

Course title: International financial regulation

Lesson 13. The macroeconomic consequences of financial
imperfections

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General Outline of The Presentation

- ❑ **Sub-prime Mortgage Loans**
 - ❖ **What does it mean and how did it come about?**
 - ❖ **Scale of the problem**
 - ❖ **Extent of the problem in the months or years ahead**
- ❑ **Financial Markets and Economic Stability & Growth**
 - ❖ **The place and the role of financial markets within a macro-economy**
 - ❖ **Expansion of credits and economic stability**
 - ❖ **The misconception about credit**
 - ❖ **Unbacked lending and economic instability**
 - ❖ **Role of Federal Reserve System**
- ❑ **What to Look for in the Months or Years Ahead**
 - ❖ **The pressure of a soft/recessionary economy and near future of Real Estate.**
 - ❖ **Is there anything to be learned for the future (Policy issues)?**

What Does It Mean?

- ❑ **The subprime mortgage market caters to borrowers with imperfect credit or other weaknesses, such as insufficient cash for a down payment.**
- ❑ **Some houses were bought with 100 percent loans by borrowers hoping to turn a quick profit from appreciation.**
- ❑ **Home buyers with 100% loans had negative equity the day they closed, in the sense that if they were forced to resell immediately, the transactions costs, which can be 5 percent or more, would have to be paid out of their pockets.**
- ❑ **Many would assume that by appreciation of their homes, they may be able to have positive equity and using the new circumstances, they may be able to refinance their homes and get a better and more stable mortgage rate.**

What Does it Mean....Continued

- ❑ The most commonly used mortgage in the subprime market is the 2/28 ARM. This is an adjustable-rate mortgage on which the rate is fixed for two years and is then reset to equal the value of a rate index, plus a margin.
- ❑ Because subprime margins are high, the rate on most 2/28s will rise sharply at the two-year mark, even if market rates do not change during the two-year period.
- ❑ If the house has appreciated, this is not usually a problem because the borrower can refinance, if necessary, into another 2/28. While these loans carry refinance costs and typically have prepayment penalties, the costs and penalty can be included in the balance of the new loan if the borrower has sufficient equity.
- ❑ The borrower who does not have the equity needed to refinance, however, is stuck with the higher payment on the existing loan, which may be unaffordable.

How Did It Come About?

- ❑ Edward Gramlich, a Federal Reserve governor who died in September 2007, warned nearly seven years ago that a fast-growing new breed of lenders was luring many people into risky mortgages they could not afford.
- ❑ But when Mr. Gramlich privately urged Fed examiners to investigate mortgage lenders affiliated with national banks, he was rebuffed by Allen Greenspan, the Fed chairman.
- ❑ In 2001, a senior Treasury official, Sheila C. Bair, tried to persuade subprime lenders to adopt a code of “best practices” and to let outside monitors verify their compliance. None of the lenders would agree to the monitors, and many rejected the code itself.

How Did It Come About?.....Continued

- ❑ Fed's officials counted on the housing boom to support the economy after the stock market collapsed in 2000.
- ❑ Mr. Greenspan, in an interview, vigorously defended his actions, saying the Fed was poorly equipped to investigate deceptive lending and that it was not to blame for the housing bubble and bust.
- ❑ Officials enthusiastically praised subprime lenders for helping millions of families buy homes for the first time.
- ❑ Mr. Greenspan wrote in his recent memoir, "The Age of Turbulence: Adventures in a New World." "But I believed then, as now, that the benefits of broadened home ownership are worth the risk."

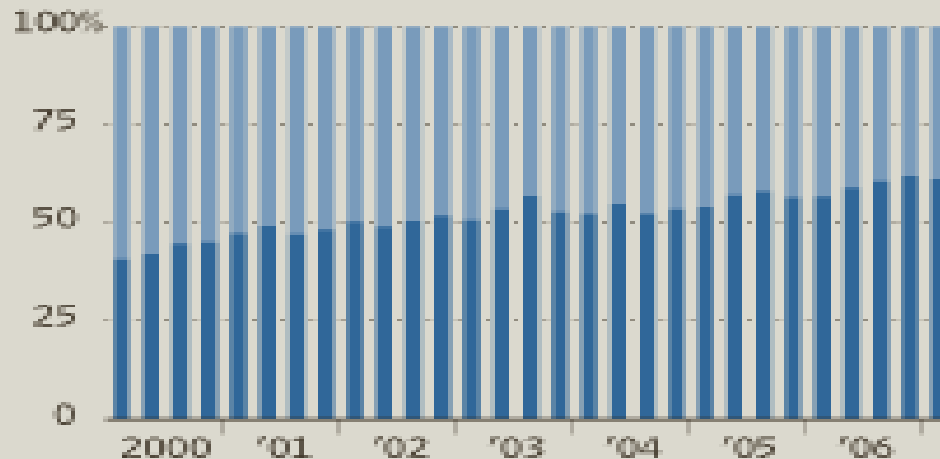
Are all the Borrowers High Risk?

- ❑ One common assumption about the subprime mortgage crisis is that it revolves around borrowers with sketchy credit who couldn't have bought a home without paying punitively high interest rates.
- ❑ An analysis for The Wall Street Journal of more than \$2.5 trillion in subprime loans made since 2000 shows that as the number of subprime loans mushroomed, an increasing proportion of them went to people with credit scores high enough to often qualify for conventional loans with far better terms.
- ❑ Many involved in the business view a credit score of 620 as a historic dividing line between borrowers who are unlikely to qualify for a conventional, or prime loan, and those who may be able to.
- ❑ Above 620 score, borrowers may qualify for a conventional loan if other considerations are in their favor.
- ❑ Above 720, most borrowers would expect to usually qualify for conventional loans, unless they are seeking to spend more than they can afford, or don't want to have to document their income or assets -- or are steered to a subprime product.

Are all the Borrowers High Risk?.....Continued

Mortgage Miscue?

Percentage of subprime mortgages made to borrowers with credit scores of at least 620, which often qualify borrowers for prime loans



Note: Data exclude non-securitized loans and those for which no data were available

Source: First American LoanPerformance

Are all the Borrowers High Risk?.....Continued

- ❑ The subprime sales pitch sometimes was fueled with faxes and emails from lenders to brokers touting easier qualification for borrowers and attractive payouts for mortgage brokers who brought in business.
- ❑ One of the biggest weapons: a compensation structure that rewarded brokers for persuading borrowers to take a loan with an interest rate higher than the borrower might have qualified for.
- ❑ A study done in 2004 and 2005 by the Federal Trade Commission found that many borrowers were confused by current mortgage cost disclosures and "did not understand important costs and terms of their own recently obtained mortgages.
- ❑ Many had loans that were significantly more costly than they believed, or contained significant restrictions, such as prepayment penalties, of which they were unaware."

Are all the Borrowers High Risk?.....Continued

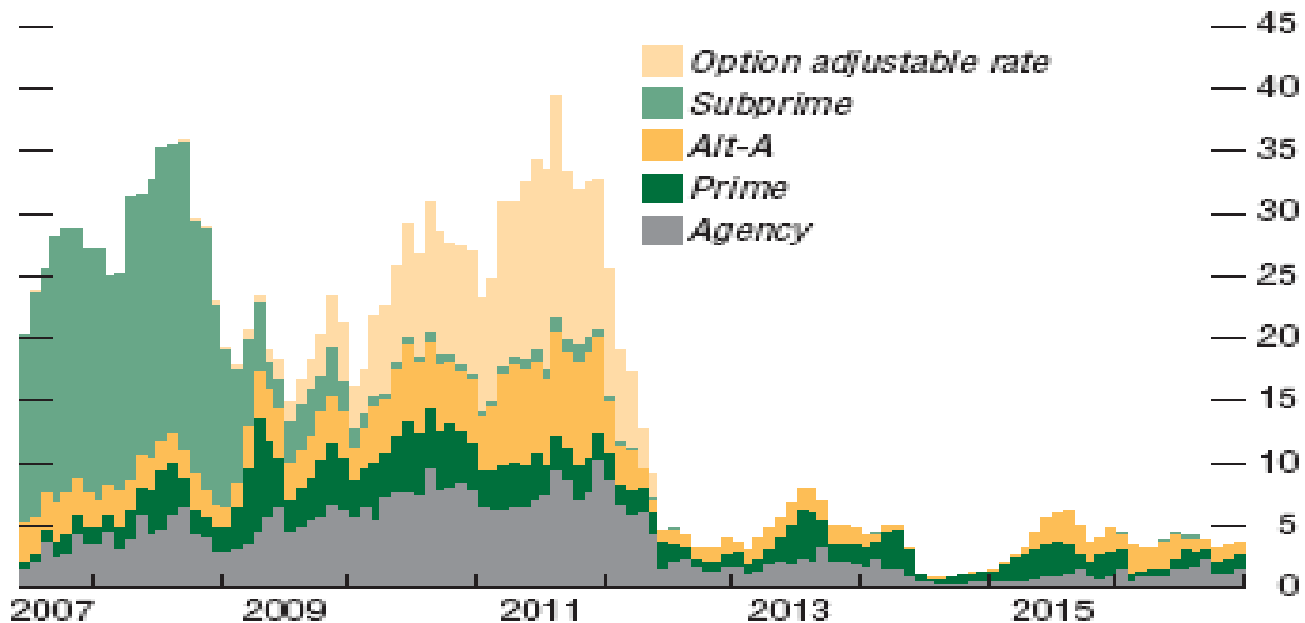
- ❑ As home prices accelerated across the country over the past decade, more affluent families turned to high-rate loans to buy expensive homes they could not have qualified for under conventional lending standards. High-rate loans are those that carry interest rates of three percentage points or more over U.S. Treasuries of comparable durations.
- ❑ Credit-worthy borrowers holding subprime loans may turn out to serve as a sort of shock absorber for the current mortgage crisis.
- ❑ The data perhaps explain why, so far, nearly 80% of the borrowers with subprime loans have continued to keep their loan payments current, according to some analysts. That could indicate the crisis won't continue to deepen as much as some fear.

Size of the Problem

- ❑ The analysis of loan data by The Wall Street Journal indicates that from 2004 to 2006, when home prices peaked in many parts of the country, more than 2,500 banks, thrifts, credit unions and mortgage companies made a combined \$1.5 trillion in high-interest-rate loans. Most subprime loans, which are extended to borrowers with sketchy credit or stretched finances, fall into this basket (November 2007).
- ❑ The data also show that some of the worst excesses of the subprime binge continued well into 2006, suggesting that the pain could last through next year and beyond, especially if housing prices remain sluggish.
- ❑ According to Chairman Bernanke delinquencies will probably rise further for borrowers who have a subprime mortgage with an adjustable interest rate on average from now until the end of 2008, nearly 450,000 subprime mortgages per quarter are scheduled to undergo their first interest rate reset.

Size of the Problem....Continued

Figure 1.7. Monthly Mortgage Rate Resets
(First reset in billions of U.S. dollars)



Source: Credit Suisse.

Size of the Problem....Continued

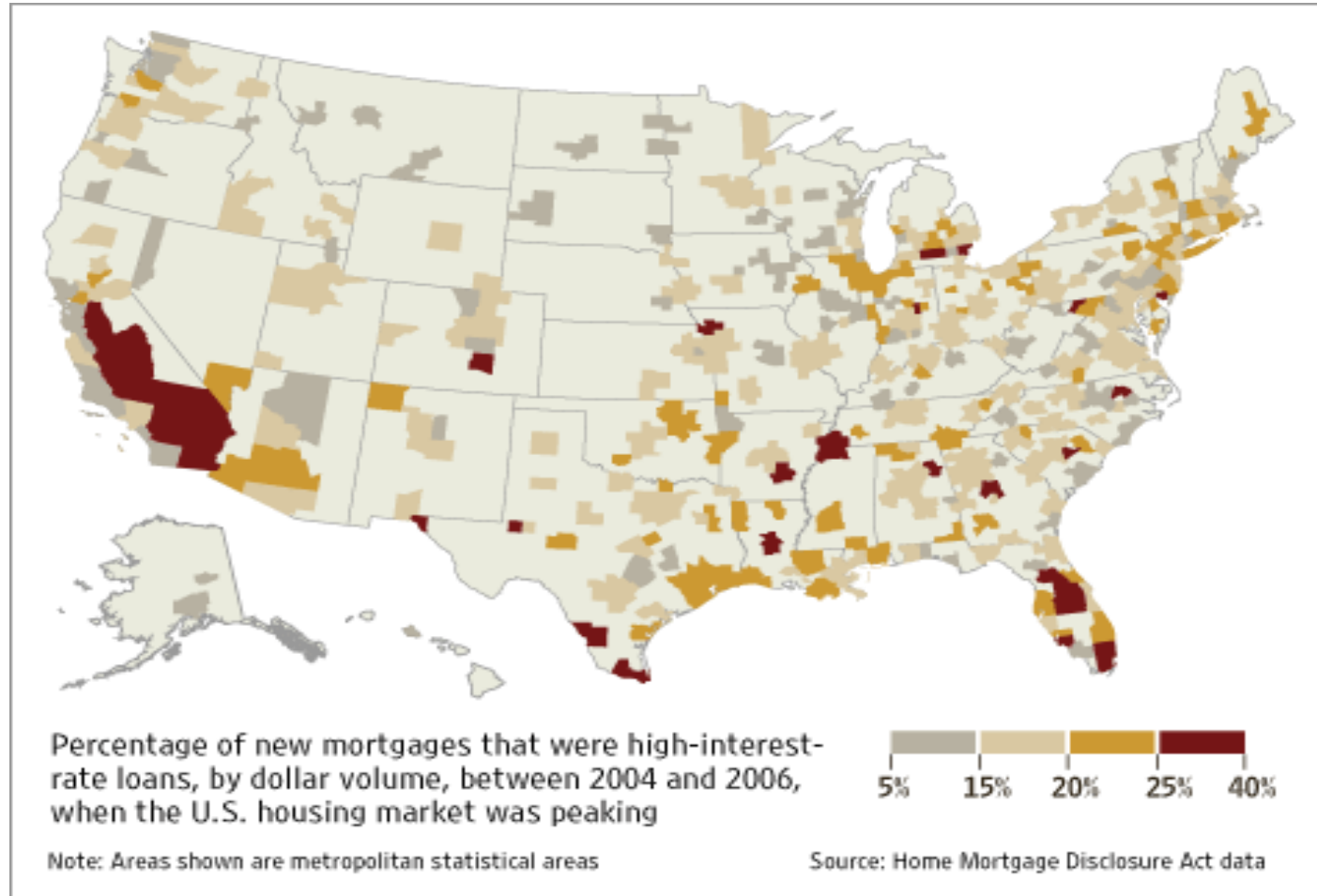
Debt Trouble

Selected metropolitan areas with high proportions of new high-rate mortgages, 2004-2006

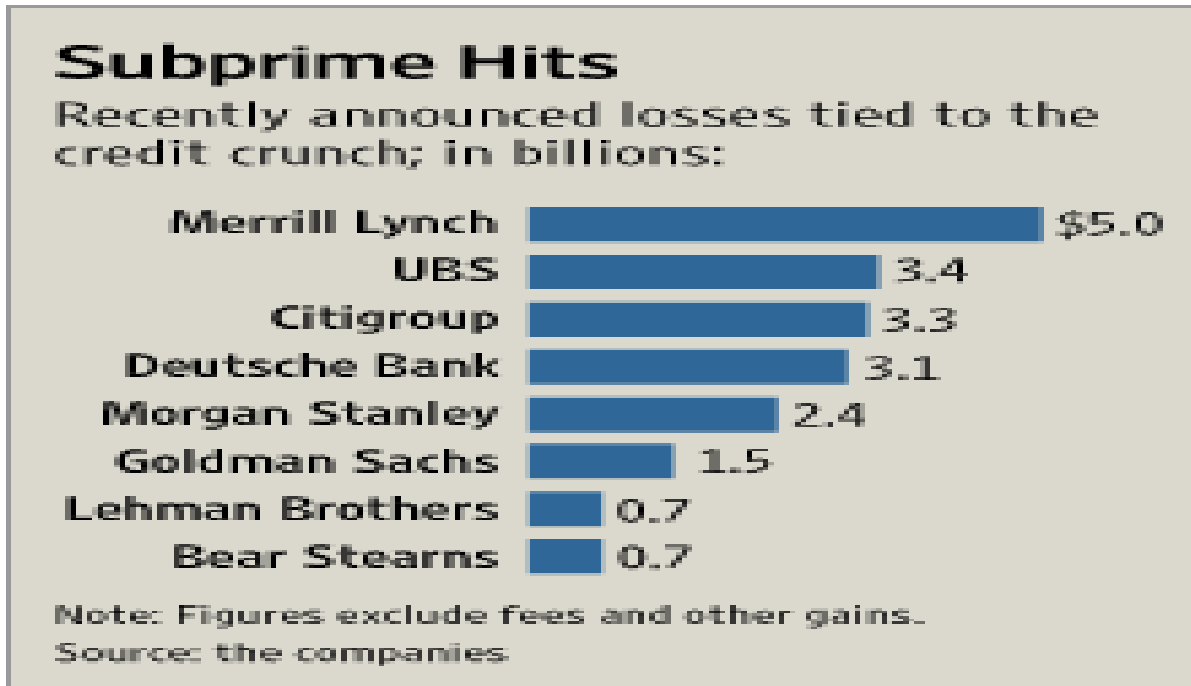
Metropolitan Statistical Area	Number of high-rate loans	High-rate loan volume, in billions	All loan volume, in billions	Percentage high-rate
McAllen-Edinburg-Mission, Texas	17,511	\$1.41	\$3.61	39.1%
Detroit-Livonia-Dearborn, Mich.	112,183	9.84	30.64	32.1
Miami-Miami Beach-Kendall, Fla.	170,938	29.32	92.78	31.6
Bakersfield, Calif.	53,881	8.10	26.75	30.2
Ocala, Fla.	15,085	1.67	6.21	27.0
Stockton, Calif.	46,447	10.66	40.63	26.2
Cape Coral-Fort Myers, Fla.	52,106	8.50	33.17	25.6
Lewiston-Auburn, Maine	3,843	0.40	1.71	23.8
Las Vegas-Paradise, Nev.	149,892	25.70	109.44	23.4
Tacoma, Wash.	42,335	6.07	27.97	21.7

Source: Home Mortgage Disclosure Act data

Size of the Problem....Continued



Size of the Problem....Continued



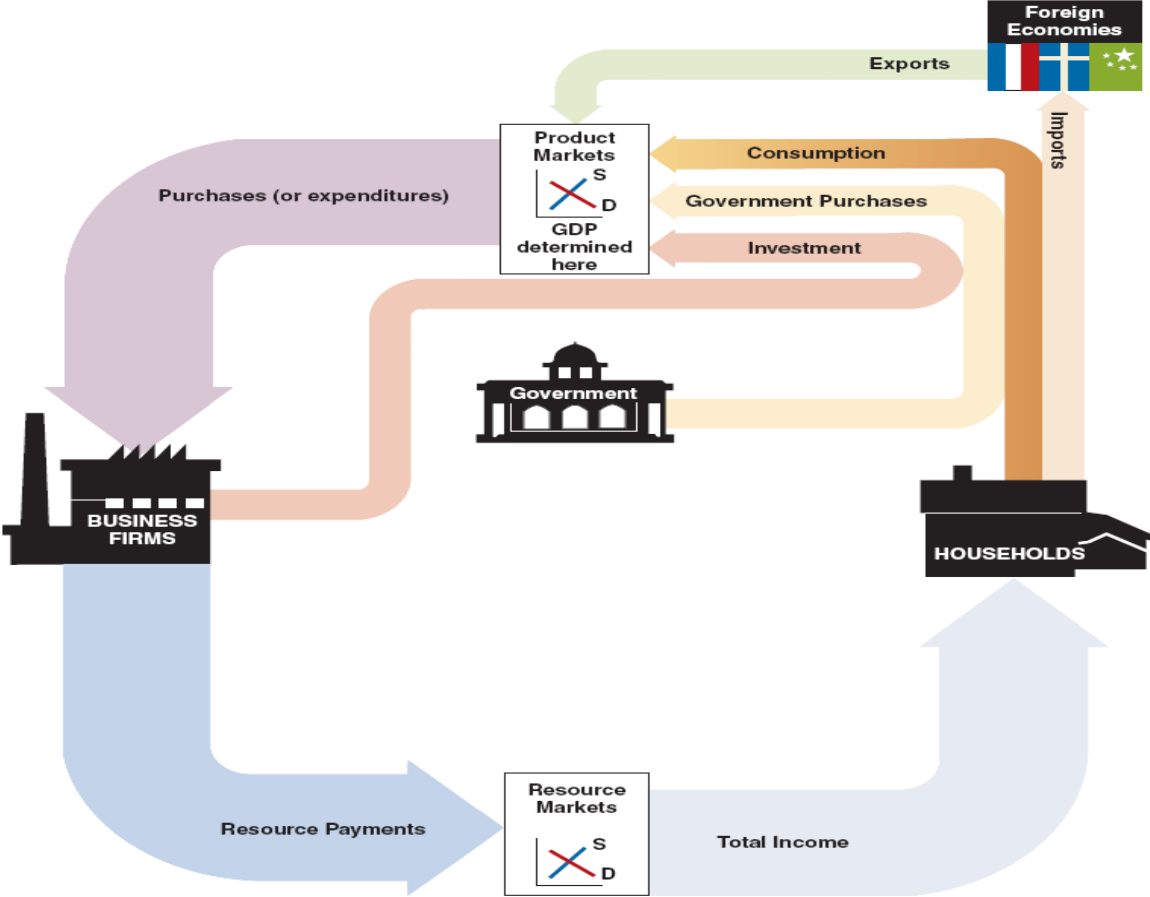
Source: After Big Write-Down, Tied to Mortgage Debt, O'Neal Asserts Control, By RANDALL SMITH
October 6, 2007; Page A1, WSJ

Financial Markets and Economic Stability & Growth

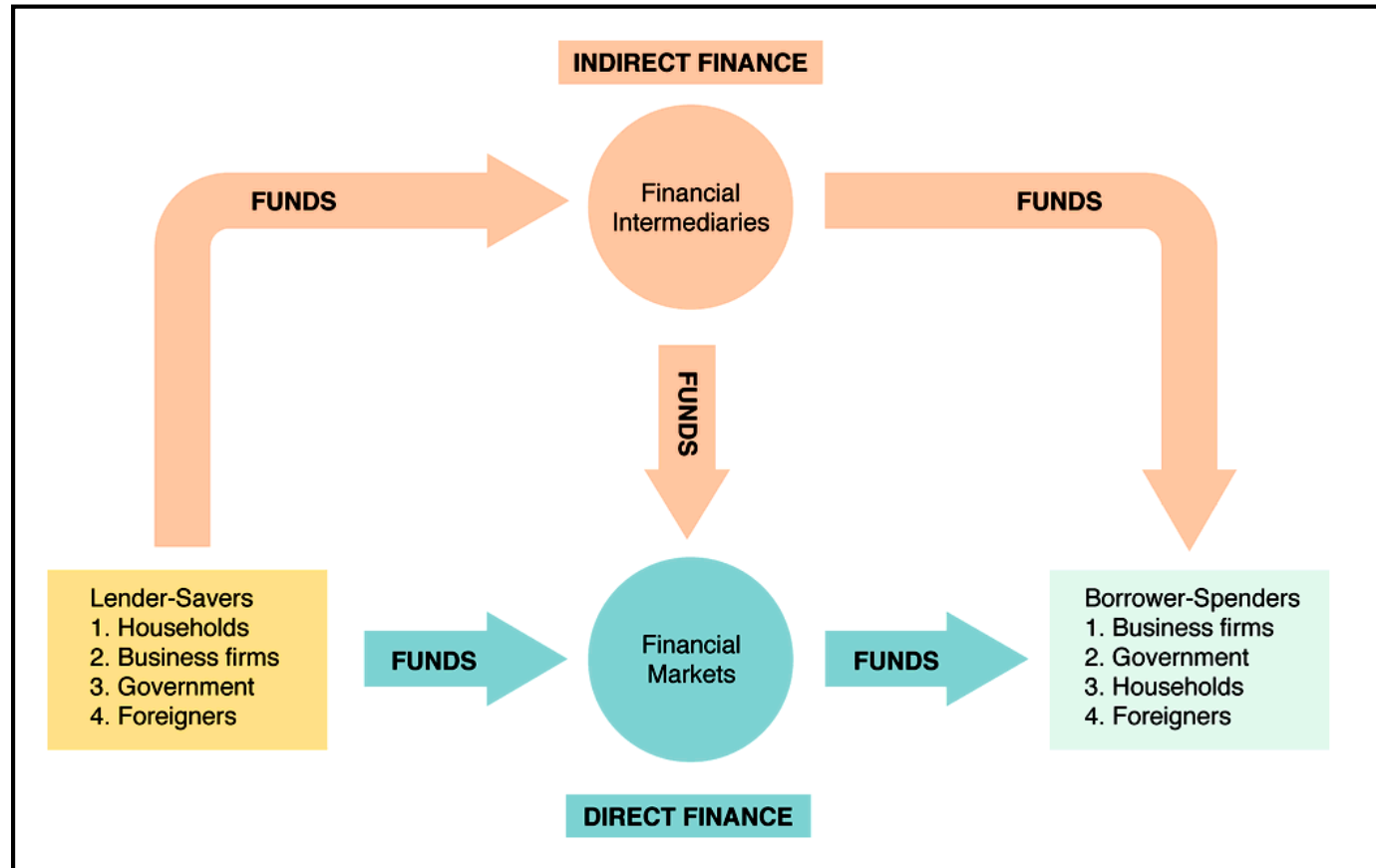
Principles that are at Work in a Well-Functioning Macro-Economy

- ❑ Financial system moves scarce loanable funds from those who save to those who borrow to buy goods and services and to make investments in new equipment and facilities, so that the global economy can grow and the standard of living can increase.
- ❑ The basic function of the *economic system* is to allocate scarce resources – land, labor, management skill, and capital – to produce the goods and services needed by society.
- ❑ The global economy generates a flow of production in return for a flow of payments.
- ❑ The circular flow of production and income is interdependent and never ending.

Financial Markets and Economic Stability & Growth....Continued



Financial Markets and Economic Stability & Growth....Continued



Financial Markets and Economic Stability & Growth.....Continued

- ❑ Most economies around the world rely principally upon *markets* to carry out the complex task of allocating scarce resources
- ❑ Markets also distribute *income* by rewarding superior producers with increased profits, higher wages, and other economic benefits.
- ❑ There are essentially three types of markets within the global economic system.
 - I. The *factor markets* allocate factors of production (land, labor, skills, capital) and distribute income (wages, rent) to the owners of productive resources.
 - II. Consuming units use most of their income from factor markets to purchase goods and services in the *product markets*.
 - III. The *financial markets* channel savings to those individuals and institutions needing more funds for spending than are provided by their current incomes.

Financial Markets and Economic Stability & Growth.....Continued

- ❑ The financial markets enable the *exchange of current income for future income* and the *transformation of savings into investment* so that production, employment, and income can grow, and living standards can improve.
- ❑ The suppliers of funds to the financial system expect not only to recover their original funds but also to earn additional income as a reward for waiting and assuming risk.

Functions Performed by Global Financial Systems and Markets

- ❑ ***Savings function.*** The global system of financial markets and institutions provides a conduit for the public's savings.
- ❑ ***Wealth function.*** The financial instruments sold in the money and capital markets provide an excellent way to store wealth.
- ❑ ***Liquidity function.*** Financial markets provide liquidity for savers who hold financial instruments but are in need of money.
- ❑ ***Credit function.*** Global financial markets furnish credit to finance consumption and investment spending.
- ❑ ***Payments function.*** The global financial system provides a mechanism for making payments for goods and services, in the form of currency, checking accounts, debit cards, credit cards, digital cash, etc.
- ❑ ***Risk protection function.*** The financial markets offer protection against life, health, property, and income risks, by permitting individuals and institutions to engage in both *risk-sharing* and *risk reduction*.
- ❑ ***Policy function.*** The financial markets are a channel through which governments may attempt to stabilize the economy and avoid inflation.

Factors Tying All Financial Markets Together

- ❑ ***Credit.*** The shifting of borrowers among markets helps to weld the financial system together and to balance the costs of credit in the different markets.
- ❑ ***Speculation and arbitrage.*** Speculators who gamble on their market forecasts and arbitrageurs who watch for profitable arbitrage opportunities help to level out prices and maintain price consistency among the markets.
- ❑ ***Perfect and efficient markets.*** There is some research evidence suggesting that financial markets are closely tied to one another due to their near perfection and efficiency (this is highly debatable).
- ❑ ***Financial markets in the real world.*** In the real world however, market imperfection and information asymmetry exist.

Macroeconomic Objectives

Economic Growth

Full Employment

Balance of Payments

Economic Stability:

❖ Price stability

❖ Interest rate stability

❖ Exchange rate stability

The Unstable Nature of Economic Stability

- ❑ Most mainstream economists are of the view that economic busts are the outcome of various external shocks to the economy.
- ❑ Hyman Minsky (1919-1996) thought even in the absence of such shocks, the capitalistic economy has an inherent tendency to develop instability.
- ❑ The instability culminates in severe economic crises.
- ❑ The key mechanism that pushes the economy towards a crisis is the accumulation of debt.

Accumulation of Debts and Emergence of Economic Crisis

- ❑ During "good" times, businesses in profitable areas of the economy are handsomely rewarded for raising their level of debt.
- ❑ The rising profit attracts other entrepreneurs to join in and encourages them to raise their level of debt.
- ❑ Since the economy is doing well and borrowers' financial health shows visible improvement, this makes lenders more eager to lend.
- ❑ **As time goes by, the pace of debt accumulation starts to rise much faster than borrowers' ability to repay and serve the debt.**
- ❑ **It is at this stage that the foundation for an economic bust begins to develop.**

Accumulation of Debts and Emergence of Economic Crisis.....Continued

□ There are three types of borrowers:

- ❖ *Hedge borrowers* who can meet all debt payments from their cash flows.
- ❖ *Speculative borrowers* who can meet interest payments but must constantly roll over their debt to be able to repay the original loan.
- ❖ The third group of borrowers Minsky labeled *Ponzi borrowers*; they can repay neither the interest nor the original loan. These borrowers rely on the appreciation of the value of their assets to refinance their debt

Accumulation of Debts and Emergence of Economic Crisis.....Continued

- ❑ According to Minsky, the financial structure of a capitalist economy **becomes more and more fragile during the period of prosperity.**
- ❑ In short, the longer the prosperity, the more fragile the system becomes.
- ❑ **Financial Instability Hypothesis (FIH) has the following features:**
 - ❖ Banks and other intermediaries strive to innovate with regard to the assets they acquire and the liabilities they market. In doing so they lure investors to buy the debt by means of sophisticated innovations

Accumulation of Debts and Emergence of Economic Crisis.....Continued

- ❖ The chase for making more profits causes players in financial markets to place their money in various investments that have very little substance — such as subprime-mortgage-backed securities.
- ❖ **What makes these investments attractive is sophisticated packaging and the relatively high rate of return (creative financing methods).**
- ❖ Once economic conditions change, the true state of many borrowers comes to the surface and leads to a crisis.
- ❖ **Lenders curtail their supply of funds and borrowers are pushed to bankruptcy,** for they cannot renew their borrowing to pay debts a financial crisis emerges.
- ❖ According to Minsky's story, then, as time goes by, both borrowers and lenders tend to become reckless, which ultimately leads to a financial crisis.

Does the expansion of credit inevitably lead to instability?

❑ The Misconception about credit:

- ❖ It may surprise many that in “real terms” credit is not money.
- ❖ It is saved final goods and services.
- ❖ Money is **medium of exchange, store of value, and unit of account**. It reduces transaction cost in trade and allow the economy function efficiently. Money allows people channel real savings, which in turn permits the widening of the process of real wealth generation.
- ❖ Whenever an individual lends some of his money, he in fact **transfers his claims on real savings to a borrower**.
- ❖ The borrower can now, **by means of money, secure real savings** (final goods and services) that will support him while he is engaged in the production of other goods and services.

Does the expansion of credit inevitably lead to instability?.....continued

- ❖ loaned **real savings are the key for economic expansion**. It is real savings that fund the production of tools and machinery, which in turn permits the expansion of final goods and services.
- ❖ when a saver lends his savings, he takes a risk.
- ❖ There are always **danger of overinvestment or underinvestment** and this show itself by depressed or increased profits.
- ❖ This process will lead to a withdrawal of real savings from where profits have fallen and channeled towards where there is a higher profit.
- ❖ This shows that if investment goes too far in one direction, and not far enough in another, counteracting forces of correction will be set in motion.

Does the expansion of credit inevitably lead to instability?.....continued

□ Unbacked lending and economic instability:

- ❖ A factitious claim on real saving can cause the problem.
- ❖ The borrower who holds the “empty money” exchanges it for final consumer goods.
- ❖ Note that the borrower takes from the pool of real savings without any additional real savings having taken place, all other things being equal.
- ❖ The genuine wealth producers, those who have contributed to the pool of final consumer goods — the pool of real saving — discover that the money in their possession will get them fewer final goods.
- ❖ The reason for that is that the borrower has consumed some of the final goods.
- ❖ The problem is the diversion of real wealth from wealth-generating activities towards the holders of new money, which emerged "out of thin air."
- ❖ Consequently, with less real savings, less real wealth can now be generated.

The Role of Central Bank (Federal Reserve System)

A Theoretical and Ideological Debate about the Source of the Problem of Unbacked Lending

- ❑ The contention is that lack of oversight and timely intervention of Central Bank (Federal Reserve System) may enable banks to engage in the reckless expansion of credit that makes this system unstable.
- ❑ Fed makes sure that banks have enough liquidity and are to a great extent protected through a number means and provisions such as, FDIC insurance, too big to fail, discount window lending, and other emergency help schemes.
- ❑ Skeptics see the modern banking system as one huge monopoly bank, which is guided and coordinated by the central bank.
- ❑ Free market advocates follow FIH to the extent that it presents the problem but disagree with its conclusion that Capitalistic economy is inherently unstable.
- ❑ They put the blame on Central Bank and its intervention in the unrestraint working of the free market.

What to Look for in the Months or Years Ahead

The Pressure of a Soft/Recessionary Economy

- ❑ A growing number of economists believe that the US economy is going through a hard period challenged by:
 - ❖ Energy crisis
 - ❖ Uncertain world politics
 - ❖ Financial problems
- ❑ Real estate market coupled with harder lending conditions is likely to continue its current decline well beyond this year. The length of the decline is unknown and some predict that it will continue to the end of present decade.
- ❑ The situation can get worse if the economy faces inflationary pressure. Higher interest rate will cause greater loan defaults, deeper financial crisis, lower investment and the stagflation will become more evident.

What to Look for in the Months or Years Ahead...Continued

Have we learned anything for the future to avoid a similar problem?

- ❑ There are some who believe that there is no need for the government to step in.
- ❑ The question is that If help is not coming who will lose?
- ❑ **Based on OECD estimates, some \$300 billion losses are centered in real estate. That is just one-half of 1% of Americans' net worth. In a \$14 trillion economy, such losses can be swallowed down with a slight burp.**
- ❑ But as financing projects (production, housing, etc.) are delayed the harm will spread to the general economy and its firms and workers. That is what economic policy should aim to mitigate. **We can see the pain of such adjustment in our own county.**
- ❑ Bailout has a limited impact and may not solve the problem although rise of short term economic problems will force the government to consider it.

What to Look for in the Months or Years Ahead...Continued

- ❑ Government involvement in the subprime mortgage markets is on a level not seen since the resolution of the S&L crisis.
- ❑ opponents of the bailout plan argue that the default rates on many of these modified mortgages are extremely high — **estimating in the range of 40% to 60%** — and in an environment where the borrowers in question have little home equity in properties where asset values are falling, **the cost of postponing an eventual foreclosure and default is potentially greater to the holders of the loans.**
- ❑ The Government plans have yet to be announced and the details to be revealed.

What to Look for in the Months or Years Ahead...Continued

Is there anything to be learned for the future?

- ❑ **Who are responsible? Every party involved for their own reason:**
 - ❖ **Fed did not want to prevent the problems despite warning for a number of reasons:**
 - ❖ **Encourage economic growth through booming real estate market in face of a troubling stock market.**
 - ❖ **Assisting low income households in becoming home owners**
 - ❖ **Not having the means of controlling credits and setting standards in the market.**
 - ❖ **Political pressure in being seen as an organization impeding the booming real estate market.**
 - ❖ **Lenders were equally or even more responsible for taking advantage and luring borrowers to borrow at a relatively higher rate and larger amount that they could afford to borrow.**
 - ❖ **Bowers were responsible for underestimating the risk and aiming to take advantage of the easy credit market for the hope of earning higher equity in a booming real estate market.**

What to Look for in the Months or Years Ahead...Continued

Are we going to protect ourselves in the future?

- ❑ The simple answer is no for the following reasons:
 - ❖ **Government will continue to intervene for variety of political and economic reasons. This will continue to cause moral hazard and some inefficiency in the future financial markets .**
 - ❖ **The urge to develop “Creative Financial Schemes” will continue to be a prevailing and dominating feature of our future financial markets. Like everything else in life creative finance will have its positive and negative impacts on the future economy.**
- ❑ The current financial crisis will gradually be resolved by an upward trend in real estate market prices within a year or longer and the next cycle towards a boom will start again.

What to Look for in the Months or Years Ahead...Continued

- With higher home prices subprime mortgage loans will be reset at lower rates and many will be phased out.
- The legacy of current debacle will put some restraints on future home mortgage markets.
- Federal Reserve System will be pulled between opposing views as how it should conduct its business as always.
- The new boom will leave nothing but a memory of the current problems.
- And we learn once again that “Economic Stability” is highly unstable.

Reference and source

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Q and A

Thank You