86</b>
2. <b>CURRENT ASSETS</b>				
(a) Inventories	12	35,085.31	32,655.73	29,044.15
(b) Financial assets:				
(i) Other investments	9	15,041.15	19,233.04	14,074.78
(ii) Trade receivables	13	14,075.55	13,570.91	12,972.80
(iii) Cash and cash equivalents	14	13,986.76	17,153.61	19,743.09
(iv) Bank balances other than (iii) above	15	22,091.12	13,306.79	10,668.84
(v) Finance receivables	16	6,810.12	6,079.92	4,959.45
(vi) Loans and advances	10	710.45	1,117.10	779.78
(vii) Other financial assets	11	1,555.94	835.73	1,689.80
(c) Current tax assets (net)		935.47	146.75	212.08
(d) Other current assets	19	6,539.99	5,824.09	5,412.09
		<b>116,831.86</b>	<b>109,923.67</b>	<b>99,556.86</b>
<b>TOTAL ASSETS</b>		<b>273,754.36</b>	<b>267,141.15</b>	<b>238,143.72</b>
<b>II. EQUITY AND LIABILITIES</b>				
<b>EQUITY</b>				
(a) Equity share capital	21	679.22	679.18	643.78
(b) Other equity	22	57,382.67	78,273.23	54,628.80
Equity attributable to owners of Tata Motors Ltd		58,061.89	78,952.41	55,272.58
Non-controlling interests		453.17	432.84	429.75
		<b>58,515.06</b>	<b>79,385.25</b>	<b>55,702.33</b>
<b>LIABILITIES</b>				
1. <b>NON-CURRENT LIABILITIES</b>				
(a) Financial liabilities:				
(i) Borrowings	24	60,629.18	50,510.39	54,607.14
(ii) Other financial liabilities	26	11,409.58	7,943.74	7,994.85
(b) Provisions	28	9,004.46	7,891.01	6,938.27
(c) Deferred tax liabilities (net)	20	1,174.00	4,474.78	2,559.49
(d) Other non-current liabilities	29	17,392.56	9,886.55	10,948.00
		<b>99,609.78</b>	<b>80,706.47</b>	<b>83,047.75</b>
2. <b>CURRENT LIABILITIES</b>				
(a) Financial liabilities:				
(i) Borrowings	25	13,859.94	11,450.78	13,154.68
(ii) Trade payables		57,698.33	57,580.46	52,094.70
(iii) Acceptances		4,834.24	3,981.33	4,076.75
(iv) Other financial liabilities	27	25,634.83	21,281.60	19,173.01
(b) Provisions	28	5,807.76	5,844.51	4,969.12
(c) Current tax liabilities (net)		1,392.58	723.53	820.13
(d) Other current liabilities	30	6,401.84	6,187.22	5,105.25
		<b>115,629.52</b>	<b>107,049.43</b>	<b>99,393.64</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>273,754.36</b>	<b>267,141.15</b>	<b>238,143.72</b>

See accompanying notes to the consolidated financial statements

In terms of our report attached

For **DELOITTE HASKINS & SELLS LLP**  
Chartered Accountants

**N CHANDRASEKARAN** [DIN: 00121863]  
Chairman

**B P SHROFF**  
Partner

For and on behalf of the Board

**R A MASHELKAR** [DIN: 00074119]

**N MUNJEE** [DIN: 00010180]

**V K JAIRATH** [DIN: 00391684]

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Group Chief Financial Officer

**H K SETHNA** [FCS: 3507]

Company Secretary

Mumbai, May 23, 2017

Mumbai, May 23, 2017

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# Some important ratios related to BS: A Recapitulation

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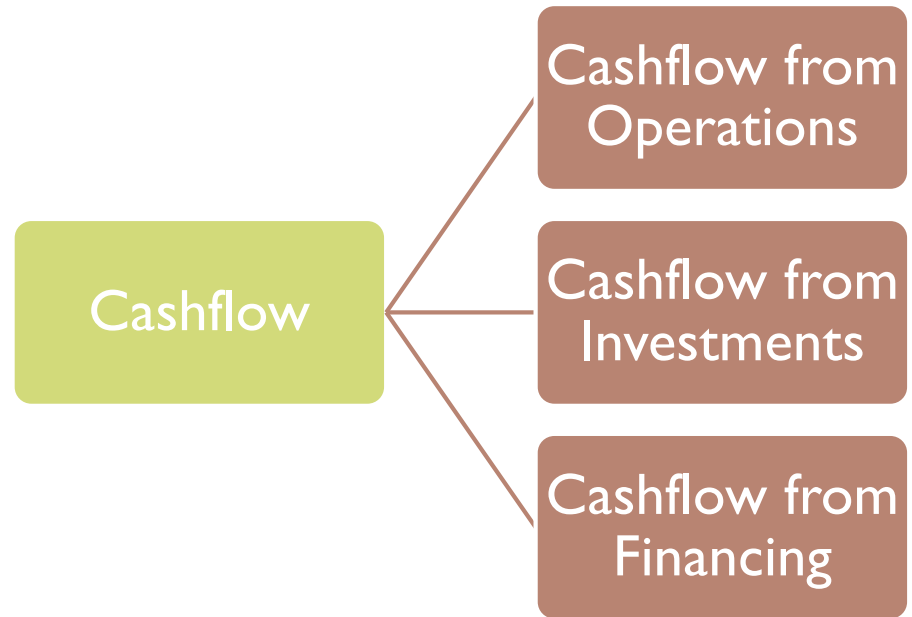
- ▶ Trend in Equity & Reserves
  - ▶ Composition
- ▶ Pattern of Movement in Capital Structure
  - ▶ Leverage Ratios
- ▶ Pattern of Movement in NWC
- ▶ Pattern of Movement in Non-Current Assets
  - ▶ Fixed Assets
  - ▶ Financial Assets
- ▶ Build-up of Current Assets
  - ▶ Holding Periods
  - ▶ % of Sales
  - ▶ Cash & Marketable Securities
- ▶ Build up of Current Liabilities
  - ▶ % of Purchases
- ▶ Pattern of Financing Current Assets
  - ▶ CLOB, Borrowings, NWC



# Statement of Cashflow

---

- ▶ **Operating Activities:**  
Principal activities of an organization
  - ▶ Cashflows associated with the principal activities (sale, purchase, other expense, etc.)
- ▶ **Investing Activities:** Cashflow from acquisition/disposal of long term assets
- ▶ **Financing Activities:** Cashflow arising out of the change in equity of and/or borrowing by an organization



# Cashflows

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- ▶  $CF \text{ from Operations} = PAT + Depreciation + \Delta NonCashCA + \Delta CLOB$
- ▶  $CF \text{ from Investing} = \Delta NonCurrent Assets$
- ▶  $CF \text{ from Financing} = \Delta Equity + \Delta Debt$
- ▶  $CashFlow \text{ during the Year} = CFO + CFI + CFF$
- ▶  $Opening \text{ Cash \& CE} + CF \text{ during the Years} = Closing \text{ Cash \& CE}$
- ▶ *Rule:*
  - ▶  $\Delta Assets > 0 \rightarrow Cash \text{ Outflow}; \Delta Assets < 0 \rightarrow Cash \text{ Inflow}$
  - ▶  $\Delta Liabilities > 0 \rightarrow Cash \text{ Inflow}; \Delta Liabilities < 0 \rightarrow Cash \text{ Outflow}$



# Some More Ratios

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$$\text{Operating Cash Flow Ratio} = \frac{\text{Operating Cash Flow}}{\text{Current Liabilities}}$$

- ▶ Whether Operating Cash Flows are sufficient to discharge the current liabilities

$$\text{Price-Cash Flow Ratio} = \frac{\text{Price per share}}{\text{Operating Cash Flow per share}}$$

- ▶ Possible when the stock is publicly traded
  - ▶ Closing price? (Or, intra-day average price?)
  - ▶ An indication of value



# Some More Ratios

---

$$\text{Cash Flow Margin Ratio} = \frac{\text{Cash Flow from Operations}}{\text{Net Sales}}$$

- ▶ Provides an indicator for the ability of the firm to convert sales to cash
  - ▶ Higher the ratio, the better

$$\text{Cash Flow to Total Liabilities} = \frac{\text{Cash flow from Operations}}{\text{Total Liabilities}}$$

- ▶ Indicates the ability of the firm to meet its liabilities from cash flow from operations
  - ▶ Sometimes, average liabilities is used
  - ▶ Higher ratio is better



# Some more ratios

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$$\text{Fixed Assets Ratio} = \frac{\text{NFA}}{\text{Long Term Funds}} = \frac{(\text{GFA} - \text{Acc. Depreciation})}{\text{NW} + \text{LTL}}$$

- ▶ Extent to which fixed assets have been built-up by using long term funds
  - ▶ Ideally, less than 1 (Ask yourself, intuitively, why?)

$$D / E = \frac{\text{Long Term Debt}}{\text{Shareholders' Funds}}$$

$$D / (D + E) = \frac{\text{Long Term Debt}}{\text{Total Long Term Funds}}$$

$$TOL / NW = \frac{\text{Total Outside Liabilities}}{\text{Shareholders' Funds}} = \frac{LTL + CL}{NW}$$

$$TOL / TNW = \frac{LTL + CL}{(NW - \text{Adjustments})}$$

- ▶ Leverage Ratios or Solvency Ratios



# Some more Ratios

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## ► Short term Solvency Ratios/ Liquidity Ratios

$$\text{Current Ratio} = \frac{CA}{CL}$$

$$\text{Quick Ratio} = \frac{CA - \text{Stocks}}{CL}$$

$$\text{Liquidity Ratio} = \frac{CA - \text{Stocks}}{CL - \text{Short Term Borrowings}}$$

$$\text{Super Quick Ratio} = \frac{\text{Cash \& MS}}{CL}$$

## ► Significance? - Try yourself!



# Some More Ratios

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- ▶ **Defensive Interval Ratio**

$$DIR = \frac{\text{Quick Assets}}{\text{Average Daily Cash Requirements}}$$

- ▶ Ability of the quick assets to meet the daily cash requirements

- ▶ **Debt Service Coverage Ratio**

$$DSCR = \frac{\text{PAT} + \text{Depreciation} + \text{Interest on Loan}}{\text{Interest on Loan} + \text{Installment due on Loan during a year}}$$

- ▶ What does this mean?





# 3-Step Du Pont Analysis

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▶  $ROE = \frac{PAT}{Total\ Equity} = \frac{PAT}{Net\ Sales} \times \frac{Net\ Sales}{Total\ Assets} \times \frac{Total\ Assets}{Total\ Equity}$

▶  $ROE =$   
 $Net\ Profit\ Margin \times Asset\ Turnover\ Ratio \times \frac{1}{\frac{Total\ Equity}{Total\ Assets}}$

▶  $ROE = Net\ Profit\ Margin \times Asset\ Turnover\ Ratio \times \frac{1}{(1 - Debt\ to\ Asset\ Ratio)}$



# 5-Step Du Pont Analysis

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▶  $ROE = \frac{PAT}{Total\ Equity}$

▶  $Or, ROE = \frac{PAT}{PBT} \times \frac{PBT}{PBIT} \times \frac{PBIT}{Net\ Sales} \times \frac{Net\ Sales}{Total\ Assets} \times \frac{Total\ Assets}{Total\ Equity}$

▶  $Or, ROE =$   
 $(Tax\ Burden\ Ratio) \times (Interest\ Burden\ Ratio) \times (Operating\ Profit\ Margin) \times$   
 $(Total\ Asset\ Turnover) \times (Leverage\ Ratio)$



# Value Creation

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- ▶ Value Creation = Return on Net Assets (RONA) exceeds WACC

$$RONA = \frac{NOPAT}{NET\_ASSETS} = \frac{NOPAT}{SALES} * \frac{SALES}{NET\_ASSETS}$$

$$NET\_ASSETS = NFA + NWC$$

$$NOPAT = EBIT * (1 - T)$$

- ▶ Value is created when:
  - ▶ Earnings power increase (NOPAT/SALES)
  - ▶ Asset Efficiency is Improved (SALES/NET\_ASSETS)
- ▶ Analysts consider value creation when
  - ▶ Profit Margin is increasing (P&L)
  - ▶ Sales (P&L) are improving relative to level of assets (BS)



# Delve Deeper!

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- ▶ Antill & Lee (2008) suggests special consideration be accorded to
  - ▶ Revenues from Warranties & Service Contracts
  - ▶ Promotions & Discounts
  - ▶ Lease Rentals paid
  - ▶ Contingent Assets
  - ▶ Contingent Liabilities
  - ▶ Expenses for R&D
  - ▶ Quasi-Equity
  
- ▶ Management discussions is an important aspect
  - ▶ Readjustment of P&L and BS may be necessary
  - ▶ Current trends – Earnings Management & Window Dressing of Financials (Beware!)



# Some Takeaway Messages

- ▶ How to Interpret Financial Structure and Financial Performance of a Firm?
- ▶ What Questions to ponder over?
- ▶ How the financial history can be used to predict the future financials?





Thank You!