

Minsky, Instability and Financial Regulation

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Hyman Minsky and Post-Keynesian Economics

- Blaming the “bubble” for the current crisis is rather like blaming the car for an accident—when we ought to take a good long look at the driver, and at the bartender who kept the whiskey flowing all evening before helping the drunk to his car after last call... Unfortunately, those in charge of the financial system have for a very long time encouraged a blurring of the functions, mixing drinking and driving while arguing that the invisible hand guided by self interest can keep the car on course. The current wreck is a predictable result. (Wray 2007)

Minsky and Financial Instability Hypothesis

- See Hyman Minsky (1986), Minsky (1992), Kregel (2008), Wray (2008, 2009)
- Using a Keynesian approach, Minsky argues crisis are endogenous to the capitalist system because of an inherent financial instability embedded in the system rather than euphoria or mania.
- The difference in Minsky's interpretation from the mainstream arises from a basic departure from the mainstream (Smithian) perspective regarding markets and market efficiency

- The major difference is that while Smithian theory argues markets will always lead to efficient and socially desirable outcomes, Keynesian view holds that markets may lead to the capital formation to be “ill-done”
- Therefore, in the Smithian tradition, mainstream economics claims that crisis occur due to flaws in the institutional structure rather than any inherent characteristic of a market economy
- Another distinction: Keynes argues that the economic problem is the “capital formation of the country” rather than allocation of scarce resources as argued by Robbins.

- Minsky defines a capitalist economy as a set of interrelated balance sheets and income statements.
- Every financial unit has assets and liabilities with varying characteristics with respect to liquidity, maturity, etc.
- Liabilities are commitments to make payments either at a specific dates or when a contingency arises.
- Assets are either financial or real, so they generate yields when a contract is fulfilled, when production takes place or when they are sold or pledged.

- Hedge Finance: A strong financial position that does not require buying/selling of assets or borrowing/lending due to shortages in cash flows. Large cash flows from operations or large cash reserves.
- Speculative Finance: A position where cash flows meet interest payments on outstanding debt, requires rolling over of debt or liquidation of assets to meet cash flows. These units roll-over their liabilities.
- Ponzi Finance: A position where cash flows do not meet interest payments on outstanding debt, therefore relies on continuous increase in asset prices to be sustainable. Without increase in asset prices, failure to roll-over debt results in rapid liquidation of assets.

- Whether or not the economy will be a sustainable equilibrium-seeking system depends on which financing type is dominant in the economy
- If hedge units are dominant, the economy will be stable.
- As the share of speculative and Ponzi units increase, so does instability and risk of a crisis.
- So the first theorem of FIH hypothesis states that the economy has stable and unstable financing regimes, dominated by different financing units

- The second theorem of the FIH: Over long periods of stability, economic units move from hedge-financing to speculative and Ponzi financing.
- The idea draws from Keynes view that when speculation leads to over-investment and debt financing, it will result in increased demand and inflation.
- In such cases, the typical central bank action is to raise the interest rates to reduce inflationary pressures

- The implication is that rising interest rates push more economic units from hedge to speculative, and from speculative to Ponzi financing.
- As a result, units with shortfalls of cash will try to make position by liquidating assets (if there exists a market)
- This will bring about a collapse of asset values and start a debt-deflation process.
- Another important concept: Margin of safety
- Margin of safety can be defined as the excess of future cash flows from income-generating assets or production over cash outflows arising from liabilities

- Margin of safety refers to the buffers any economic unit can take against unexpected shocks to prevent the emergence of need for borrowing or liquidation of assets. (liquid securities, cash flow over debt commitments, cash reserves)
- The margin of safety for a bank on a loan can be roughly considered as the difference between the value of the investment project and the amount of the loan. (compensating deposits, collateral or any other form of agreement to help the bank recover the loan if expectations fail)
- During stable economic times, margins of safety are reduced. (Stability is destabilizing)

- This is not necessarily due to banks becoming euphoric or over-optimistic about economic conditions. The recent stability of the economy validates riskier projects.
- This is because criteria used to evaluate the riskiness of loans is backward-looking.
- From the banker's perspective, the probability of default is lower, and the ability to pay back is improving as recent data suggests.
- Leading to lending to previously declined projects. Neither the banker nor the borrower is aware of declining margins of safety.

- Excess borrowing, overinvestment and asset price bubbles.
- More and more economic units are drawn to Ponzi-financing, requiring the continuation of the increase in asset prices.
- ‘Minsky moment’: End of the Minsky cycle when lending stops. Ponzi Units face problems of financing cash flows on debt commitments, fire sale of assets.
- “ when over-indebted investors are forced to sell even their solid investments” (Lahart2007); “when lenders become increasingly cautious” (Magnus 2007c); “credit crunch or Minsky moment” (Whalen 2008); and “when the Ponzi pyramid financial scheme collapses” (Davidson 2008)

- The result is a debt-deflation, as the fall of prices increase real value of debt and necessitate further asset sales, with increasing excess supply in the market. Financial institutions face severe liquidity and **solvency** problems.
- 2008 Credit Crunch: A Minsky Moment? (See Kregel2008)
- Not in the exact sense. No observation of gradual decline in margin of safety to fragile levels through stable times.
- Rather, the margin of safety was not sufficient in the first place.
- Main difference from a typical Minsky Cycle: The relation between banks and borrowers.

- Particularly sub-prime mortgages have in-built decline in margins of safety. (Remember the terms of ARMs)
- To maintain the same cushion of safety as the beginning when interest reset date comes (depending on the terms of the ARM),
 - ✓ the borrower's income should increase at the same rate as interest payments
 - ✓ or the interest rates should stay at the same level or lower than initial mortgage contract (refinancing),
 - ✓ or house prices should increase for higher collateral (refinancing)
- This is true for all adjustable-rate loans and mortgages but the problem is much more pronounced in sub-prime mortgages and other types of low-quality loans.

- Rather than hedge units turning into Ponzi-units gradually through falling margins of safety, combination of jump-starting Ponzi-units with in-built declining margins of safety.
- Unregulated derivatives market, hedging opportunities through CDS and payment schemes in big financial institutions accelerate the cycle.

- Why do economies not display more instability than observed then?
- Minsky and Ferri (1992) argue that the economy has thwarting systems which prevents it from passing over and below certain thresholds
- Floor- and – ceiling models, where the economy moves between upper and lower boundaries
- Even the belief that ‘they will not let it happen’ is stabilizing on its own (self-fulfilling prophecies)

- Consider the hyperinflation case and the role of confidence in the monetary and fiscal authority in hyperinflationary episodes.
- The thwarting systems prevent the economy from displaying explosive behaviour. Therefore, a transitory period that resembles stability can be achieved.
- However, every economic unit learns policy and develops an awareness of these thwarting systems to adjust its behaviour and to overcome the problems these systems create against its own benefit

- Three basic such systems are customs, institutions or policy interventions which change the outcomes that would prevail if every unit pursued only its own interest.
- A good example is always a central bank and its lender of last resort role (consider the importance of this in the provision of liquidity during the credit crunch)
- Palley (2009): Claims the credit crunch is the end of a Minsky super-cycle.
- A super Minsky cycle works over regular Minsky cycles and occurs when the economy's thwarting systems have been eroded. In this sense, super-cycles occur over regular Minsky cycles.

- The range of the fluctuations during regular Minsky cycles increase as economic agents thrive to overcome the thwarting systems (remember that at the core of this process are the banks, which continuously innovate to increase profits and overcome regulatory restraints)
- This does not necessarily imply a determinist linear increase in the severity of recessions through time. (Figure below shows the linear case)
- It is only the floors and ceilings that are changing, while individual recessions may be milder or stronger depending on context

Figure 3. Stages of the super-Minsky cycle.

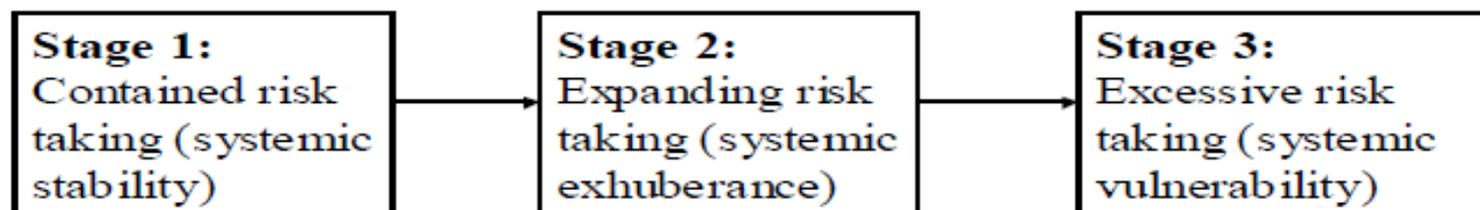
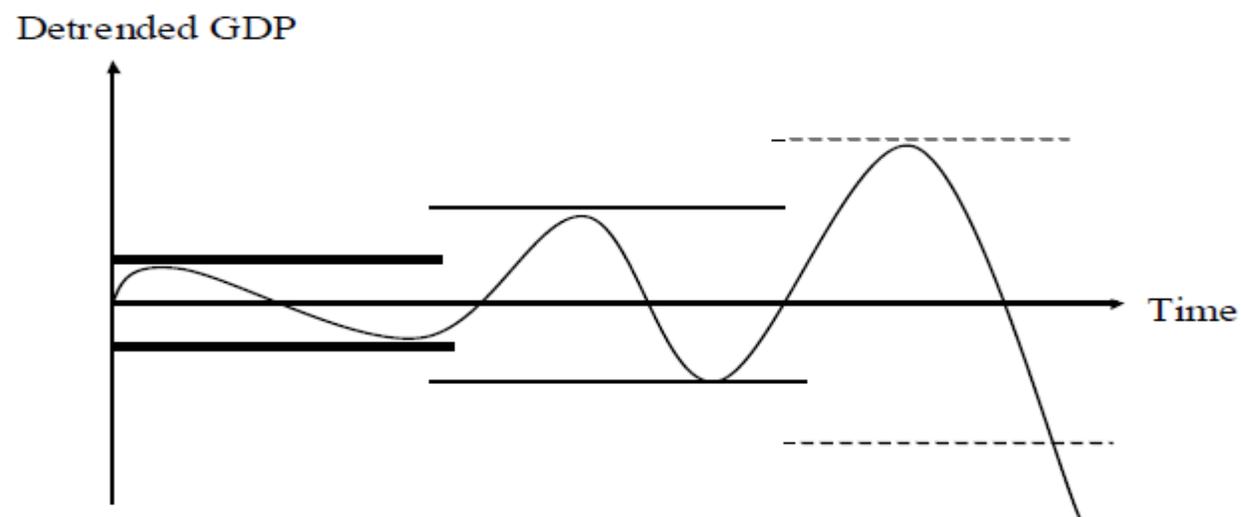
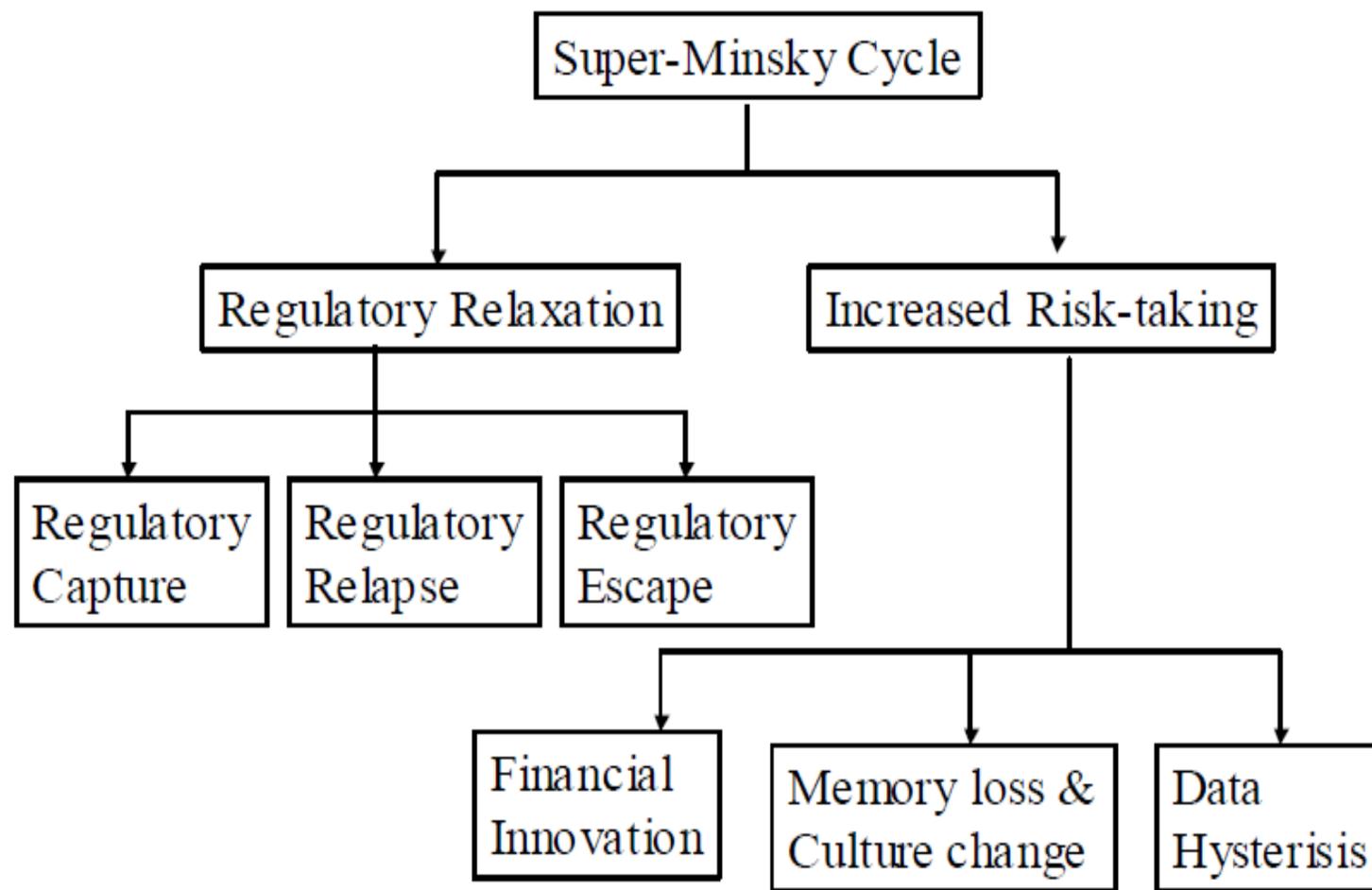


Figure 4. The full Minsky cycle through time.



- A super-cycle occurs over long periods of time, with two simultaneous processes: Regulatory Relaxation and Increased Risk-Taking
- The regulatory relaxation increases the supply of risky instruments, while increased risk taking increases both supply and demand.
- Passes through three stages: Regulatory capture (reducing profits for financial sector), regulatory relapse (easing restrictions) and regulatory escape

Figure 6. Details of the super-Minsky cycle.



- Following a crisis, stricter regulations are put into place (Great Depression). If these regulations are binding and can effectively be implemented, they reduce profits for the financial sector.
- This creates incentives for the financial sector to try to capture regulatory authorities (mainly via lobbying) This is the regulatory capture phase.
- The regulatory relapse phase corresponds to the period during which regulations are eased, as regulators re-interpret past crisis and are affected by the recent stability brought about by the past regulations in the recent years.
- In most cases, this period is accompanied by an intellectual justification, and a generally changing social attitude against regulation (greater freedom?)
- The final phase is regulatory escape, which occurs through financial innovation that lies outside the domain of past regulation. (Derivatives for instance)

Regulation vs. Deregulation

“Talk about centralisation! The credit system, which has its focus in the so-called national banks and the big money-lenders and usurers surrounding them, constitutes enormous centralisation, and gives **this class of parasites** the fabulous power, not only to periodically despoil industrial capitalists, but also to interfere in actual production in a most dangerous manner— and this gang knows nothing about production and has nothing to do with it.”

Karl Marx

Capital Volume III, Chapter 33

- The last few decades has seen significant financial deregulation across the globe
- Remember the regulatory escape phase of a super Minsky cycle identified by Palley.
- Opening of capital accounts by many countries and allowing capital flows into financial markets.
- Financial account has been an important source of attracting surpluses for countries with endemic trade deficits.
- A move towards flexible exchange rates, independent, inflation targeting central banks

- Promotion of pillars such as “self-regulation, market discipline, risk management”
- Minimal government involvement in the financial markets in order to avoid hampering financial innovation, as innovation has been seen as key to market and economic growth.
- Therefore, the regulatory approach has been the minimum possible distortion of financial market mechanisms, while attempting to maintain a high enough buffer of safety as a precaution against financial problems.

Efficient Market Hypothesis

- In its core, EMH states that its price contains all the information about a security (bond, stock, mbs etc.)
- In this sense, markets are extremely efficient in reflecting information about stocks and about the market as a whole.
- In the case of a new information being available on a stock, this information is spread and incorporated into the price of the stock almost without delay
- Therefore, the natural implication is that it is impossible to outperform the market consistently

- Neither technical analysis of the recent behaviour of price and volatility, nor fundamental analysis of the company's earnings, assets etc. will enable an investor to pick up undervalued stocks.
- No such informed selection will generate more returns than a random selection of stocks.
- Since all information from today is incorporated in today's price, tomorrow's price will only reflect tomorrow's information, which is unpredictable, stock prices are also unpredictable.
- EMH is closely related to the idea of a "random walk" in statistics, where present value of a variable is not related to its past value and is simply a random departure from it. Therefore, it cannot be predicted from past values.
- Burton G. Malkiel (1973) "A Random Walk Through Wall Street"

- According to the understanding of the current regulatory mechanism, financial markets are likely to promote stability and meet the demands of consumers efficiently
- In contrast to the Minskyian perspective, in this approach financial markets are not inherently unstable and prone to resource misallocation and systematic crisis.
- According to this view, financial crisis arise not due to the nature of the financial markets, but rather due to several imperfections within these markets.
- Asymmetric information, moral hazard, government intervention in markets, non-homogenous products etc.

- As a natural extension of this argument, the free market approach argues that perfect competition will ensure financial stability, and therefore it is vital to improve the transparency and availability of information in the markets to ensure agents are fully aware of economic risks involved.
- This might require developing new indices for instance, or providing financial education to improve agents' understanding of financial data (Shiller 2001)
- **Most importantly, the current regulatory mechanism sees financial crisis arising due to “shocks” to the economy, therefore regulatory practices mainly focus on providing large enough buffers against these shocks.**
- These buffers can take the form of capital adequacy ratios, liquidity buffers, loan-loss reserve requirements. And ideally, they should be determined by the markets rather than the regulators, as markets participants are better informed than regulators on the possible size and likelihood of these shocks.

- Another important pillar of the current regulatory mechanism is the excessive importance it attaches to economic growth, in most cases at any cost.
- Financial regulation is conducted in a way that will have the minimum negative impact on economic growth, rather than focusing on the underlying risks building up behind those growth numbers.
- In general, when tighter regulations are proposed, opponents (financial sector and its lobbyists) argue that new regulation will hamper economic growth and thus make everyone worse off.
- Particularly during stable times, recent stability and high growth are used to justify the non-regulated financial system and its success, despite systemic risk and financial fragility may be increasing during those high growth episodes (2002-2008 period is a great example of this)

Capital Buffers

- The current regulatory system mainly focuses on imposing tighter capital and liquidity buffers in order to promote financial stability. (All Basel I, II and III regulations are regarding such buffers)
- It is argued that when capital buffers are high, banks “have a skin” in the game and will therefore be more cautious in their lending and other business practices.
- First and foremost, in most cases, these buffers are way too small to provide enough protection against large downturns
- Second, financial fragility can still increase despite such buffers as moral hazard problems are not solved by these buffers.

- As we mentioned during Minsky crisis, one important characteristic of financial markets is that during periods of stability buffers are gradually reduced (margin of safety)
- Further, the backward looking data generated from stable times gives misleading information on the existing buffers, as loan default rates are low during these periods.
- Therefore, the capital/liquidity buffers are always way below the necessary levels. An adequate buffer level would need to take into account the possibility of tail events such as Great Depression and the Credit Crunch. However, such large buffers are unacceptable to the financial sector.
- The idea of buffers to prevent financial fragility rests on the idea that financial crises are rare events, and not systematic. Therefore, appropriate precaution is to conduct “stress tests” under different shock scenarios. This approach is totally different from the Minskyian idea that financial markets inherently create cycles of stability and instability in the absence of strict and appropriate regulation.

- In this sense, while Minsky sees financial fragility as a process developing endogenously through time, the current regulation considers it as the inability of the financial system to withstand a strong unexpected shock.
- In a Minskyian world, buffers are useful but they are “the last line of defence” rather than a prevention mechanism, which is what financial regulation should aim at.
- The growing financial fragility is in most cases related financial innovation and the emergence of new products which lie outside the domain of existing regulation (Credit default swaps)
- Innovation is essential in order to maintain/increase profitability for the banking sector in a fiercely competitive environment.

Bank Business Model

- Banks' business model rests on maximizing return on equity.

$$\textit{Return on Equity (ROE) = Profits/Equity}$$

$$\textit{ROE = Profits/Assets x Assets/Equity}$$

$$\textit{ROE = Profits/Assets x Leverage}$$

- In an expanding and stable economy, as bank balance sheets grow, profits/assets ratio declines as markets get saturated and investment opportunities fall.
- This also happens during periods of low interest rates, as yields on government bonds, which are among the main sources of income for banks, fall reducing Profits/Assets

- To combat this decline in Return/Equity, banks will either choose to try to increase profits/assets by inventing new products/lowering their lending standards/taking more risk or try to increase leverage.
- In both cases, financial innovation is essential in order to bypass the existing regulations.
- Therefore, even if regulations place constraints on leverage ratio, or quality of assets, financial fragility might increase through innovation of new products.

“To the extent that the examination procedure lags rather than anticipates financial innovation, higher insurance premiums [and capital requirements] on what examiners take to be riskier institutions may not be a deterrent to risk-taking. In an expanding economy, the increased cost of doing business caused by higher deposit insurance premiums [and capital requirements] will be an incentive for banks to invent new, unregulated forms of financing.”

(Campbell and Minsky 1987: 258)

- Keep in mind that higher capital buffers will reduce the return on equity ratios, triggering the mechanism highlighted above as banks desperately search for new markets & customers, take more risk or increase leverage in order to increase the returns on equity.
- The more domestically and internationally competitive the financial sector is, the stronger the pressures on banks to reduce lending standards/innovate in order to increase leverage or returns on their assets.
- Therefore, strict lending standards will be much more effective to prevent financial fragility than buffers

A Minskyian Framework for Regulation

- **Tymoigne, Eric (2011)** “Financial Stability, Regulatory Buffers, and Economic Growth: Some Post-recession Regulatory Implications” Levy Economics Institute Working Paper: 637.
- Financial instability is the natural outcome of a market economy, particularly following long stable periods.
- Capital and liquidity buffers will not reduce fragility in the financial system, since the problem is the emergence of Ponzi units in the system and banks will continuously try to innovate new products.

- The goal of financial regulation must be to detect and eliminate Ponzi units in the economy.
- This requires a change in the general approach to economic performance. Rising profits, increasing net worth, high economic growth may go alongside a rising financial fragility.
- Remember the definition of a Ponzi unit: A Ponzi unit's cash flows do not meet its interest payment obligations so such a unit requires continuously rising asset prices in order to re-finance debts or liquidate assets to meet cash flows.
- So in this sense, emergence of Ponzi units does not necessarily require an asset bubble. As long as the assets held by Ponzi units are increasing in price, debt can be rolled over/serviced.

- Further, the detection of asset bubbles is very difficult, as it is hard to identify the fundamental value of an asset such as a stock/house. Therefore, a collective rationalization of inflated prices is possible, especially during high growth periods when all parties involved in the asset bubble have interests in inflating it further.
- Essential questions to detect Ponzi finance include:
 - ✓ Is continuous refinancing needed?
 - ✓ Is this need growing relative to outstanding debt?
 - ✓ Is underwriting collateral based or income based? (Collateral based lending is more prone to Ponzi financing)
 - ✓ Are rising asset prices needed for this economic process to continue?
- In exploring these questions, key financial indicators include the following: the proportion and growth of refinancing loans, the dynamics of debt and asset prices, and the source and time structure of net cash inflows relative to cash outflows.

Regulating financial innovation

- A successful regulatory framework should keep a close eye on the innovation of new financial products.
- These products should not be allowed to market until full benefits and potential risks associated with the product are fully understood (like in pharmaceuticals and food industry)
- Regulators should follow up their investigations on financial innovations, as in some cases slight modifications and/or introduction of an innovation to new markets changes the dynamics completely (i.e interest only ARMs)

- Fierce competition in the financial industry for return on equity forces banks and other institutions to continuously innovate.
- Therefore, a heavily regulated/centralized financial system protected from this fierce competition may prove to be much more stable.
- Bad practices in banking should be strictly punished in order to give clear signals and eliminate moral hazard issues. Particularly, the too-big-to-fail banks of U.S and U.K are now bigger than they used to be, creating an immense moral hazard.

Who will regulate the regulators?

Browser tabs: "Retired" Dallas Fed Chief x devrim

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"Retired" Dallas Fed Chief Joins Barclays As "Senior Advisor"



Submitted by Tyler Durden on 06/29/2015 17:30 -0400

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Spin revolving door, spin.

Recently "retired" Dallas Fed chief Richard Fisher — who really, really believed that talk of falling oil prices negatively affecting the Texas economy amounted to "bull droppings" until a JP Morgan analyst reminded him that the "only thing dropping in the Texas economy [was] jobs" — is following proudly in the footsteps of Ben Bernanke, Jeremy Stein, and Janet Yellen (if you count unofficial, off-the-record 'consultations') by becoming the latest Fed policymaker to ink a lucrative deal 'advising' the private sector.

As WSJ reports, Fisher will become a "senior advisor" to Barclays starting on July 1:

Barclays PLC on Monday named Richard Fisher, who recently retired from his post as head of the Federal Reserve Bank of Dallas, as senior adviser at the bank.



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- A government does not need to borrow from the financial markets in order to be able to spend, unless it imposes restraints on itself with laws and regulations.
- Central banks can always finance government deficits by buying government bonds. Since central bank profits are transferred to the government, the deficits are financed at effectively zero cost rather than paying interest on debt.
- So should we continue transferring wealth to a bunch of parasites because we cannot find a better way of restraining government spending?
- In Canada, a think tank is suing the finance minister and the Bank of Canada for not financing (at least part of) government debt at zero cost and causing Canada to spend billions of dollars in interest payments to the financial sector and therefore directly transferring wealth to the financial sector.

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