

LARGE UNITS IN THE INDIAN TRADITIONAL NUMBERING SYSTEM

December 13, 2005

Alternate Title

MY 2¢ ON REDISCOVERING LARGE INDIAN NUMBERING UNITS

The LAC (Lakh) and CRORE are large units in the traditional numbering system of India, Pakistan and Bangladesh.

The following were determined empirically (1 hour):

LAC: Appeared to be 100 000 **YES! (verified [5])
CRORE: Appeared to be 10 000 000 **YES! (verified)

1 Crore = 100 Lakh
1 Lac = .01 Crore

Examples: \$152 B = Rs. 7 Lakh Crore. (The Indian currency is the Rupee, "Rs." As of December 13, 2005; 1 INR = 2.17344¢ or 1 American Dollar = Rs. 46.01); or, I sell my services for Rs. 9.2 lakh = \$200k

The following were determined by encyclopedia reference [5] (1 minute): NOTE: The Crore size is different in the obsoleted Iranian traditional numbering system.

Separators are different, with commas at the thousand, lakh, and crore levels:

3M = 30 lakh, or also, 30 lacs is written 30,00,000.
30M = 3 Crore, or also 3 Crs is written 3,00,00,000.

Tourism Example: "India is emerging as a preferred destination for the business and leisure travel to Asia. In CY03, the total foreign tourist arrivals are estimated at 27.5 lac, up by 15% from CY02.... Domestic tourists are estimated at 15 crore people per annum for CY03 " [1]

Accounting Example: "Performance During 2002 - 2003, Indian Overseas Bank (IOB)" [2]
Rs. "EPS up from Rs.5.18 to Rs.9.35.

Rs. Lac: "Profit per Employee rose to Rs.1.70 lac from Rs.93,000;
(lacs) Business per Employee improved to Rs.204 lakh from Rs.175 lakh.

Rs. Crore: "The Bank's global deposits stood at Rs.36699 Crore;
(Crs) Global gross advances stood at Rs. 17447 crore;
 Operating Profit improved to Rs.794 crore;
 Net Profit up by 81% at Rs.416 crore.

Ratios: Ratio of operating profit to average working funds went up from 1.78% to 1.99%.
 Return on Assets leaped from 0.65% to 1.01%.
 Domestic Net Interest Margin improved to 3.14% as of March 2003.

Production Example 1: "Performance of the Small Scale Industry (SSI) sector in terms of number of units, production, employment and exports from 1973-74 to 1998-99 has been enclosed as Annexure-I. There were about 20 lakh SSI units in 1990-91, producing goods worth Rs.1,55,340 crore, exports of the order of Rs.9,661 crore and providing employment to about 125 lakh persons. Achievements of the SSI sector in 1998-99 were 31 lakh units, production of Rs.5,27,515 crore, exports at Rs.48,979 crore and providing employment to 171 lakh persons." [3]

Production Example 2: "The Indian Industry produces 10 lac tons of corrugated boxes annually. Today the corrugated industry is attracting more and more technocrats engineers and packaging specialists who are transforming it into a progressive and dynamic industry. The industry is converting over 10 lakh tonnes of paper per year into boxes and boards. Over 1 lakh people are directly employed in this industry belonging to the small scale sector." [4, different lac spellings in source]

Deposit Example: From Union Bank of India [6]

Size of credit limit	Repayable	
	up to 3 years	3 years or more
Upto Rs. 50,000	8.5 %	9 %
Over Rs. 50,000/up to Rs. 2 lacs	9.5 %	9.75 %
Over Rs. 2 lacs up to Rs. 5 lacs	10.25 %	10.25 %
Over Rs. 5 lacs up to Rs. 25 lacs	11.25 %	11.75 %
Over Rs. 25 lacs based on credit risk assessment	10.75 % to 12.25 %	11.25 % to 12.75 %

Term	Figure	No of zeros	In words (short scale)
lakh (lac)	1,00,000	5	100 000
crore	1,00,00,000	7	Ten million
arab	1,00,00,00,000	9	1 billion
kharab	1,00,00,00,00,000	11	100 billion
neel	1,00,00,00,00,00,000	13	10 trillion
padma	1,00,00,00,00,00,00,000	15	1 quadrillion
shankh	1,00,00,00,00,00,00,00,000	17	100 quadrillion
maha-	1,00,00,00,00,00,00,00,00,000	19	10 quintillion

Table 1, Traditional Numbering System Units Table, from [5]. Only arab, crore and lakh are commonly used; the higher denominations listed above are relatively unheard of, though padma and kharab are sometimes used in Hindi.

Notice here that the overall structure is in terms of 100's, NOT 1000's, as in the west. Other examples include those found in "SMALL SCALE INDUSTRIES APPLICATION FORM FOR CREDIT FACILITIES OF OVER Rs. 15 Lacs & UPTO Rs. 1 Crore," http://tripura.nic.in/industry/TIDC_Application_Form_for_loan_above_Rs._15_lakhs_to_Rs._1_1.doc, etc.

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I thank Dr. Marc Epstein, Distinguished Research Professor, Rice University's Jones Graduate School of Management, for suggesting this research question. Additionally, George Macoukji, University of St. Thomas/Cameron School of Business 2007 MBA candidate, pointed out the hundreds vs. thousands structure.

NOTES/References

[1] <http://www.moneypore.com/SectorUpdate131204.htm>

[2] The Indian Overseas Bank (IOB) was founded on February 10th 1937, by Shri.M.Ct.M. Chidambaram Chettyar, a pioneer in many fields - Banking, Insurance and Industry with the twin objectives of specialising in foreign exchange business and overseas banking. IOB had the unique distinction of commencing business on 10th February 1937 (on the inaugural day itself) in three branches simultaneously - at Karaikudi and Chennai in India and Rangoon in Burma (presently Myanmar) followed by a branch in Penang. At the dawn of Independence IOB had 38 branches in India and 7 branches abroad. Deposits stood at Rs.6.64 Crs and Advances at Rs.3.23 Crs at that time.

IOB was one of the 14 major banks that was nationalised in 1969. On the eve of Nationalisation in 1969, IOB had 195 branches in India with aggregate deposits of Rs. 67.70 Crs. and Advances of Rs. 44.90 Crs. The Bank made a successful debut in raising capital from the public during the financial year 2000-01, despite a subdued capital market. The issue opened on September 25, 2000 for raising Rs.111.20 crore and was oversubscribed by 1.87 times. The issue closed on September 29, 2000 - on the earliest closing day. The allotment was made in October 2000. Consequent to the public issue, the share of the Government in the Bank's capital came down to 75%. The shares of the Bank have been listed on the Madras Stock Exchange (Regional), Stock Exchange at Mumbai and the National Stock Exchange of India Ltd.

Vision of the Bank is "To Emerge as the most competitive Bank in the Industry." See <http://www.iob.com/genesis.asp>

[3] Interim Report Of The Study Group On Development Of Small Enterprises, 24 MAY 1999, <http://web5.laghu-udyog.com/publications/comitterep/gupta.html>

[4] Dr. Ranjit Singh, "Dial P for Packaging", PURCHASE magazine, November - December 2001 <http://www.indianpurchase.com/magonline/packaging/200112/article1.htm>

[5] Wikipedia contributors, "Crore," and "Lacs," Wikipedia, The Free Encyclopedia, <http://en.wikipedia.org/w/index.php?title=Crore&oldid=30477566> (accessed December 13, 2005).

[6] <http://www.statebankofindia.com/viewsection.jsp?lang=0&id=0,16,434>

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