

Global Financial Meltdown and Its Impact On The Indian Financial System

* Dr. N. Maruti Rao

** Iftikar M. Naikwadi

INTRODUCTION

Today, the world is suffering from “Made in US” financial meltdown product. So, GFM has become a global phenomenon and almost every country is facing this problem today. It is causing hollowness in the economies around the world. Worldwide, people are talking about GFM. GFM, an economic disease has left governments, economists and public sleepless as they are feeling the punch of the GFM. The industries are badly hit by GFM as demand has fallen down which is putting pressure on their bottom-line. Majority of the corporate houses are putting their new projects on hold. The problem of fiscal deficit is increasing due to various fiscal measures adopted by government, which may result in severe short fall of funds for implementing various infrastructure projects announced by the Government of India. Investors are losing their money as the stock market is falling like a pack of cards.

The confidence level of the Indian retail investor and Foreign Institutional Investors (FIIs) is at its lowest. The Mutual fund and Banking industries are among the major victims of GFM. With continuous fall in rate of interest on one hand and hesitation in extending corporate loans on the other hand, the bottom-line of banking industry is suffering. The MF industry is in deep crisis with steep fall in Assets under Management.

OBJECTIVES

The study aims to achieve the following objectives:

- 1) To study the impact of GFM on stock prices of few selected Indian companies and stock market.
- 2) To study the impact of GFM on fund raising by corporate India.
- 3) To study the impact of GFM on Banking, Insurance and MF Industry.
- 4) To suggest suitable strategies to minimize the impact of GFM.

METHODOLOGY

The information for the study has been collected from secondary sources. The study was descriptive and causal in nature. Data collected was analyzed by using data analysis tools such as percentage method. The period of study has been confined to June 2008 to December 2008.

REASONS FOR GLOBAL FINANCIAL MELTDOWN

The following are the key reasons for the global financial meltdown:

- 1) Collapse of American home prices, which have doubled between January 2000 and August 2006 and have fallen since 20 percent. More than 1% the of American households have defaulted on their mortgages. Up to a quarter of mortgages were sub-prime. The loans were financed by issuing of mortgage backed securities rather than traditional bank loans. The bonds were then sold to investors, pension funds and investment banks. Those buyers have since lost not just their anticipated interest but also much of their principal. The bonds were also used by lenders to raise money through repo agreement (a contract in which one finance company sells another a bond in return for cash and is then obliged to buy the same bond). In August 2007, a large number of households had defaulted in loan repayment resulting in intensive fall in bond prices and suddenly, lenders refused to accept them as collateral for loan.
- 2) The financial institutions/investment banks which have purchased those bonds at high prices recorded them in their balance sheet at the original purchase price rather than their present market value. They cooked their balance sheet to show more assets than liabilities to avoid bankruptcies.
- 3) Globalization of liquidity flows without adequate safeguards.
- 4) Favorable rating of poor quality debt and assets with uncertain value by Credit Rating Agencies.
- 5) The Dow Jones crash has also resulted in global meltdown.
- 6) Complex and structured derivatives and extensive use of securitization product.

To summarize, the US real estate market crash, high default rates on Sub-prime loans and Sub-prime mortgage backed securities are the main culprit in the global financial meltdown.

* Senior Lecturer, Kousali Institute of Management Studies, Karnatak University, Dharwad-580003, Karnataka.
E-mail : maruti_mn@rediffmail.com

** Visiting Professor, Kousali Institute of Management Studies, Karnatak University, Dharwad-580003, Karnataka

GLOBAL FINANCIAL MELTDOWN AND ITS IMPACT ON WORLD ECONOMY

Most of the countries around the world are under the influence of the global financial meltdown. US, Japan, Germany and Italy are major economies that are officially in economic recession. Across the globe, major stock indices dropped. Emerging equity markets lost about a third of their value in local currency terms and more than 40% of their value in U.S. dollar terms, owing to widespread currency depreciations. Developing countries' growth is expected to decline from 7.9% in 2007 to 4.5% in 2009. Investment growth is predicted to fall by 1.3% in developed countries and rising only 3.5% in developing countries versus 13% in 2007, mainly due to tighter credit conditions and increasing uncertainty. Weakening global demand is depressing oil prices; oil prices have now declined by over 70% from record USD 147 a barrel in July 2007, which has strengthened the US dollar. Oil Producing and Exporting Countries (OPEC) slashed oil output by 0.15 Crore barrels per day in November 2008. Similarly, metals and food prices have fallen from their recent peaks. While this eases the burden on households in advanced economies and emerging economies in Europe and Asia, it lowers growth prospects too. According to International Monetary Fund (IMF), US, Japan and Europe will see the worst economic contraction since World War II. The current recession has been compared to the 1929 great depression, 1907 banking crisis as well to the 1973 stagflation. Madhav Bhaskar, Director, New Horizon Investments in an interview with CNBC-TV18 has said that 60% of the world is already in recession.

GLOBAL FINANCIAL MELTDOWN AND ITS IMPACT ON THE INDIAN ECONOMY

In the age of globalization, no country can remain isolated from the fluctuations of the world economy. Heavy losses suffered by major International Banks is going to affect all countries of the world as these financial institutes have their investment interest in almost all countries and India is no exemption to it. The Prime Minister, Manmohan Singh had admitted that "a global financial meltdown was bound to affect our economy and it has". According to Suresh Tendulkar, Chairman, Prime Minister's Economic Advisory Council, the economic growth may slip to about 7% in 2008-09 in wake of the global financial meltdown. IMF projected a growth of 6.3% during 2008-09 versus 9% during 2007-08. The manufacturing sector's contribution to GDP was 5.29% in first quarter of 2008-09 as against 10.05% in 2007. Industrial production index declined from 9.9 % in the first half of 2007 to 4.1% in first half of 2008; a negative growth of 0.4% which has happened for the first time in 15 years. In October 2008, the growth rate of industrial output was 11.8 % compared to 12.2% growth in October 2007, which is 0.4% negative growth rate. Manufacturing comprising around 80% of the index of industrial production saw a negative growth of 1.2% in October 2008 (from 13.8% in 2007 to 12.6% in 2008). The intermediaries' goods and consumer goods saw a negative growth of 3.7% and 2.3% respectively in October 2008 from a growth of 13.9% and 13.7% respectively in October last year. Within consumer goods-consumer durables and consumer non-durables fell by 3% and 2% respectively in October 2008 as compared to 2007. Exports have witnessed a 15% drop during the first half of the year 2008. In October 2008, exports declined by 12% and there was a decline of 9.9% in November 2008. The Foreign Direct Investment (FDI) inflow was Rs 69786 Crores during 2007-08 (April to September) which was negative i.e. Rs 28894.5 Crores during 2008-09 (April to September). External commercial borrowing (ECB) was Rs 8118 Crores during 2007-08(April to September) which increased to Rs 9778.5 Crores during 2008-09 (April to September). Global rating agency Fitch had downgraded India's credit outlook. The downgrading had been made based on the government's fiscal position that has been adversely impacted by rising oil and fertilizer subsidy bills and other non-plan expenditure. The downgrading from stable to negative would make corporate borrowing costlier.

Indian companies have reported fall in revenue targets. The earnings and profits margins of the Indian corporate sector have come under considerable pressure in the third quarter of 2008-09. Indian Industries have reported that they are facing working capital problems; bills receivable collection had been delayed, bad debts were surging high and Capital expenditure plans have been placed behind or cancelled. The Associated Chambers of Commerce and Industry of India (ASSOCHAM) reported that there was 25% to 30% job cut across steel, cement, construction, real estate, aviation; IT enabled services and financial services. Indian stock markets are falling everyday; Rupee is weakening against the dollar. Business Schools are finding it difficult to place their students. According to government sources, collection of excise duty fell by 4.6% in October 2008. Fiscal deficit was expected to increase to 3.3% from the budgeted figure of 2.5%. Advance tax collection has declined by 22% to Rs. 42600 crores in the third quarter of 2008-09 from Rs. 54900 crores for the same period last year. Payment defaults and delay in payment for exporters shot up. The impact was also felt on the working class by means of wage compression and workloads, illegal retrenchment and worsening of job security, working conditions, etc. The country's employment scenario is getting bleaker as companies in banking, finance, aviation, tourism,

manufacturing and information technology have not only gone slow on new recruitments but also have been forced to resort to job cuts. Job losses have been across the sectors and from high end jobs to low end jobs.

MEASURES TAKEN BY GOVERNMENT OF INDIA AND RBI TO MITIGATE THE IMPACT OF GFM

In order to ease liquidity crunch faced by the Indian corporates, both RBI and the Government of India have taken a series of steps to inject liquidity in the banking system and to revive the economy. Some of the important measures include the following:

- a) Cash reserve ratio has been reduced to 5.5 basis points.
- b) Repo rate has been reduced to 7.5 basis points.
- c) Statutory Liquidity ratio was reduced to 24 %.
- d) Interest rate ceiling on Non Resident Indian (NRI) deposits was increased by 50 basis points.
- e) Guarantee cover for loan to micro enterprises has been increased to 85%.
- f) Reverse Repo rate reduced to 4% from 5%.
- g) 4% reduction in central value added tax on non-petroleum products.
- h) To boost export from India, the government had announced cut in interest rate for export finance (pre and post shipment export credit rates).
- i) Duty Exemption pass book scheme is reintroduced to encourage producers to focus on market abroad and duty drawback rate increased by 3%.
- j) External commercial borrowing norms were relaxed up to Rs.2250 Crores for all sectors.
- k) FDI cap in insurance has been increased from 29% to 49%.

The above measures provided greater incentives for exporters and players in real estate, logistic, cement, steel, infrastructure, textiles and NBFCs, etc.

GLOBAL FINANCIAL MELTDOWN AND ITS IMPACT ON THE INDIAN FINANCIAL SYSTEM

The Indian financial system has been badly affected by the global financial meltdown. The currency market, stock indices, money market and the mutual fund industry have been hit by the meltdown. The companies are finding it hard to raise fund from the financial market, most of the companies are unable to declare dividend due to financial crunch, Foreign institutional investors are withdrawing huge fund from the market. In corporate bond market, the risks of Indian corporate measured by the spread on bonds have increased significantly in recent months. The Indian rupee has depreciated in forex market and touched an all time low. The government bond markets have been in a mixed mode getting both favourable and non-favourable drivers.

IMPACT ON STOCK MARKET

The global financial meltdown has had a deep impact on the Indian stock market as it was evident from the fact that Bombay Stock Exchange benchmark index, which touched a high of about 21,200 in January, slipped to less than 10,000. In other words, the Sensex has fallen down by more than 50%. There was deterioration in the market capitalization of the companies. The daily turnover on the stock exchanges has drastically fallen down. The trading on bourses was also marked by excessive volatility.

TABLE-1 : BSE-SENSEX PERFORMANCE

Month -2008	Open	High	Low	Close	Adjusted Close
January	20,393.10	21,206.77	15,332.42	17,648.71	17,648.71
February	17,820.67	18,895.34	16,457.74	17,578.72	17,578.72
March	17,227.56	17,227.56	14,677.24	15,644.44	15,644.44
April	15,771.72	17,480.74	15,297.96	17,287.31	17,287.31
May	17,560.15	17,735.70	16,196.02	16,415.57	16,415.57
June	16,591.46	16,632.72	13,405.54	13,461.60	13,461.60
July	13,480.02	15,130.09	12,514.99	14,355.75	14,355.75
August	14,064.26	15,579.78	14,002.43	14,564.53	14,564.53
September	14,412.99	15,107.01	12,153.55	12,860.43	12,860.43
October	13,006.72	13,203.86	7,697.39	9,788.06	9,788.06
November	10,209.37	10,945.41	8,316.39	9,092.72	9,092.72
December	9,162.94	10,188.54	8,467.43	9,690.07	9,647.31

Source: www.bseindia.com

The Table-1 indicates that the Sensex, which was trading at 21206.77(high) in the month of January 2008 fell down to 16632.72(high), in June 2008, a fall of 22% due to fear among investors in anticipation of stringent inflationary control measures. The Sensex, which was trading at 16632.72(high) in June 2008 fell to

10188.54(high) in December 2008, a fall of 39% during the period wherein the impact of the global financial meltdown was at its peak. To conclude, the average fall in Sensex is much higher during the period July to December 2008 when impact of GFM was at its peak, as against inflationary period of January to June 2008.

TABLE-2 : DAILY TURNOVER AND MARKET CAPITALISATION OF BSE-SENSEX

Month -2008	Average Daily Turnover (Rs.cr)	Percentage change	Market Capitalization (Rs.cr)	Percentage change (base – January)
January	19,441		5,295,387	
February	13,342	-31.4	5,419,942	2.4
March	14,056	-27.7	4,858,122	-8.3
April	13,561	-30.2	5,442,780	2.8
May	13,896	-28.5	5,098,873	-3.7
June	12,592	-35.2	4,103,651	-22.5
July	12,862	-33.8	4,432,427	-16.3
August	11,713	-39.8	4,472,461	-15.5
September	12,489	-35.8	3,900,185	-26.3
October	10,810	-44.4	2,820,388	-46.7
November	9,618	-50.5	2,653,281	-49.9

Source: www.bseindia.com

The Table-2 depicts that there was an erosion of market capitalization to the extent of 50 % by November 2008 end. The market capitalization erosion had started during the period when global financial meltdown was at its peak in the month of July 2008. The table also exhibits that the daily average turnover fell down drastically during the same period. It indicates that investors have lost confidence in the stock market and there was fear in the mind of investors' about losing their money if they invest during this period. To conclude, the cumulative market capitalization of Indian shares, which was 5.30 crores in January 2008, has slumped to 2.65 crores in December 2008. In other words, 50% of the market capitalization of the companies was dried up due to GFM. With the fall in the turnover in equity trading, revenue of broking firms has fallen to new lows. Brokerage firms resort to layoffs and pay cuts.

Indian stock market touched new heights due to the heavy investments by Foreign Institutional Investors during the last two years. However, when the parent companies of these investors (based mainly in US and Europe) found themselves in a severe credit crunch as a result of the sub-prime crisis, the only option left with these investors was to withdraw their money from the Indian Stock Markets to meet liabilities at home.

TABLE-3 : NET INVESTMENT BY FIIs IN INDIAN STOCK MARKET

Month (2008)	FII (Rs. In Crores)
January	-13035.70
February	2262.60
March	-130.40
April	-1074.80
May	-5011.50
June	-10095.80
July	-1836.80
August	-1211.70
September	-8278.10
October	-15347.30
November	-2598.30
December	1750.10

Source: www.sebiindia.com

The Table-3 reveals that withdrawal of money by FIIs during March and April 2008 was 130.40 and 1074.80 respectively, whereas it was highest from July to November 2008 (i.e. 1836.80, 1211.70, 8278.10, 15347.30 and 2598.30 respectively) during which the impact of global financial meltdown was very intense. The table also shows that the highest withdrawal has taken place in the month of January during which the controversial issue of participatory notes created havoc in the market. There was heavy withdrawal of money from the market by FIIs during May and June, during which the inflation was at its peak which has created fear in the mind of FIIs about stringent inflationary control measures by government and RBI. But the trend of withdrawal continued even in the subsequent months (July 2008 onwards) also, during which inflation and p-notes issue were of no relevance.

To conclude, foreign institutional investors left the Indian stock market in droves, selling of Rs.43200 Crores worth of shares in the first nine months of 2008, which is reversal of last year's (2007) record inflow of Rs.77400 Crores into the Indian stock market. FIIs are the main culprits in shaving over 50% of BSE Sensex leaving

domestic investors deeply buried. It indicates that the global financial meltdown has impacted foreign institutional investment. Some analysts predict that the final outflow for 2008 could reach Rs.60750 Crores. The data available on www.sebi.gov.in with regard to lending of shares clearly suggest that FIIs have lent huge stock in the month of October to December 2008.

IMPACT ON STOCK PRICES

TABLE-4 : DELHI LAND AND FINANCE (DLF) LTD'S PRICE MOVEMENT ON BSE

Month	Closing Price	BSE Realty	% change in Price	% change in Index
Jan-08	812.55	9,871.06		
Feb-08	780.55	9,565.67	-3.93822	-3.09379
Mar-08	646.50	7,554.80	-20.4357	-23.4652
Apr-08	705.25	8,505.49	-13.2053	-13.8341
May-08	587.45	7,008.66	-27.7029	-28.9979
Jun-08	396.20	4,543.47	-51.2399	-53.9718
Jul-08	509.30	5,079.01	-37.3208	-48.5465
Aug-08	493.30	4,995.25	-39.2899	-49.395
Sep-08	352.40	3,508.77	-56.6304	-64.454
Oct-08	220.25	1,978.24	-72.894	-79.9592
Nov-08	198.25	1,561.01	-75.6015	-84.186
Dec-08	281.90	2,274.13	-65.3068	-76.9616
Jan-09	177.20	1,668.08	-78.1921	-83.1013

Source: www.bseindia.com

The Table-4 exhibits that the average decline in Bombay Stock Exchange (BSE) Realty during the period of July 2008 to January 2009 was 61.62% (as against the period January 2008 to June 2008) and the average decline in Delhi Land and Finance Ltd. (DLF) share price was 51.29% during the same period. It clearly gives a single that realty index in general and DLF in particular are the major victims of global stock market meltdown.

The Table-5 depicts that the average decline in Banking Index during the period of July 2008 to January 2009 was 32.74% (as against the period January 2008 to June 2008) and the average decline in ICICI Bank share prices was 44.15 % during the same period. Thus, we conclude here that average fall in ICICI Bank Scrip is higher than the Banking Index. This could be attributed to GFM and panic among investors with regard to the bank's overseas operations.

TABLE-5 : INDUSTRIAL CREDIT AND INVESTMENT CORPORATION OF INDIA (ICICI) BANK'S PRICE MOVEMENT ON BSE

Month	Closing Price	BSE-Bankex	% change in Price	% change in Index
Jan-08	1,145.65	10,713.91		
Feb-08	1,090.95	10,113.73	-4.77458	-5.60188
Mar-08	770.10	7,717.61	-32.7805	-27.9664
Apr-08	879.40	8,819.68	-23.2401	-17.6801
May-08	788.30	7,714.59	-31.1919	-27.9946
Jun-08	630.20	5,915.98	-44.9919	-44.7823
Jul-08	634.85	6,516.41	-44.586	-39.178
Aug-08	671.50	7,009.69	-41.387	-34.5739
Sep-08	534.85	6,478.85	-53.3147	-39.5286
Oct-08	399.35	5,011.24	-65.1421	-53.2268
Nov-08	351.40	4,645.40	-69.3275	-56.6414
Dec-08	448.35	5,454.54	-60.865	-49.0892
Jan-09	416.30	4,900.06	-63.6625	-54.2645

Source: www.bseindia.com

TABLE-6 : TATA MOTOR'S PRICE MOVEMENT ON BSE

Month	Closing Price	BSE-Auto	% change in Price	% change in Index
Jan-08	706.15	4,832.48		
Feb-08	700.25	4,887.17	-0.83552	1.131717
Mar-08	623.45	4,524.77	-11.7114	-6.36754
Apr-08	662.20	4,726.00	-6.22389	-2.20342
May-08	576.90	4,355.76	-18.3035	-9.86491
Jun-08	426.50	3,585.62	-39.6021	-25.8017
Jul-08	403.25	3,679.51	-42.8946	-23.8588
Aug-08	440.35	4,001.23	-37.6407	-17.2013
Sep-08	344.20	3,674.98	-51.2568	-23.9525
Oct-08	171.80	2,685.62	-75.6709	-44.4256

Nov-08	136.35	2,330.56	-80.6911	-51.773
Dec-08	159.05	2,444.71	-77.4765	-49.4109
Jan-09	149.65	2,500.23	-78.8076	-48.262

Source: www.bseindia.com

The Table-6 exhibits the average decline in BSE Auto Index during the period of July 2008 to January 2009 was 32.11% (as against the period January 2008 to June 2008) and the average decline in Tata Motors share prices was 58.14% during the same period. Thus, we conclude here that the impact of GFM is much higher in quantum on Tata Motors Scrip as compared to BSE-Auto Index.

TABLE-7 : TATA STEEL'S PRICE MOVEMENT ON BSE

Month	Closing Price	BSE-Metal	% change in Price	% change in Index
Jan-08	733.50	15,312.92		
Feb-08	801.55	16,739.52	8.980286	9.316316
Mar-08	693.15	14,022.56	-5.75799	-8.42661
Apr-08	817.60	16,114.40	11.16247	5.234012
May-08	902.90	16,914.63	22.76003	10.45986
Jun-08	728.35	13,207.30	-0.97213	-13.7506
Jul-08	654.95	12,912.61	-10.9517	-15.6751
Aug-08	600.35	12,348.02	-18.3753	-19.3621
Sep-08	425.60	8,992.06	-42.1346	-41.278
Oct-08	210.10	5,367.60	-71.4344	-64.9472
Nov-08	150.95	4,383.38	-79.4765	-71.3746
Dec-08	216.85	5,214.35	-70.5167	-65.948
Jan-09	184.65	5,100.14	-74.8946	-66.6939

Source: www.bseindia.com

We can note from the Table-7 that average decline in BSE Metal Index during the period of July 2008 to January 2009 was 49.56% (as against the period January 2008 to June 2008) and the average decline in share prices of Tata Steel was 55.22% during the same period. The impact of GFM on Tata steel was higher than industry.

The Table-8 exhibits that the average decline in the Bombay Stock Exchange Information Technology (BSE IT) Index during the period of July 2008 to January 2009 was 26.44% (as against the period of January 2008 to June 2008) and the average decline in Infosys share prices was 26.87% during the same period. In other words, the impact of GFM on IT industry and Infosys is the same.

TABLE-8 : INFOSYS TECHNOLOGY'S PRICE MOVEMENT ON BSE

Month	Closing Price	BSE-IT	% change in Price	% change in Index
Jan-08	1,503.90	3,710.11		
Feb-08	1,546.85	3,862.45	2.855907973	4.106078
Mar-08	1,430.15	3,547.61	-4.903916484	-4.37992
Apr-08	1,753.75	4,261.93	16.61347164	14.87341
May-08	1,957.55	4,643.79	30.16490458	25.16583
Jun-08	1,734.75	4,019.82	15.35008977	8.347731
Jul-08	1,583.30	3,689.57	5.279606357	-0.55362
Aug-08	1,748.50	3,966.75	16.26437928	6.917315
Sep-08	1,397.55	3,095.08	-7.071613804	-16.5771
Oct-08	1,381.65	2,861.94	-8.128864951	-22.861
Nov-08	1,240.60	2,558.94	-17.50781302	-31.0279
Dec-08	1,117.85	2,227.96	-25.66992486	-39.949
Jan-09	1,305.50	2,236.51	-13.19236651	-39.7185

Source: www.bseindia.com

TABLE-9 : HINDUSTAN UNILEVER (HU) LTD'S PRICE MOVEMENT ON BSE

Month	Closing Price	BSE-FMCG	% change in Price	% change in Index
Jan-08	206.50	2,167.34		
Feb-08	227.35	2,274.39	10.09685	4.939234
Mar-08	228.70	2,290.07	10.75061	5.662702
Apr-08	249.50	2,461.38	20.82324	13.56686
May-08	237.15	2,427.76	14.84262	12.01565
Jun-08	206.10	2,080.33	-0.1937	-4.0146
Jul-08	239.70	2,139.18	16.07748	-1.29929
Aug-08	245.40	2,215.60	18.83777	2.226693
Sep-08	251.55	2,160.76	21.81598	-0.3036
Oct-08	221.95	1,799.83	7.48184	-16.9567
Nov-08	236.20	1,936.60	14.38257	-10.6462
Dec-08	250.25	1,987.38	21.18644	-8.30327
Jan-09	261.20	2,032.69	26.4891	-6.21268

Source : www.bseindia.com

It is worthy to note from Table-9 that the average decline in Bombay Stock Exchange Fast Moving Consumer Goods (BSE FMCG) during July 2008 to January 2009 was 10.72% (as against the period January 2008 to June 2008) whereas there was average increase in HUL's share prices by 7.91%. It clearly indicates that HUL was not affected by GFM.

TABLE-10 : ASSOCIATED CEMENT COMPANIES (ACC) LTD'S PRICE MOVEMENT ON BSE

Month	Closing Price	BSE-Sensex	% change in Price	% change in Index
Jan-08	782.65	17,648.71		
Feb-08	792.70	17,578.72	1.284099	-0.39657
Mar-08	826.10	15,644.44	5.551651	-11.3565
Apr-08	758.65	17,287.31	-3.0665	-2.04774
May-08	660.65	16,415.57	-15.5881	-6.98714
Jun-08	522.50	13,461.60	-33.2396	-23.7247
Jul-08	584.30	14,355.75	-25.3434	-18.6584
Aug-08	561.65	14,564.53	-28.2374	-17.4754
Sep-08	611.65	12,860.43	-21.8488	-27.131
Oct-08	493.40	9,788.06	-36.9578	-44.5395
Nov-08	406.25	9,092.72	-48.093	-48.4794
Dec-08	477.90	9,647.31	-38.9382	-45.337
Jan-09	504.85	9,424.24	-35.4948	-46.601

Source: www.bseindia.com

The Table-10 shows that the average decline in BSE Index during the period of July 2008 to January 2009 was 30.29% (as against the period of January 2008 to June 2008) and the average decline in ACC's share prices was 28.2% during the same period. Thus, we conclude here that there is no significant difference between the impact of GFM on ACC and BSE sensex.

PRIMARY MARKET AND GFM

For the past few years, the two most preferred methods of raising money by the companies were stock markets and external borrowings. Stock market is bleeding everyday and it is quite difficult to raise money from the primary market. Decline in foreign direct investment is affecting the growth prospects in the equity market.

TABLE-11 : INITIAL PUBLIC OFFER

Year	Number of Initial Public offer
2004-05	34
2005-06	102
2006-07	85
2007-08	91
2008-09 (Jan.09)	15

Source: Securities Exchange Board of India

The companies are postponing their Initial Public Offerings (IPO). The Table-11 indicates that the 15 IPOs hit the primary market from April to June 2008, whereas not a single company approached primary market with IPOs during the period of July 2008 to January 2009.

TABLE-12 : RIGHT ISSUES

Year	Number of Right Issues
2004-05	26
2005-06	36

2006-07	38
2007-08	34
2008-09(Dec.08)	28

Source: Securities Exchange Board of India

Few companies such as Suzlon Energy have cancelled their right issue due to poor response from shareholders.

TABLE-13 : EXTERNAL COMMERCIAL BORROWINGS BY INDIAN COMPANIES

Month	Automatic Route	Approved Route	Total	% change (base Year)
January 2008	135.51	53.25	188.76	
February 2008	76.08	10.13	86.21	-55
March 2008	323.78	123.91	447.69	138
April 2008	69.70	46.38	116.08	-39
May 2008	98.9	28.72	127.60	-33
June 2008	75.24	86.28	161.52	-15
July 2008	3.62	208.56	212.18	13
August 2008	89.41	70.93	160.33	-16
September 2008	37.02	246.47	283.49	51
October 2008	32.18	80.34	112.52	-41
November 2008	152.08	18.16	170.25	-10
December 2008	158.21	8.70	166.92	-12

Source: Reserve bank of India

Regarding external borrowing from world markets, this option has also become difficult. India borrowed Rs.11278792605 Crores from foreign lenders during the period Jan 2008 to June 2008 whereas, the borrowings for the period of July 2008 to December 2008 is Rs. 11057023312 Crores. In other words, there is a decline in borrowings under the influence of GFM.

BOND MARKET AND GFM

The Table-14 reveals that there was a substantial fall in trading volume in bond market. However, volatility and falling equity market have injected confidence in bond market as ten year bond yield translated into price movement and has registered a steep decline in yield from 8.093% on 2nd June 2008 to 5.356% on 2nd January 2009.

TABLE-14 : TRADING VOLUME IN BOND MARKET

Month	Trading Volume (Rs. Crores)	% change (base Month)
April-08	10072.97	
May-08	10055.58	(0.2)
June-08	10163.58	(0.9)
July-08	6536.13	(35.1)
August-08	4249.55	(57.8)
September -08	9577.41	(4.9)
October -08	7803.19	(22.5)
November -08	5189.23	(48.5)
December -08	NA	

Source: Securities Exchange Board of India

The benchmark ten year bonds have gained from Rs.98 to Rs.125 with potential for more rises. Treasury bill yield also increased. Investors are shifting from equity market to bank deposits and bond market. The prices of the bonds have increased in the third quarter of 2008-09. Banks carried huge mark to market losses on their bond portfolios up to the half of the year ending September 2008. But, in third quarter ending October 2008, banks witness trading profit on bond portfolios and near complete elimination of mark to market losses.

DEBT MARKET AND GFM

The Table-15 exhibits that the GFM has a positive impact on the Indian debt market. The market capitalization of debt which was Rs.2168650.80crores in April 2008 increased to Rs.2668915.85 Crores in December 2008, an increase of 23% over a period of nine months. As debt market assures fixed returns, with primary market doing very badly, positive impact can be noticed in performance of debt market.

TABLE-15 : MARKET CAPITALISATION OF DEBT

Month	Market Capitalisation (Rs. Crores)	% change (base Month)
April-08	2168650.80	
May-08	2192183.11	1.1
June-08	2194961	1.2
July-08	2186726.67	0.8
August-08	2225594.86	2.6

September -08	2254265.46	4
October -08	2329604.27	7.4
November -08	2442569.19	12.6
December -08	2668915.85	23.1

Source: www.bseindia.com

TABLE-16 : DAILY TURNOVER OF DEBT

Month (2008)	Daily Turnover-NSE (Rs. In crore –rounded)
April	4000
May	5000
June	2100
July	2200
August	5800
September	6800
October	6600
November	8200
December	13800

Source: www.bseindia.com

There was a rally in debt market. As is evident from Table-16, the debt market saw a substantial jump in daily turnover during the GFM period. The daily turnover has increased from Rs.4000crores in April 2008 to Rs. 13800 crores in December 2008; which is a jump of 245%.

IMPACT ON DERIVATIVES MARKET

As speculators anticipated market fall in the future, they entered into the derivative contracts in huge quantum between June 2008 and October 2008. It clearly gives a signal that speculators are using the derivative market to book the profit rather than hedging the risk. The National Stock exchange (NSE) has revised the market lot for 243 stocks in the derivatives segment. There was an upward revision, which will affect the retail investors and high net worth individual participation in the derivatives segment which is in its nascent stage in India. The retail investors may not be in a position to fork out higher margin requirement due to rise in market lot.

TABLE-17 : MONTHLY TURNOVER IN DERIVATIVE MARKET

Month	Turnover (Rs. Crores)		% change (base Month)	
	Index Option	Stock Future	Index Option	Stock Option
April-08	280100.25	336900.90		
May-08	267640.70	380160.65	(4.4)	(12.8)
June-08	377939.01	375986.71	(34.9)	(11.6)
July-08	395379.96	382600.80	(41.2)	(13.6)
August-08	300448.85	324010.86	(7.3)	(3.8)
September -08	380197.75	332728.52	(35.7)	(1.2)
October -08	324961.66	239263.85	(16)	(29)
November -08	256949.74	187211.26	(8.3)	(44.4)
December -08	269997.31	230465.57	(3.6)	(31.6)

Source: www.bseindia.com

IMPACT ON MUTUAL FUNDS

Withdrawal of money by mutual fund investors in a big way has created a liquidity crisis for Asset Management Companies, which are struggling to meet sharp increase in redemption requests. The valuation of assets held by the Mutual fund companies saw a significant decline. In other words, the drastic fall in stock market has eroded the asset base of top Indian mutual fund companies substantially. Lackluster inflow of fresh cash has further added to their woes. Even new schemes launched in the recent past have failed to attract investors, which seem to have left the industry struggling for funds. Assets under Management (AUM) fell by 25% to Rs. 432000 Crores in October 2008. The mutual industry is crying for liquidity support. The table given below exhibits the AUM position of top mutual fund companies in India.

The Table-18 indicates that there was a decline in the value of AUM across various companies from Rs 284869 crores in the month of October 2008 to Rs 274571 crores for the month of November 2008. Hence, we conclude that there is negative impact on AUM because of GFM.

TABLE-18 : AVERAGE ASSETS UNDER MANAGEMENT OF MUTUAL FUND COMPANIES

MF Company	Average AUM		% change
	October 2008 (Rs. In crores)	November 2008 (Rs. In crores)	
Reliance	71094	67816	-4.6

Kotak Mahindra Asset Management company	14916	14474	-2.96
Tata Asset Management Ltd	17000	17537	3.16
State Bank of India Mutual Fund	24727	23168	-6.3
Unit Trust of India Asset Management. Company	38284	38358	0.19
Birla Sun Life Asset Management Company	34187	31901	-6.69
ICICI Prudential Asset Management, Company	39182	37055	-5.43
Housing Development and Finance Corporation Asset Management Company	45479	44262	-2.68

Source: 1) www.economicstimes.com
2) www.indiatimes.com

TABLE-19 : PERFORMANCE OF MUTUAL FUNDS

Mutual Fund	Diversified	Sector	Tax	Bond	Liquid
Reliance	(23.4)	(23.5)	(38.7)	(13.0)	(31.4)
HDFC	(21.1)	-	(23.6)	(8.7)	(15.7)
ICICI Prudential	(24.9)	(24.3)	(24.4)	(13.6)	(19.8)
UTI	(21.6)	(21.4)	(17.2)	(7.5)	(26.9)
Birla sun life	(16.2)	(23.3)	(23.8)	(11.9)	(13.0)
Franklin Templeton	(23.2)	(13.8)	(19.1)	(23.6)	(33.1)
SBI	(25.2)	(24.9)	(17.8)	(29.1)	115.3
Tata	(23.9)	-	(11.2)	(22.5)	35.1
DSP Blackrock	(22.8)	(24.1)	(21.8)	(20.9)	(35.3)
Kotak Mahindra	(12.8)	(19.4)	(23.4)	(7.6)	(40.9)

* Return from September to October 2008.

Source: Business line newspaper

The analysis of Table-19 reveals the performance of various types of MFs. It can be noted here that diversified and sectoral funds are performing badly as there is negative growth of 21.51% and 21.84% respectively. Tax saving and bond funds are not behind in poor performance with negative growth of 22.1% and 15.84% respectively. The liquid fund is only good performer here with positive growth of 14.79%.

IMPACT ON CURRENCY MARKET

For the Indian rupee, 2008 was not a good year. It was a year of extreme volatility. The rupee was valued at Rs.46 in August 2006 which was valued at Rs.41 in August 2007, an appreciation in value of rupee by 11%. The rupee was valued at Rs. 39.44 in December 2007 and at Rs.39.30 in January 2008. Importers were rejoicing and exporters were crying. But the global financial meltdown has resulted in depreciation of the Indian rupee. Foreign Exchange (Forex) reserve of India was eaten by the volatility in the form of payment of oil bill. Now, importers were crying and exporters were rejoicing. The rupee has touched a highest level of Rs.50.12 on 20th November 2008. The table given below exhibits the volatility in exchange rate.

TABLE-20 : EXCHANGE RATE VOLATILITY

Date	Exchange Rate Per US Dollar	% change
8/8/2008	42.05	
22/8/2008	43.32	(3.02)
5/9/2008	44.63	(3.02)
19/9/2008	45.71	(2.42)
3/10/2008	47.01	(2.84)
17/10/2008	48.88	(3.98)
31/10/2008	49.68	(1.64)
14/11/2008	48.78	(1.81)
20/11/2008	50.12	(2.75)
28/11/2008	49.55	(1.14)
12/12/2008	48.2	(2.72)
26/12/2008	48.42	(0.46)

www.rbiorg.in

As already discussed, FIIs are selling their stocks heavily and the money which FIIs get after selling their stocks needs to be converted into dollars before they can send it home, and hence, the demand for dollars has suddenly increased. As more and more FIIs are buying dollars, the rupee is losing its strength against the dollar.

The Table reveals that the process of rupee depreciation started immediately after symptoms of global financial meltdown were observed in India. During the above said period, the rupee touched an all time high level of 50.12 on 20th November 2008 and the lowest level was 42.05 on 8th August 2008. The average rupee value was Rs.47.20. To conclude, withdrawal of fund by FIIs from the Indian stock market resulted in shortage of dollar. The shortage of dollar led to the rupee becoming weaker. Here, we may conclude that the depreciation in rupee value

has resulted in increase in beta of securities. It implies that scrips are also a victim of GFM.

The RBI has taken number of measures to arrest the depreciation of rupee, which includes release of Foreign exchange to purchase oil bonds with the objective to ensure exchange rate stability. This has resulted into shrinking of forex reserve by Rs.225000 Crores. According to Mr. Ahheek Baruah, Chief Economists, HDFC Bank, rupee dollar exchange rate may be in the range of 49 to 51 in future. The depreciating rupee will have a negative impact on the country's balance of payment position in future but will also have a negative impact on domestic importing companies. However, domestic exporting companies such as Infosys Technology, etc. have been benefited by the falling rupee. The fall in rupee has resulted in shrinkage of forex reserve of India.

IMPACT ON BANKING INDUSTRY

The global financial meltdown has resulted into liquidity crisis in the banking system. This has resulted into lack of additional bank credit for corporates. Corporates are complaining about lack of additional bank credit. The RBI has pumped Rs. 200000 crores into the banking system to improve liquidity position. The shaky job market and pink slips in some of the sectors of the economy has increased the default risk rate. The banks fear that non-performing assets may increase in future. The possibility of non attainment of Non Performing Assets (NPA) guidelines stipulated by RBI is very high. The capital adequacy ratio of banks has increased from 9% to 13%, which indicates inefficiency in use of capital. Banks are preferring to invest in bonds and debentures instead of corporate lending. Banks have parked huge fund in government securities as it is evident form the following table

Date	Fund Parked in Government securities (Rs. Crores)
10 th November	25
15 th November	45
20 th November	27545

Source: Business Line Newspaper

The banks have reduced the interest rate on deposit. This has resulted in slowdown in deposits. The year on year deposits growth rate is 20.5% as in November 2008 as against 25.3% in the same period last year. According to the RBI sources, large numbers of depositors are moving from private sector banks to public sector banks during the last few months. Due to increase in deposits with banks, the banks are demanding increase in insurance cover for deposits. Presently, deposit with banks up to Rs.100000 per depositor was covered by insurance coverage offered by Deposit Insurance and credit Guarantee Corporation, a RBI wing.

CONCLUSIONS

- 1) The study reveals that the BSE-Sensex which stood at 21207 in January 2008 fell to 10189 in December 2008, resulting into erosion of BSE-sensex by 52% under the influence of GFM.
- 2) The study exhibits that the daily turnover during the month of June was Rs.19441 crores which has fallen to Rs.9618 Crores in November 2008, a 50% fall in daily turnover giving a signal that investors have lost confidence in stock market and they are moving away from it.
- 3) Market Capitalization of Indian companies in the month of January 2008 was Rs.5295387 crores which fell to Rs.2653281 crores in December 2008, an erosion of 50% in market capitalization. Indian companies have become poor under the influence of GFM.
- 4) It was found that there was a fall in value of investment held by Foreign institutional Investors due to depreciating rupee value and falling BSE-Sensex.
- 5) The study also reveals that the worst affected companies are Tata motors, Tata steel, DLF, ICICI Bank as there was deep fall in prices of shares of these companies. The fall is more than 50%. Hindustan Unilever Ltd was able to withstand the menace of GFM as its price saw a 6% jump.
- 6) The Indian IPO market saw the release of only 15 IPOs from January 08 to December 2008 and most of the IPOs had hit the market before June 2008. No company has come out with IPOs from July onwards. Very few companies have come out with rights issues during the GFM period. Few companies who have come out with rights issue cancelled their offer due to poor response from investors.
- 7) Trading volume in bond market fell by 49% by the end of November 2008.
- 8) Indian debt market saw jump in trading volume as daily turnover increased from Rs. 4000 crores in April to Rs13800 crores in December 2008.
- 9) There was a jump in trading in derivatives market from May to July 2008 as the investors have anticipated worst situation in the global financial market including Indian stock market. It indicates that speculators were using derivatives products not only to hedge the risk but also to book profit in a falling market. The trading in derivatives market saw a sharp fall during October, November and December 2008.

10) Mutual Fund is the worst affected sector of the Indian economy, as diversified, sectoral, tax saving and bond funds have shown negative growth.

11) The foreign investors have also withdrawn their investment to support their parent companies. As a result, the Indian Rupee has depreciated in the forex market, and has touched an all time low.

12) The Indian banking industry is banking on traditional banking tools such as loan to value ratio, debt service ratio, loan purpose, verification of documentary evidences of income and assets of borrowers, continuous monitoring process, etc. and Indian banking culture which is different from the US banking system has saved Indian banking system from collapse.

13) Derivatives market which was at a nascent stage in India is also responsible for saving the Indian economy from collapse. Anyhow, India has to adopt better valuation methods of derivatives products.

SUGGESTIONS

1) Short selling should be banned in India as there are chances that the speculators may use this instrument to make money out of the global financial meltdown.

2) Indian banks should use credit derivatives products i.e. securitization products carefully as these products are the main route cause for collapse of the US financial system.

3) Time has come to implement rupee convertibility without any delay which will help RBI to cool down the falling rupee. This will ensure easy flow of foreign capital into India. In other words, it can stimulate investment by reducing cost of capital. By allowing residents to diversify their portfolios into foreign assets, convertibility can reduce the variability of their income and also diffuse the risk of an asset price bubble. It also helps in creating competitive environment in the Indian financial sector.

4) To overcome the impact of the global financial meltdown, the American and European banks, Bank of England, Swiss central bank have cut borrowing cost more aggressively. In US, Japan, Europe and UK, the interest rates are nearing to 1.5%. In India, still there is scope for cut in interest rate. Further, the risk weight on small home loans should be relaxed to boost demand for home loan product. RBI should also consider reduction in repo and reverse repo rates by another 25 to 50 basis points. Further, there should be reduction of SLR by 1% to 2% and lowering of CRR by 50 basis points to ensure adequate liquidity and reasonable cost of funding.

5) RBI should give guarantee for all bank deposits for a period of two years to maintain depositors' confidence in the banking sector.

6) As investors are looking for safe and steady income investment option and banks have enough liquidity, they should think of cutting deposit rates below repo rate. Further, they should deploy surplus fund with RBI at reverse repo rate to improve their bottom-line.

7) To ensure liquidity of mutual funds, all close ended schemes should be listed on the stock exchange. The need of the hour is to prohibit premature redemption of close ended schemes. In other words, new guidelines to ban withdrawal from close ended mutual funds schemes needs to be introduced.

8) To deal with current global financial meltdown, the RBI has to design a sound foreign exchange management system in order to facilitate greater foreign exchange inflow. This can be done by increasing FDI limits across the sectors and increasing interest rate on NRI deposits. RBI in its mid term review of monetary policy has quoted that the government of India should go for bailout of Indian stock exchange i.e. buying equities to stabilize the market on the lines of Hong Kong, Russia and Taiwan. In researchers' opinion, RBI should not go for bailout as it was an unproductive investment.

9) Banks have been allowed by RBI for rescheduling of loan sanctioned to real estate companies up to June 2009. But there are no clear guidelines with regard to moratorium period of repayment and interest on rescheduled loans (Rescheduling in nothing but extending the repayment period). The period of extension should be two years. The extension should be on original terms and conditions of the sanctions and no increase in rate of interest. Rescheduling also help banks to prevent shifting of standard category loans to NPAs category. Even commercial real estate players involved in IT parks, hotels, Special Economic Zones (SEZ) should be given the loan rescheduling option.

The researchers are of the view that during market fall, the market lot of derivatives segment should have been kept as it is or it should have been reduced instead of increasing the same or the Securities Exchange Board of India (SEBI) should introduce index wise uniform market lot size for example sensex stocks 200, mid cap stock 1000. If various regulatory bodies and government do adopt the above said suggestions, it may prove to be an effective weapon to fight out GFM.

(Contd. on page 30)

and Development 38(4).

Brooks, C. (2002). *Introductory Econometrics for Finance*, Cambridge: University Press.

Chakrabarti, R. (2001). "FII Flows to India: Nature and Causes." *Money and Finance, ICRA Bulletin*: 61-81.

Clark, J. and E. Berko (1997). "Foreign Investment Fluctuations and Emerging Market Stock Returns-The Case of Mexico." Reserve Bank of New York Staff Reports No. 24.

Froot, K. A., et al. (2001). "The Portfolio Flows of International Investors." *Journal of Financial Economics* 59: 151-193.

Goetzmann, W. and M. Massa (2003). "Index Funds and Stock Market Growth." *Journal of Business* 76: 1-28.

Gordan and Gupta (2003). "Portfolio Flows into India: Do Domestic Fundamentals Matter." IMF Working Paper No. 03/20.

Granger, C. W. J. (1969). "Investigating Causal Relation by Econometric and Cross-sectional Method." *Econometrica* 37: 424-438.

Griffin, J. M., et al. (2004). "Are Daily Cross-border Equity Flows Pushed or Pulled?" *The Review of Economics and Statistics* 86: 641-657

Kim, W. and S. Wei (1999). "Foreign Portfolio Investors Before and During a Crisis." OECD Economics Department Working Papers No. 210.

Lakonishok, J., et al. (1992). "The Impact of Institutional Trading on Stock Prices." *Journal of Financial Economics* 51: 77-96.

Merton, R. C. (1987). "A Simple Model of Capital Market Equilibrium with Incomplete Information." *Journal of Finance* 42: 483-510.

Mukherjee, P., et al. (2002). "Foreign Institutional Investment in the Indian Equity Market: An Analysis of Daily Flows During January 1999-May 2002." *Money and Finance, ICRA Bulletin* 2: 54-83.

Report of Government of India constituted Expert Group on Encouraging FII Flows and Checking the Vulnerability of Capital Markets to Speculative flows, November 2005.

Sims, C. A. and . (1972). "Money, Income and Causality." *American Economic Review* 62: 540-552.

Sims, C. A. (1980). "Macroeconomics and Reality." *Econometrica* 48(1): 1-48.

Stulz, R. M., et al. (1999). "Do Foreign Investors Destabilize Stock Markets? The Korean Experience in 1997." *Journal of Financial Economics*: 227-264.

Warther, V. (1995). "Aggregate mutual fund flows and security returns." *Journal of Financial Economics*, Volume 39, 209-235.

(Contd. from page 7)

Inferences: The complexity inherent in the formation of a multi-tiered system of financial instruments has an exponential impact on the riskiness associated with the base security.

The force exerted will be the square of the level of further securitization, i.e., for the second level, the force exerted would increase four times, for the third level, the force exerted would increase nine times, and so on.

TO CONCLUDE WITH - A WORD OF CAUTION

Financial intermediaries and experts should hence exert an immense amount of care when designing financial products as it draws risk not just inherent to the security itself but from the environment generated due to repeated securitization. Risk assessment departments which were almost defunct for the past few years or took a backseat in the euphoria of growth and incomes should function as watch dogs and at the forefront of the financial structuring of securities. These departments need to be present at the financial institution and also at the credit rating agencies.

This paper was an effort to quantify the extent of risk faced by an underlying security through repeated securitization through sophisticated sounding nomenclatures. It drew a parallel from the physical-mechanical sciences to convey to the reader the immense challenges and risks underlying such a venture.

BIBLIOGRAPHY

1. Danielsson, Jón. "The Emperor Has No Clothes: Limits to Risk Modelling." *Journal of Banking and Finance*, 2002, 26, pp. 1273-96.
2. Dash, E., & Creswell, J., (November 2000). *The Reckoning: Citigroup Saw No Red Flags Even as It Made Bolder Bets*. The New York Times.
3. "Five years of Sarbanes-Oxley". *The Economist*. 2007-07-26.
http://www.economist.com/displaystory.cfm?story_id=9545905
4. Farrell, Greg. *"America Robbed Blind."* Wizard Academy Press: 2005 Impact of Basel II on IT investments Global Data and Risk Management Survey 2005
5. Kuschnik, Bernhard; The Sarbanes Oxley Act: "Big Brother is watching" you or Adequate Measures of Corporate Governance Regulation? 5 Rutgers Business Law Journal [2008], 64 - 95; available at http://businesslaw.newark.rutgers.edu/RBLJ_vol5_no1_kuschnik.pdf
6. Orr, G., (2008). *Credit Crisis — The Essentials*. The New York Times.
7. Shakespeare, Catharine (2008). "Sarbanes-Oxley Act of 2002 Five Years On: What Have We Learned?". *Journal of Business & Technology Law*: 333.
8. <http://www.bis.org/publ/bcbsca.htm> Basel II: Revised international capital framework (BCBS)
9. <http://www.math.ethz.ch/~delbaen/ftp/preprints/CoherentMF.pdf> Coherent measures of risk.

(Contd. from page 19)

BIBLIOGRAPHY

- 1) Association of Chamber of commerce and Industry Dated 26 January 2009
- 2) Central Statistical organization Dated 17 January 2009
- 3) Confederation of India Industry Dated 17 January 2009
- 4) Federation of Indian Chamber of Commerce and Industry Dated 5 January 2009
- 5) www.eaindustry.nic.in Dated 23 January 2009
- 6) www.fibre2fashion.com, Dated 5 January 2009
- 7) www.hindu.com, Dated 10 January 2009
- 8) www.hindutimes.com, Dated 5 February 2009
- 9) www.hipa.nic.in, Dated 21 February 2009
- 10) www.rbiorg.in, Dated 5 February 2009
- 11) www.seekingalpha.com, Dated 14 January 2009
- 12) www.theindianbogger.com, Dated 5 February 2009
- 13) www.wikipedia.org, Dated 10 January 2009