Notes on Hyman Minsky's Financial Instability Hypothesis

Summary
Prior to WWII, economies were described by frequent and severe depressions (as those in 1819, 1837, 1857, 1873, 1893, 1907, and 1929). The postwar era by contrast has not seen a single depression since 1929 but has instead been plagued by frequent and destabilizing financial crises (as those in 1966, 1970, 1974, 1989, 1991, 1998, and 2000). Hyman Minsky explains these historical facts by hypothesizing the evolution of capitalism into several stages. He links those stages of development to the specific activities being financed at the time and the specific source of financing (the institutional structure of the financial system). He concludes that institutions are crucial for explaining the type of financial crises, but the stages of finance themselves always seem to move through three very distinct stages – from hedge, to speculative, to ponzi finance. He further concludes that depressions have virtually disappeared because of the evolution of capitalism from a strictly laissez-fair system to a mixed economy, i.e., one that is described by a strong market system coupled which a strong public sector. The role of the public sector is twofold—to provide a floor to declining demand (this is the role of what Minsky calls Big Government) and a floor to collapsing asset prices (this is what he calls the role of Big Bank). This is why we no longer observe such prolonged and deep economic crises as the depressions of the previous century. The vast evolution in finance, financial instruments and financial intermediaries, however, coupled with the inherently destabilizing effect of investor expectations and behavior has been the catalyst for many of the financial crises we observe today. This *mimeo* briefly reviews some of the ingredients of Hyman Minsky's Financial Instability Hypothesis.

The Roles of Big Government and Big Bank
The Great Depression in the 30s brought the end of laissez-faire and the advent of a mixed economy. An institution was needed which could offset the large deficit in aggregate demand and could prevent a financial sector meltdown. This institution was the public sector, including its two agents–the Federal Government and the Federal Reserve.

1. Big Government: The Federal Government as the *Spender of Last Resort* (important role for government deficit spending)

    a. It can provide income and employment through the government spending multiplier effect
    b. It can be a source of profits, boosting expectations and improving the general investment environment
    c. It can be a source of financial wealth for the private sector—deficit spending provides government bonds (i.e., *safe* assets) to the private sector. (Remember bonds are offered by the Fed to drain excess reserves injected into the banking system as a result of government spending. This

is necessary *not* to finance government expenditures, but to maintain the interest rate target).

2. Big Bank: The Federal Reserve as the *Lender of Last Resort*

    a. It provides the necessary funds when banks are short of reserves
    b. It can prevent a run on the banks
    c. It insures bank deposits up to $100,000
    d. It can maintain stable interest rates

Since WWII, capitalism has become stronger but full of crises, while before WWII depressions were the order of the day.

Why the change?

Economies generally decline due to insufficient aggregate demand. But they also decline because of increased financial instability. Hyman Minsky argued that the nature of capitalism is inherently unstable and that we need a Big Bank and a Big Government to stabilize the economy when necessary.

Government deficit spending can be stabilizing in the following cases:

1. When investment falls, government spending can offset the corresponding decline in demand.
2. When unemployment rises, unemployment insurance and other transfer payments allow people to maintain consumption of the bare necessary goods and service but also to service their debts, so that they don't lose their assets. For example, if both parents in a household suddenly lose their jobs, unemployment insurance allows them to continue making payments on their mortgage or car loan, so that they don't lose the house or the vehicle. Minsky was also a proponent of the government as the Employer of Last Resort.
3. Finally government deficit spending results in an increase in bonds held by the private sector, which are safe assets that can quickly and easily be converted into cash, i.e., they are highly liquid.

Nonetheless, even Big Government and Big Bank cannot prevent entirely crises. But they *are* able to set a floor and soften the fall.

An Illustration

Too much debt held by households or firms can be the main trigger of economy decline. It is not necessary for all agents to go bankrupt to generate a big crisis. Sometimes all you need is one or two major firms to become insolvent, which can bankrupt their creditors (usually banks), which in turn will no longer be able to serve their other clients.

Any financial troubles which Chrysler experiences for example can bankrupt an entire bank. That's why we need a Big Bank (The Fed) to prevent major financial institutions from becoming insolvent just because one of their clients is no longer able to pay off their loans. This does not always mean a bailout, but if Chrysler collapses and the company has a large credit line with Bank of America (BOA) for example, then BOA may no longer be able to provide liquidity to its other clients who have accounts at BOA. This is why it is crucial for the Fed to be able to supply reserves through its function as the Lender of Last Resort, so that normal banking activity continues and runs on banks are prevented.

Financial Instability

Minsky regards financial instability as an inherent part of modern capitalism and links it to financial institutions, instruments of finance, and the state of expectations. Financing is crucial for carrying out investment activities in advanced economies. The system is inherently dynamic and driven by innovation. The rules of the game can change often as new financial institutions emerge over time. For example, as the economy evolves and new profit opportunities appear, financial institutions will find ways to circumvent old regulations and to create new instruments or methods to finance firm activity. Sometimes these new innovations facilitate investment projects and drive growth; sometimes they are the source of the financial crisis.

Stability is Destabilizing

Stability and progress have perverse effects. They are actually destabilizing. As banks become more comfortable with economic conditions, they begin extending riskier and riskier loans believing that profit expectations are generally high. Similarly firms may become overly optimistic and start investing into less productive projects, thereby taking on greater investment risk. Since investment has to be financed, the forms of finance change according to these waves of optimism or pessimism.

The Evolution of Finance

The evolution of finance moves in 3 stages:

1. Hedge Finance
2. Speculative Finance
3. Ponzi Finance

1\. Hedge Finance

When a firm borrows it must make sure that it is able to meet its payments.
These payments have two components

1. The loan principle
2. The interest on the loan

Hedge finance is when inflows are considerably higher than outflows. In other words, the project that is being funded is generating more than enough income to pay off both the principle and the interest on the loan.

2\. Speculative Finance

The more confident firms/banks are about economic conditions, the riskier and less profitable project they may undertake.

If this happens, income generated from these projects may not be enough to cover the payments on the loan. In a situation where a firm is able only to pay the interest on the loan but does not generate enough funds to pay for the principle of the loan, the firm is engaging in speculative finance.

Under speculative finance, inflows are equal to or less than outflows. It is not necessarily disastrous to engage in speculative finance, if it is for a short period of time. Firms usually do that if they expect an increase in earnings at a later date, which will then allow them to continue servicing and paying off their debt.

But what happens if expectations are upset and incomes *decline* instead? In this case, the firm moves from speculative to ponzi finance.

3. Ponzi Finance

Ponzi Finance is when the income from the project is so low that a firm cannot even meet its interest rate payments. In such a situation, to avoid default, firms frequently borrow. In other words they actually *increase* their indebtedness in order to pay the interest on their debt. Clearly this is an unsustainable situation, since at some point the firm will either be unable to secure more loans or the lenders will start calling in past loans.

Normally, firms get into such a situation involuntarily. Their expectations are not met, economic conditions deteriorate rapidly and sharply, resulting in much lower income. To avoid insolvency firms borrow more, which perversely brings them closer to bankruptcy.

(Can you link the late 90s-early 2000 record levels of personal bankruptcies to the preceding credit card boom and the evolution of finance outline above? Did household engage in Hedge, Speculative or Ponzi finance of consumption? What about the IT boom in the late 90s?)

The Role of the Fed

One of the problems with Speculative and Ponzi finance is that the interest rate is generally variable and at the discretion of the Federal Reserve.

It is not necessary for a project to go sour and generate lower than forecasted revenue. Sometimes all that it takes to bring a firm into a speculative or ponzi finance is a change in the interest rate.

Imagine, for example, that the Fed is worried about inflation and decides to raise interests rates. Firms quickly realize that now their debt burden has increased and that they have to pay more in interest payments than before. So even if their income (inflow) stays the same as projected, their payments (outflow) have increased. If the resulting increase in outflow is significantly greater than the income generated, firms will either stop making principle payments and will only service the debt (speculative finance) or they may have to borrow just to pay the interest (ponzi finance).

In short, inflation fighting can be extremely destabilizing if firms' activities are highly leveraged. Raising rates can bankrupt borrowers faster.

Debt Deflation

If most firms have engaged in ponzi finance and are unable to borrow any more to service their debt, they may be forced to sell their assets. A rush to sell off assets causes asset prices to collapse, which actually (and again perversely) generates less income than expected. So if asset prices fall significantly, even their sale will not bring about the desired income necessary to service the firms' debt. This process is called debt deflation and is extremely dangerous because it results in melting away of wealth in the economy as a whole.

The sale of assets leads to a collapse of asset prices and makes them worthless, making the whole crisis much worse. This is a situation where the Fed (Big Bank) is necessary to place a floor on assets and stop the downward spiral. This is done by bankruptcy laws, rolling over debt, freezing payments for a while, providing liquidity to the system.

Big Government can also play an important stabilizing role. If deficit spending kicks in and generates the necessary aggregate demand in the economy, some of the projects which firms have undertaken will start generating the necessary funds firms need to service their debt.

A mixed economy is necessary because the evolution of capitalism has made it inherently unstable. Modern financial capitalism is inherently flawed because growth and stability actually create the conditions for downturns and instability. We therefore, need a Big Bank and a Big Government to smooth out the cycle. A Big Bank is necessary to set a floor for asset prices and to maintain a stable interest rate policy. A Big Government is necessary to spend enough in a recession to offset the declines in aggregate demand.

How did capitalism evolve?

Capitalism Revisited:

The role of financial institutions in the development of capitalism:

From "Hyman Minsky's Theory of Capitalist Development" by Charles Whalen, Working Paper 277, August 1999. www.levy.org

TABLE I. STAGES OF CAPITALIST DEVELOPMENT

	MERCHANT CAPITALISM	INDUSTRIAL CAPITALISM	BANKER CAPITALISM	MANAGERIAL CAPITALISM	MONEY-MANAGER CAPITALISM
What Distinctive Activity is Financed?	Transportation of Goods; Acquisition of Inventories; Goods Production	Industrial Expansion (Acquisition of Factories and Machines)	Industrial Consolidation (Trusts and Mergers)	Macroeconomic Growth and Stability	Increase of Stock—Market Values and Corporate Profits (Often Involves Merger, Buyout or Break-up)
What is the Pivotal Source of Financing?	Commercial or Merchant Bank	Investment Bank	Investment Bank	Central Bank	Institutional Investment Funds (Pension & Mutual Funds)
What is the Fundamental Enterprise or Entity Financed?	Proprietorship and Partnership	Industrial Corporation	Combined Corporation	Private Sector (Financed through the Banking System; Conglomerate Form Dominates in Business)	International Corporation
What Group Holds the Greatest Economic Power?	Power is Dispersed (Merchants and Bankers)	Investment Bankers	Investment Bankers	Corporate Managers (Assumes Government Macroeconomic Coordination)	Money-Fund Managers
What is the Distinctive Input?	Labor	Machinery	Management (Coordination of the Industry and the Firm)	Macroeconomic Coordination by Government; Microeconomic Coordination by Business Managers	Expertise in Finance and Accounting

FOR FURTHER READING:

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