

Annex-1

Change of Total debt amount

Year	Total Loan Amount	% Change
2001	66590.5	
2002	79518.3	19.41
2003	84645.3	6.45
2004	86133.7	1.76
2005	87565.3	1.66
2006	89954.9	2.73
2007	99303.8	10.39
2008	111239.1	12.02

Annex-2

Percentage Change on individual Government Debt

Year	Treasury Bills	Percentage Change on Treasury Bills.	Development Bonds	Percentage Change on Development Bond.	National Saving Bonds	Percentage Change on National Saving Bond	Citizen Saving Certificate	Percentage Change on citizen Saving Certificate	Special Bonds	Percentage Change on Special bond	Overdraft
2002	41106.6	-	11090.7	-	11536.3	-	628.1	-	9259.4	-	5897.2
2003	48860.7	18.86	16059.2	44.80	9629.8	-16.53	931.1	48.24	9164.5	-1.02	0
2004	49429.6	1.16	17549.2	9.28	9029.8	-6.23	1178.9	26.61	8946.2	-2.38	0
2005	51383.1	3.95	19999.2	13.96	6576.8	-27.17	1429.9	21.29	8176.3	-8.61	0
2006	62970.3	22.55	17959.2	-10.20	3876.8	-41.05	1678.9	17.41	3469.8	-57.56	0
2007	74445.3	18.22	19177.1	6.78	1516.9	-60.87	1391	-17.15	2773.5	-20.07	0
2008	85033	14.22	21735.4	13.34	1116.9	-26.37	3014.4	116.71	339.4	-87.76	0

Annex-3

Mean, Standard Deviation and C.V of Treasury Bills

Year	Treasury Bills(X)	x=(X-Mean)	x ²
1987	3440	-20934.49	438252871.6
1988	4090	-20284.49	411460534.6
1989	1171	-23203.49	538401948.2
1990	1821	-22553.49	508659911.2
1991	2351	-22023.49	485034111.8
1992	3483.2	-20891.29	436445997.9
1993	4403.2	-19971.29	398852424.3
1994	5216.3	-19158.19	367036244.1
1995	6392.5	-17981.99	323351964.4
1996	7142.5	-17231.99	296941479.4
1997	8092.5	-16281.99	265103198.4
1998	9182.5	-15191.99	230796560.2
1999	17586.9	-6787.59	46071378.01
2000	21026.9	-3347.59	11206358.81
2001	27610.8	3236.31	10473702.42
2002	41106.6	16732.11	279963505.1
2003	48860.7	24486.21	599574480.2
2004	49429.6	25055.11	627758537.1
2005	51383.1	27008.61	729465014.1
2006	62970.3	38595.81	1489636550
2007	74445.3	50070.81	2507086014
2008	85033	60658.51	3679454835
n=22	∑X=536238.9	∑x=0	∑x ² =14681027620

Mean of Treasury Bills

$$Mean (\bar{X}) = \frac{\sum X}{n}$$

$$Mean = \frac{536238.9}{22}$$

So Mean=24374.49

Then Standard Deviation

$$\sigma = \sqrt{\frac{\sum x^2}{n}} \quad (\text{Where } x = X - \bar{X})$$

$$\sigma = \sqrt{\frac{14681027620}{22}}$$

σ=25832.52

Coefficient of Variation

$$C.V. = \frac{\sigma}{\bar{X}}$$

$$C.V. = \frac{25832.52}{24374.49} \times 100$$

So C.V=105.98%

Annex-4

Mean, Standard Deviation and C.V of Development Bond

Year	Development Bonds (b)	x=(X-Mean)	x ²
1987	2990	-5664.69	32088712.8
1988	4651.7	-4002.99	16023928.94
1989	5088.6	-3566.09	12716997.89
1990	5388.6	-3266.09	10667343.89
1991	5482.3	-3172.39	10064058.31
1992	5132.2	-3522.49	12407935.8
1993	5132.2	-3522.49	12407935.8
1994	4732.2	-3922.49	15385927.8
1995	4122.2	-4532.49	20543465.6
1996	3672.2	-4982.49	24825206.6
1997	3042.2	-5612.49	31500044
1998	3302.2	-5352.49	28649149.2
1999	3872.2	-4782.49	22872210.6
2000	4262.2	-4392.49	19293968.4
2001	5962.2	-2692.49	7249502.4
2002	11090.7	2436.01	5934144.72
2003	16059.2	7404.51	54826768.34
2004	17549.2	8894.51	79112308.14
2005	19999.2	11344.51	128697907.1
2006	17959.2	9304.51	86573906.34
2007	19177.1	10522.41	110721112.2
2008	21735.4	13080.71	171104974.1
n=22	∑X=190403.2	∑x=0	∑x ² =913667509

Mean of Development Bond

$$Mean = \frac{\sum X}{n}$$

$$Mean(\bar{X}) = \frac{190403.2}{22}$$

So Mean=8654.69

Then Standard Deviation

$$\sigma = \sqrt{\frac{\sum x^2}{n}} \quad (\text{Where } x=X-\bar{X})$$

$$\sigma = \sqrt{\frac{913667509}{22}}$$

σ=6444.40

Coefficient of Variation

$$C.V. = \frac{\sigma}{\bar{X}}$$

$$C.V. = \frac{6444.40}{8654.69} \times 100$$

So C.V=74.46%

Annex-5

Mean, Standard Deviation and C.V of National Saving

Year	National Saving bonds (c)	x=(X-Mean)	x ²
1987	1940	-4323.80	18695285.74
1988	2196.5	-4067.30	16542966.26
1989	2196.5	-4067.30	16542966.26
1990	2896.5	-3367.30	11338739.90
1991	3646.5	-2617.30	6850283.08
1992	4546.3	-1717.50	2949821.86
1993	4901.5	-1362.30	1855873.67
1994	5691.5	-572.30	327532.49
1995	6076.4	-187.40	35120.46
1996	7376.5	1112.70	1238091.18
1997	8736.5	2472.70	6114222.81
1998	9886.4	3622.60	13123197.83
1999	10426.4	4162.60	17327200.92
2000	11526.5	5262.70	27695963.45
2001	12476.4	6212.60	38596342.29
2002	11536.3	5272.50	27799208.32
2003	9629.8	3366.00	11329925.40
2004	9029.8	2766.00	7650730.86
2005	6576.8	313.00	97966.15
2006	3876.8	-2387.00	5697790.70
2007	1516.9	-4746.90	22533102.76
2008	1116.9	-5146.90	26490626.40
N=22	$\sum X=137803.7$	$\sum x=0.00$	$\sum x^2=280832958.81$

Mean of National Saving

$$Mean = \frac{\sum X}{n}$$

$$Mean(\bar{X}) = \frac{137803.7}{22}$$

So Mean=6263.80

Then Standard Deviation

$$\sigma = \sqrt{\frac{\sum x^2}{n}} \quad (\text{Where } x=X-\bar{X})$$

$$\sigma = \sqrt{\frac{280832958.81}{22}}$$

$\sigma=3572.83$

Coefficient of Variation

$$C.V. = \frac{\sigma}{\bar{X}}$$

$$C.V. = \frac{3572.83}{6263.80} \times 100$$

So C.V=57.03%

Annex-6

Mean, Standard Deviation and C.V Citizen saving Certificate

Year	Citizen Saving Certificate	x=(X-Mean)	x ²
1987	0	-466.0136	217168.7
1988	0	-466.0136	217168.7
1989	0	-466.0136	217168.7
1990	0	-466.0136	217168.7
1991	0	-466.0136	217168.7
1992	0	-466.0136	217168.7
1993	0	-466.0136	217168.7
1994	0	-466.0136	217168.7
1995	0	-466.0136	217168.7
1996	0	-466.0136	217168.7
1997	0	-466.0136	217168.7
1998	0	-466.0136	217168.7
1999	0	-466.0136	217168.7
2000	0	-466.0136	217168.7
2001	0	-466.0136	217168.7
2002	628.1	162.0864	26272
2003	931.1	465.0864	216305.4
2004	1178.9	712.8864	508207
2005	1429.9	963.8864	929077
2006	1678.9	1212.8864	1471093
2007	1391	924.9864	855599.8
2008	3014.4	2548.3864	6494273
n=22	∑X=10252.3	∑x=0.0	∑x²= 13758358

Mean of Citizen Saving Certificate

$$Mean = \frac{\sum X}{n}$$

$$Mean(\bar{X}) = \frac{10252.3}{22}$$

So Mean= 466.01

Then Standard Deviation

$$\sigma = \sqrt{\frac{\sum x^2}{n}} \quad (\text{Where } x=X-\bar{X})$$

$$\sigma = \sqrt{\frac{13758358}{22}}$$

σ=790.80

Coefficient of Variation

$$C.V. = \frac{\sigma}{\bar{X}}$$

$$C.V. = \frac{790.80}{466.01} \times 100$$

So C.V=169.69%

Annex-7

Mean, Standard Deviation and C.V Citizen Special Bond

Year	Special Bond	x=(X-Mean)	x ²
1987	627.4	-9091.01	82646462.82
1988	697.8	-9020.61	81371404.77
1989	4431.8	-5286.61	27948245.29
1990	4567	-5151.41	26537024.99
1991	9376.1	-342.31	117176.1361
1992	10073.2	354.79	125875.9441
1993	11019.1	1300.69	1691794.476
1994	14991.2	5272.79	27802314.38
1995	15466.8	5748.39	33043987.59
1996	16050.6	6332.19	40096630.2
1997	16019.6	6301.19	39704995.42
1998	19035.5	9317.09	86808166.07
1999	17784.2	8065.79	65056968.32
2000	17541.4	7822.99	61199172.54
2001	13994.3	4275.89	18283235.29
2002	9259.4	-459.01	210690.1801
2003	9164.5	-553.91	306816.2881
2004	8946.2	-772.21	596308.2841
2005	8176.3	-1542.11	2378103.252
2006	3469.8	-6248.61	39045126.93
2007	2773.5	-6944.91	48231774.91
2008	339.4	-9379.01	87965828.58
n=22	∑X=213805.1	∑x=0.0	∑x²=771168102.7

Mean of Citizen Special Bond

$$Mean = \frac{\sum X}{n}$$

$$Mean(\bar{X}) = \frac{213805.1}{22}$$

So Mean= 9718.41

Then Standard Deviation

$$\sigma = \sqrt{\frac{\sum x^2}{n}} \quad (\text{Where } x=X-\bar{X})$$

$$\sigma = \sqrt{\frac{771168102.7}{22}}$$

σ=5920.56

Coefficient of Variation

$$C.V. = \frac{\sigma}{\bar{X}}$$

$$C.V. = \frac{5920.56}{9718.41} \times 100$$

So C.V=60.92%

Annex-8

Mean, Standard Deviation and C.V Overdraft

Year	Overdraft	x=(X-Mean)	x ²
1987	44.7	-1186.509	1407803.61
1988	0	-1231.209	1515875.6
1989	2041.2	809.991	656085.42
1990	406.1	-825.109	680804.862
1991	0	-1231.209	1515875.6
1992	622.3	-608.909	370770.17
1993	3274.3	2043.091	4174220.83
1994	684.7	-546.509	298672.087
1995	743	-488.209	238348.028
1996	2288.3	1057.091	1117441.38
1997	949.1	-282.109	79585.4879
1998	2224	992.791	985633.97
1999	842.3	-388.909	151250.21
2000	522.7	-708.509	501985.003
2001	6546.7	5315.491	28254444.6
2002	5897.2	4665.991	21771472
2003	0	-1231.209	1515875.6
2004	0	-1231.209	1515875.6
2005	0	-1231.209	1515875.6
2006	0	-1231.209	1515875.6
2007	0	-1231.209	1515875.6
2008	0	-1231.209	1515875.6
n=22	∑X=27086.6	∑x=0.0	∑x²=72815522.5

Mean of Citizen Overdraft

$$Mean = \frac{\sum X}{n}$$

$$Mean(\bar{X}) = \frac{27086.6}{22}$$

So Mean= 1231.20

Then Standard Deviation

$$\sigma = \sqrt{\frac{\sum x^2}{n}} \quad (\text{Where } x=X-\bar{X})$$

$$\sigma = \sqrt{\frac{72815522.5}{22}}$$

σ=1819.28

Coefficient of Variation

$$C.V. = \frac{\sigma}{\bar{X}}$$

$$C.V. = \frac{1819.28}{1231.20} \times 100$$

So C.V.=147.76%