1. **BACKGROUND**
2. **Source**

*After the Music Stopped*: Alan S. Blinder

**2. Relative size of Financial Markets and Real Economy**

 As of 2017, 18 (trillion $) World US

 Debt (public and private 247 44

 Equities 78 38

 GDP 135 20

 Source: FRED; et. al.

**3. Organization of Topic**

* Linkages between financial crises and the real economy
* Mitigation
* Short term
* Long term
* Lessons

**B. LINKAGES**

**1. Sectors and the Overall Economy**

Dot.com bubble in late 1990s, early 2000s

∙ Short, brief recession of 2001

∙ Localized geographically and did not interupt longer term GDP, unemployment trends

Housing market bubble 2003-2006-7

∙ Although initially localized, ▵↓ in home prices in 2006 spread to larger areas by 2007

∙ ▵↑ in leverage of mortgage debt: $ amounts; % of home value; % of income as a result of:

∙ Expectations of continued ▵↑ in home prices

∙ Relaxation of lending practices and expansion of new SLAs which were traditional mortgagers

∙ Development of mortgage backed securities (MDS)

∙ Paid higher return than other debt

∙ Perceived to spread risk due to large number of individual mortgages includes in collatorized debt obligations (CDOs)

∙ Misperception of risk

∙ Faulty (no) valuations of creditworthiness of households and properties to be mortgaged

∙ Repeal of 1932 Glass-Steagell Act which separated risks associated with commercial bank’s customer accounts and those of the bank’s accumulation of profits) was not considered significant as banks were believed to act prudently and would be ‘regulated by the market’

∙ Banks were trusted by purchasers of CDOs to accurately price them in terms of the risks (essentially zero from the banks’ perspective)

∙ Lax oversight by FRS, FDIC, FSLIC, SEC, state banking authorities; slow recognition of effect of potential collapse of effect of home prices

**2. Domestic and Foreign Demand**

Strong demand based on:

∙ Higher return of CDOs compared to US Treasury, some private debt and less risky than higher paying debt of foreign gov’ts and firms

∙ Risk perceived to be low (non-existent) as homeowners mortgage payments were believed to be dependable source of revenue which formed the basis for payments to owners of CDOs

∙ Perception in foreign countries was US banking system was regulated so risks were minimal

∙ US economy was strong and growing in the 2000s (after brief, shallow 2001 recession)

∙ Lingering uncertainties about stability of €; beginnings of EMU debt crisis

∙ Easy transfer of funds across borders and among financial instruments facilitated

**3. Triggers of the Recession**

∙ Housing market price collapse (2006-7)

∙ selling of CDOs led to quick, large price ▵↓

∙ uncertain values of outstanding CDOs

∙ Insolvency of large previously respected investment banks and other entities which were responsible for creation and marketing of the CDOs and Ambiguous response of US (FRS and Treasury)

∙ Forced, subsidized merger of Bears Sterns with BAC (March 2008)

∙ Allowing Lehman Bros. to fail (declare bankruptcy) (September 2008)

∙ Fannie Mae and Freddie Mac (very large, quasi gov’t agencies which bought owned mortgages from banks and others) bailout (September 2008)

∙ AIG–large re-insurance firm bailed out (September 2008)

∙ Fear that sell-off of CDOs could cause insolvency in many financial institutions even ones (some large commercial banks) that were not directly involved in creating, marketing CDOs

∙ Announcement by the Reserve Fund (a MMMY) that withdrawals would be honored at 97% of amounts deposited because it held large amounts of commercial paper issued by Lehman Bros. whose value was uncertain (worthless after Lehman Bros. Bankruptcy)

These in combination with large stock market decline (c18 % ▵↓in DJI; c20% ▵↓in S&P500) in early October 2008 led to households and firms reducing their spending on C, I which led to an expectation (realization of a ▵↓in GDP in 4Q of 2008 and 1, 2Q in 2009). Later, the recession was dated to 1Q 2008 through 2Q of 2009.

**4. Consequences**

Macro variables

∙ Recession: 1Q 2008 to 2Q 2009 with ▵↓s in all domestic GDP components and a world-wide recession which ▵↓X;

∙ Unemployment: increase from about 5 percent in 2008 to nearly 10 % in April 2010 followd by a gradual decrease to 3.7 % in September 2018

∙ Inflation: No significant change from about 2 % per year for the 2010 decade

Financial, Monetary aspects

∙ Lending to stimulate I, and indirectly C, did not match expectations of FRS and Treasury as a result of interest rate ▵↓, QE and TARP

∙ Banks ▵↑their profits and balance sheet by increasing holdings of Treasury debt

**5. Mitigation: Short Term**

In fall 2007 a $600 or $1200 per household, one time tax reduction passed by Congress, signed by President Bush

Treasury (FDIC) would guarantee up to $1003 balance in MMMF (September 2008)

TARP (Troubled Asset Relief Program) in late 2008 and early 2009 totaling c$7879; Congress and President authorized US Treasury Dept. to buy:

∙ financial instruments in troubled financial institutions (BAC-$459, C-$459, AIG-$409, JPM-$259, WFC-$259, GMAC-$179) to encourage lending

∙ CDOs from financial institutions

∙ financial instruments of firms (GM–$1312, Chrysler-$412) so they could avoid bankruptcy

FRS ▵↓ interest rates (ffr) by 2 %age points (5% to 3%) in 2007 in response to collapse of home prices and suspected recession and then to near zero by the end of 2008 and announced it would maintain that low rate indefinitely

FRS in November 2008 announced it would buy CDOs ($1.2512)and US Gov’t debt (up to $3009) in the open market–QE 1– which was announced as an indefinite program, but was ended in March 2010.

**6. Mitigation: Long Term**

Passage of Dodd-Frank legislation (July 2010, legislation introduced July 2009) to:

∙ give more regulatory authority to FRS, other agencies to regulate and oversee banks

∙ re-impose a weaked version of Glass-Steagell (Volker Rule)

∙ create the CFPB (Consumer Financial Protection Bureau) provide increased regulation of financial firms providing services to the public

FRS continued QE:

∙ QE2 May 2009: (November 2010 to July 2011 $6009) purchased of longer term Treasury bonds

∙ QE3 September 2012: (September 2012 to indefinite, but ended December 13) purchase of $409 a month of MBS until the economy improves

**C. LESSONS**

**1. Policy Approaches**

FP and MP judged necessary to achieve a more speedy GDP, unemployment recovery, but after 2007 tax cut and 2008 TARP, Congress was unwilling to act leaving FRS to use continuation of low interest rates and QE to address slow recovery of GDP and decrease in unemployment

Tax reduction was interpreted as a one time reduction and did not have long-term effect on GDP, but resulted in reduction of consumer debt rather than ▵↑ in C, I

Treasury realized a small net gain from selling financial assets received in exchange for bailouts in 2008,2009). Gains would have been larger had sales been delayed to take advantage of stock price appreciations in 2017, early 2018.

Congressional Republicans advocated:

∙ Aversion to bailouts and further increases in gov’t deficit (debt) led to a short shut-down of gov’t in 2013

∙ Focusing on assigning blame for financial crisis, but with no prosecutions

∙ Threats to restrict ability of FRS to act to forestall future financial crises

 Requiring prior approval for FRS purchase of private debt

Passage of a weak Volker Rule (part of Dodd-Frank) based on an assertion of an unnecessary regulatory burden on banks which in any case were assumed to avoid creating future ‘bubbles’

**2. Potential for Repetition**

By fall 2018, no significant long term, automatic stabilization measure (other than weak Volker Rule)

Weakening stress tests especially for medium-sized banks and performed less often (every two years rather than one) proposed in fall 2018

In late 2017, tax reduction for corporations and wealthy households enacted which is expected to ▵↑ deficits and federal gov’t debt by c$1.712

Increase in federal debt (CBO estimates now c100% of projected GDP; in 2028 c75% of GDP) makes subsequent fiscal policy less likely as it would further increase deficits and federal gov’t debt

No Congressional, Administrative or FRS attention devoted to identifying and addressing regulation, elimination of asset bubbles:

∙ student loan debt $1.312 in 2017

∙ stock market prices especially in ‘tech’ sector

∙ unsecured debt of corporations

2017, 2018 reduction of regulations in general

Increases vulnerability of economy to unexpected shocks:

∙ external: such as OPEC oil export ▵↓ petroleum price ▵↑; failure of EMU, EU bailouts of debt strapped countries; loss of confidence in management of US economy by foreign purchasers of US government debt, e.g. PRC)

∙ internal (persistent stock market declines)

November 1, 2018