Appendix-1A
(History of Market Upheavals)

Name	Brief descriptions
Tulip mania Bubble of 1637:	A bubble (1633–37) in Netherlands during which contracts for bulbs of tulips reached extraordinarily high prices, and suddenly collapsed. At the peak of tulip mania, in March 1637, some single tulip bulbs sold for more than 10 times the annual income of a skilled craftsman. It is generally considered the first recorded speculative bubble (or economic bubble),although some researchers have noted that the Kipper- und Wipperzeit episode in 1619–22, a Europe-wide chain of debasement of the metal content of coins to fund warfare, featured mania-like similarities to a bubble.The term "tulip mania" is now often used metaphorically to refer to any large economic bubble (when asset prices deviate from intrinsic values).The 1637 event was popularized in 1841 by the book " Extraordinary Popular Delusions and the Madness of Crowds", written by British journalist Charles Mackay. According to Mackay, at one point 12 acres (5 ha) of land were offered for a Semper Augustus bulb. Mackay claims that many such investors were ruined by the fall in prices, and Dutch commerce suffered a severe shock.
South Sea Bubble of 1720 :	The South Sea Company (officially The Governor and Company of the merchants of Great Britain, trading to the South Seas and other parts of America, and for the encouragement of fishing) was a British joint-stock company founded in 1711, created as a public–private partnership to consolidate and reduce the cost of national debt. The company was also granted a monopoly to trade with South America, hence its name. At the time it was created, Britain was involved in the War of the Spanish Succession and Spain controlled South America. There was no realistic prospect that trade would take place and the company never realised any significant profit from its monopoly. Company stock rose greatly in value as it expanded its operations dealing in government debt, peaking in 1720 before collapsing to little above its original flotation price; this became known as the South Sea Bubble.The Bubble Act 1720 , which forbade the creation of joint-stock companies without royal charter, was promoted by the South Sea company itself before its collapse. This was an effort to prevent the increasing competition for investors, which it saw from companies springing up around it.A considerable number of people was ruined by the share collapse, and the national economy greatly reduced as a result. The founders of the scheme engaged in insider trading, using their advance knowledge of when national debt was to be consolidated

	to make large profits from purchasing debt in advance. Huge bribes were given to politicians to support the Acts of Parliament necessary for the scheme. Company money was used to deal in its own shares, and selected individuals purchasing shares were given loans backed by those same shares to spend on purchasing more shares. The expectation of vast wealth from trade with South America was used to encourage the public to purchase shares, despite the limited likelihood this would ever happen. The only significant trade that did take place was in slaves, but the company failed to manage this profitably. A parliamentary enquiry was held after the crash to discover its causes. A number of politicians were disgraced, and people found to have profited unlawfully from the company had assets confiscated proportionately to their gains (most had already been rich men and remained comfortably rich). The company was restructured and continued to operate for more than a century after the Bubble. The headquarters were in Threadneedle Street at the centre of the financial district in London, in which street today can be found the Bank of England. At the time of these events this also was a private company dealing in national debt, and the crash of its rival consolidated its position as banker to the British government.
Crisis of 1772 :	The peacetime Credit Crisis of 1772 originated in London and then spread to other parts of Europe, such as Scotland and Netherlands. On June 8, 1772, Alexander Fordyce, a partner in the banking house Neal, James, Fordyce and Down in London, fled to France to avoid debt repayment, and the resulting collapse of the firm stirred up panic in London. Economic growth at that period was highly dependent on the use of credit, which was largely based upon people's confidence in the banks. As confidence started ebbing, paralysis of the credit system followed: crowds of people gathered at the banks and requested debt repayment in cash or attempted to withdraw their deposits. As a result, twenty important banking houses went bankrupt or stopped payment by the end of June, and many other firms endured hardships during the crisis. At that time, the Gentleman's Magazine commented, "No event for 50 years past has been remembered to have given so fatal a blow both to trade and public credit".
Financial Panic of 1792:	The Panic of 1792 was a financial credit crisis that occurred during the months of March and April of 1792, precipitated by the expansion of credit by the newly formed Bank of the United States as well as by rampant speculation on the part of William Duer, Alexander Macomb and other prominent bankers. Duer, Macomb and

	their colleagues attempted to drive up prices of US debt securities and bank stocks, but when they defaulted on loans, prices fell causing a bank run. Simultaneous tightening of credit by the Bank of the United States served to heighten the initial panic. Secretary of the Treasury Alexander Hamilton was able to deftly manage the crisis by providing banks across the Northeast with hundreds of thousands of dollars to make open-market purchases of securities, which allowed the market to stabilize by May of 1792.
Panic of 1796–1797:	The Panic of 1796–1797 was a series of downturns in Atlantic credit markets that led to broader commercial downturns in both Britain and the United States. In the U.S., problems first emerged when a land speculation bubble burst in 1796. The crisis deepened when the Bank of England suspended specie payments on February 25, 1797 under the Bank Restriction Act of 1797. The Bank's directors feared insolvency when English account holders, who were nervous about a possible French invasion, began withdrawing their deposits. In combination with the unfolding collapse of the U.S. real estate market, the Bank of England's action had disflationary repercussions in the financial and commercial markets of the coastal United States and the Caribbean at the start of the 19th century.By 1800, the crisis had resulted in the collapse of many prominent merchant firms in Boston, New York, Philadelphia, and Baltimore, and the imprisonment of many American debtors. The latter included the famed financier of the revolution Robert Morris and his partner James Greenleaf who had invested in backcountry land. Former Associate Justice of the Supreme Court James Wilson was forced to spend the rest of his life fleeing from creditors until he died at a friend's home in Edenton, North Carolina.George Meade, the grandfather of the American Civil War Union General George Gordon Meade was ruined by investments in Western land deals and died in bankruptcy due to the panic. The fortune of Henry Lee III, father of Confederate General Robert E. Lee, was reduced by speculation with Robert Morris. The scandals associated with these and other incidents prompted the U.S. Congress to pass the Bankruptcy Act of 1800, which was not renewed after its three-year duration expired in 1803.
Panic of 1825:	The Panic of 1825 was a stock market crash that started in the Bank of England, arising in part out of speculative investments in Latin America, including the imaginary country of Poyais. The crisis was felt most acutely in England where it precipitated the closing of six London banks and sixty country banks in England, but

	was also manifest in the markets of Europe, Latin America, and the United States. An infusion of gold reserves from the Banque de France saved the Bank of England from complete collapse.The panic has been referred to as the first modern economic crisis not attributable to an external event, such as a war, and thus the start of modern economic cycles. The period of the Napoleonic Wars had been exceptionally profitable for all sectors of the British financial system, and the expansionist monetary actions taken during transition from wartime to peacetime economy initiated a surge of prosperity and speculative ventures. The stock market boom became a bubble and banks caught up in the euphoria made risky loans.
Panic of 1837:	The Panic of 1837 was a financial crisis in the United States that touched off a major recession that lasted until the mid-1840s. Profits, prices and wages went down while unemployment went up. Pessimism abounded during the time. The panic had both domestic and foreign origins. Speculative lending practices in western states, a sharp decline in cotton prices, a collapsing land bubble, international specie flows, and restrictive lending policies in Great Britain were all to blame. On May 10, 1837, banks in New York City suspended specie payments, meaning that they would no longer redeem commercial paper in specie at full face value. Despite a brief recovery in 1838, the recession persisted for approximately seven years. Banks collapsed, businesses failed, prices declined, and thousands of workers lost their jobs. Unemployment may have been as high as 25% in some locales. The years 1837 to 1844 were, generally speaking, years of deflation in wages and prices.
Panic of 1847:	The Panic of 1847 was started as a collapse of British financial markets associated with the end of the 1840s railway industry boom. As a means of stabilizing the British economy the ministry of Robert Peel passed the Bank Charter Act of 1844. This Act fixed maximum quantity bank notes that could be in circulation at any one time and guaranteed that definite reserve funds of gold and silver would be held in reserve to back up the money in circulation. Furthermore, the Act required that the supply of money in circulation could only be increased when gold or silver reserves were proportionately increased. However, in 1847, the Peel Banking Act was circumvented when the Bank of England requested a suspension of the Bank Charter Act. This caused excessive monetary inflation due to the Bank of England and fractional reserve banking. It was this circumvention of the Peel Banking Act that caused the Panic of 1847.

	was also manifest in the markets of Europe, Latin America, and the United States. An infusion of gold reserves from the Banque de France saved the Bank of England from complete collapse.The panic has been referred to as the first modern economic crisis not attributable to an external event, such as a war, and thus the start of modern economic cycles. The period of the Napoleonic Wars had been exceptionally profitable for all sectors of the British financial system, and the expansionist monetary actions taken during transition from wartime to peacetime economy initiated a surge of prosperity and speculative ventures. The stock market boom became a bubble and banks caught up in the euphoria made risky loans.
Panic of 1837:	The Panic of 1837 was a financial crisis in the United States that touched off a major recession that lasted until the mid-1840s. Profits, prices and wages went down while unemployment went up. Pessimism abounded during the time. The panic had both domestic and foreign origins. Speculative lending practices in western states, a sharp decline in cotton prices, a collapsing land bubble, international specie flows, and restrictive lending policies in Great Britain were all to blame. On May 10, 1837, banks in New York City suspended specie payments, meaning that they would no longer redeem commercial paper in specie at full face value. Despite a brief recovery in 1838, the recession persisted for approximately seven years. Banks collapsed, businesses failed, prices declined, and thousands of workers lost their jobs. Unemployment may have been as high as 25% in some locales. The years 1837 to 1844 were, generally speaking, years of deflation in wages and prices.
Panic of 1847:	The Panic of 1847 was started as a collapse of British financial markets associated with the end of the 1840s railway industry boom. As a means of stabilizing the British economy the ministry of Robert Peel passed the Bank Charter Act of 1844. This Act fixed maximum quantity bank notes that could be in circulation at any one time and guaranteed that definite reserve funds of gold and silver would be held in reserve to back up the money in circulation. Furthermore, the Act required that the supply of money in circulation could only be increased when gold or silver reserves were proportionately increased. However, in 1847, the Peel Banking Act was circumvented when the Bank of England requested a suspension of the Bank Charter Act. This caused excessive monetary inflation due to the Bank of England and fractional reserve banking. It was this circumvention of the Peel Banking Act that caused the Panic of 1847.

Appendix-1A
(History of Market Upheavals)

Wall Street Crash of 1929:	The Wall Street Crash of 1929, also known as Black Tuesday or the Stock Market Crash of 1929, began in late October 1929 and was the most devastating stock market crash in the history of the United States, when taking into consideration the full extent and duration of its fallout. The crash signaled the beginning of the 10-year Great Depression that affected all Western industrialized countries..
1973–1974 stock market crash:	Lasting 23 months, dramatic rise in oil prices, the miners' strike and the downfall of the Heath government. The 1973–1974 bear market was a bear market that lasted between January 1973 and December 1974. Affecting all the major stock markets in the world, particularly the United Kingdom, it was one of the worst stock market downturns in modern history. The crash came after the collapse of the Bretton Woods system over the previous two years, with the associated 'Nixon Shock' and United States dollar devaluation under the Smithsonian Agreement. It was compounded by the outbreak of the 1973 oil crisis in October of that year. It was a major event in the 1970s recession. In the 699 days between 11 January 1973 and 6 December 1974, the New York Stock Exchange's Dow Jones Industrial Average benchmark lost over 45% of its value, making it the seventh-worst bear market in the history of the index. 1972 had been a good year for the DJIA, with gains of 15% in the twelve months. 1973 had been expected to be even better, with Time magazine reporting, just 3 days before the crash began, that it was 'shaping up as a gilt-edged year'. In the two years from 1972 to 1974, the American economy slowed from 7.2% real GDP growth to −2.1% contraction, while inflation (by CPI) jumped from 3.4% in 1972 to 12.3% in 1974
Silver Thursday of 1980s:	Silver price crash: Silver Thursday was an event that occurred in the United States in the silver commodity markets on Thursday, March 27, 1980. A steep fall in silver prices led to panic on commodity and futures exchanges.

Appendix-1A
(History of Market Upheavals)

Black Monday of 19 Oct 1987:	In finance, Black Monday refers to Monday, October 19, 1987, when stock markets around the world crashed, shedding a huge value in a very short time. The crash began in Hong Kong and spread west to Europe, hitting the United States after other markets had already declined by a significant margin. The Dow Jones Industrial Average (DJIA) dropped by 508 points to 1738.74 (22.61%).In Australia and New Zealand the 1987 crash is also referred to as Black Tuesday because of the timezone difference. The terms Black Monday and Black Tuesday are also applied to October 28 and 29, 1929, which occurred after Black Thursday on October 24, which started the Stock Market Crash of 1929.
1997 Asian financial crisis:	Investors deserted emerging Asian shares, including an overheated Hong Kong stock market. Crashes occur in Thailand, Indonesia, South Korea, Philippines, and elsewhere, reaching a climax in the October 27, 1997 crash.
Dot-com bubble of 2000:	Collapse of a technology bubble, world economic effects arising from the September 11 attacks and the stock market downturn of 2002.
Stock market downturn of 2002	Downturn in stock prices during 2002 in stock exchanges across the United States, Canada, Asia, andEurope. After recovering from lows reached following the September 11 attacks, indices slid steadily starting in March 2002, with dramatic declines in July and September leading to lows last reached in 1997 and 1998.
United States bear market of 2007–2009	Till June 2009, the Dow Jones Industrial Average, Nasdaq Composite and S&P 500 all experienced declines of greater than 20% from their peaks in late 2007.
Late-2008's	On September 16, 2008, failures of large financial institutions in the United States, due primarily to exposure of

financial crisis	securities of packaged subprime loans and credit default swaps issued to insure these loans and their issuers, rapidly devolved into a global crisis resulting in a number of bank failures in Europe and sharp reductions in the value of equities (stock) and commodities worldwide. The failure of banks in Icelandresulted in a devaluation of the Icelandic króna and threatened the government with bankruptcy. Iceland was able to secure an emergency loan from the IMF in November. Later on, U.S. President George W. Bushsigns the Emergency Economic Stabilization Act into law, creating a Troubled Asset Relief Program (TARP) to purchase failing bank assets.
2010 Flash Crash	The Dow Jones Industrial Average suffers its worst intra-day point loss, dropping nearly 1,000 points before partially recovering.

Appendix-1B

Cases for Indian Market (10 biggest falls in the Indian stock market history):

Jan 21, 2008: The Sensex saw its highest ever loss of 1,408 points at the end of the session on Monday. The Sensex recovered to close at 17,605.40 after it tumbled to the day's low of 16,963.96, on high volatility as investors panicked following weak global cues amid fears of the US recession.

Jan 22, 2008: The Sensex saw its biggest intra-day fall on Tuesday when it hit a low of 15,332, down 2,273 points. However, it recovered losses and closed at a loss of 875 points at 16,730. The Nifty closed at 4,899 at a loss of 310 points. Trading was suspended for one hour at the Bombay Stock Exchange after the benchmark Sensex crashed to a low of 15,576.30 within minutes of opening, crossing the circuit limit of 10 per cent.

May 18, 2006: The Sensex registered a fall of 826 points (6.76 per cent) to close at 11,391, following heavy selling by FIIs, retail investors and a weakness in global markets. The Nifty crashed by 496.50 points (8.70%) points to closeat5,208.80points.

December17, 2007: A heavy bout of selling in the late noon deals saw the index plunge to a low of 19,177 - down 856 points from the day's open. The Sensex finally ended with a huge loss of 769 points (3.8%) at 19,261. The NSE Nifty ended at 5,777, down 271 points.

October 18, 2007: Profit-taking in noon trades saw the index pare gains and slip into negative zone. The intensity of selling increased towards the closing bell, and the index tumbled all the way to a low of 17,771 - down 1,428 points from the day's high. The Sensex finally ended with a hefty loss of **717** points (3.8%) at 17,998. The Nifty lost 208 points to close at 5,351.

January 18, 2008: Unabated selling in the last one hour of trade saw the index tumble to a low of 18,930 - down 786 points from the day's high. The Sensex finally ended with a hefty loss of 687 points (3.5%) at 19,014. The index thus shed 8.7% (1,813 points) during the week. The NSE Nifty plunged 3.5% (208 points) to 5,705.

November,21, 2007: Mirroring weakness in other Asian markets, the Sensex saw relentless selling. The index tumbled to a low of 18,515 - down 766 points from the

previous close. The Sensex finally ended with a loss of 678 points at 18,603. The Nifty lost 220 points to close at 5,561.

August 16, 2007: The Sensex, after languishing over 500 points lower for most of the trading sesion, slipped again towards the close to a low of 14,345. The index finally ended with a hefty loss of 643 points at 14,358.

April 02, 2007: The Sensex opened with a huge negative gap of 260 points at 12,812 following the Reserve Bank of India decision to hike the cash reserve ratio and repo rate. Unabated selling, mainly in auto and banking stocks, saw the index drift to lower levels as the day progressed. The index tumbled to a low of 12,426 before finally settling with a hefty loss of 617 points (4.7%) at 12,455.

August 01, 2007: The Sensex opened with a negative gap of 207 points at 15,344 amid weak trends in the global market and slipped deeper into the red. Unabated selling across-the-board saw the index tumble to a low of 14,911. The Sensex finally ended with a hefty loss of 615points at 14,936. The NSE Nifty ended at 4,346, down 183 points. This is the third biggest loss in absolute terms for the index.