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**GOVERNING THE BANKING INDUSTRY:
A SEVERE CASE OF SUPERVISORY FAILURE**

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Governing the banking industry: A severe case of supervisory failure¹

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Abstract

After summarizing the birth and basic notions of credit, money and banking, sections 1 to 4 review the extraordinary potential, but also the substantial core risks of fractional reserve banking. The appearance of central banks, fiduciary monies, prudential regulation and supervision, as well as technological change, had huge impact on banking, but its basic business model remained the same old, risky one. Sections 5 and 6 describe how the contagion risk proper of the opaqueness and informational asymmetries of commercial banking plus the external diseconomies associated to systemic crises have justified the growth of thick safety nets, guarantees and government involvement in critical situations. These realities require not only top-level technical expertise in the supervisory bodies, but also outstanding moral integrity and political independence within their heads. Sections 7 and 8 pretend to summarize the key factors surrounding the subprime mortgage lending bubble and the supervisory failure leading to the worst economic crisis in seventy years.

1. Specie money

The use of widely appreciated, well known, divisible species or commodities (such as salt, grain, cattle or cloth) as **standards of value** goes back in time to at least 3000 years before the Common Era. Physical amounts of such species would be used as **means of payment** or hoarded as **stores of value or wealth**, but as important as those roles would be the virtual role of serving as the common accounting or valuing unit for credits and obligations.

By year 2500BC a few metals (gold, silver, copper) had displaced the other, less durable species, in the performance of those functions. It was not until the VI Century BC, however, that metals were fractioned in pieces (coins, coinage) of identifiable weight or content. Prior to that innovation, the delivery of precious metals in pieces (such as discs or bars) required them to be weighted in each opportunity.

At some point the term “**money**” became the generic name of any instrument performing the above-mentioned functions, and the particular goods that had been used as money in the past (whether metallic or otherwise) were called “**specie-monies**”. In the old times the contents and names of weight units varied widely across geography,

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cultures and civilizations, that being the reason for the variety of names and values of early monies (mina, shekel, talent, dinar, drachma, ounce, pence, etc.) even if sharing a common underlying metallic specie.

2. Credit

The value or purchasing power of the specie used as money could vary, thus subjecting their holders to what is today known as a “market risk”. But there was nothing resembling the “default risk” of a credit operation.

“**Credit**” (from Latin “credere”: faith, confidence, trust, belief) depicts the action of a person (the “lender”) ceding to another person (the “borrower”) a valuable (the “principal”) for a period of time (the “maturity term”). The borrower acquires the obligations of returning the principal to the lender in due time and paying the lender certain amounts (known as “interest”). Beyond the corresponding accounting entries in the books of each part, the rights of the lender and the obligations of the borrower are usually stated in a written instrument – issued by the borrower and held by the creditor – known as “promissory note”³. Although people lend each other things different than money, the principal of most credit operations involve amounts of money.

3. Banks, bankers and early fiduciary monies

Although people have lent money (or other things) to each other since the beginnings of the times, long ago a particular category of men surged. They were called “**bankers**” and distinguished themselves by their skills in extending credit. Though many started up their business by lending their own money, their activity grew and evolved rapidly by accepting money lent to them by third parties. Thus, bankers would issue promissory notes or obligations (called “certificates”) in favor of people lending money to them (“depositors”), and acquire promissory notes or obligations issued by people to whom they lent money (“borrowers”). **Contrary to brokerage** – the scarcely risky business of selling companies’ stock (equity) and promissory notes to third parties – **bankers fully assumed the risk and responsibility** of honoring the certificates or obligations issued by them (their liabilities) regardless of when and how much they would recover from the promissory notes making the bulk of their assets. They came to be the men **standing right in between** lenders and borrowers, inevitably assuming the risk represented by the probability of having to write off a fraction of the promissory notes owed to them. Such risk, known as the “**credit risk**”, had to be covered by the personal wealth or capital invested by the bankers in their businesses. Hence, depositors do not inquire about the wisdom of their bankers’ decisions; they just trust the person and/or the institution of the banker. The asymmetry represented by the scant or even nil information that banks’ creditors (depositors) have about banks’ assets is aptly described by the term “**opaqueness**”.

One day a bank-issued promissory note (or certificate) provided its holder the same certainty or confidence provided by the holding of specie-money. That day, the

³ The expressions in brackets are applicable to credit operations involving fungible species like money. They may differ significantly from those applicable to credit modalities involving distinguishable and/or registered properties, such as rentals or leasing. Other expressions often used as synonyms for promissory notes are “certificates”, “obligations”, “bills”, “notes”, “bonds”, “securities”, “accounts receivable” or “payable”, as well as the familiar “iou”.

first day that a credit instrument played a monetary function (in this case, being a store of value) was the birthday of “credit-money” or “**fiduciary-money**”.

On top of the credit risk (inherent to banking) bankers could and would assume a different risk: **The “term”, “maturity” or “liquidity” risk**. Often referred to as the “**liquidity gap or mismatch**”, this risk is represented by the mismatch between the average term maturity of the certificates issued (the bankers’ liabilities or obligations), and the average term maturity of the promissory notes (the bankers’ assets or receivables). Typically, the keeping of a contingent **reserve** of money is the prescribed policy when the average term maturity of the liabilities is shorter than that of the assets.

These mismatches and risks required bankers to be as careful, as they were savvy and astute. But with an adequate mix of prudence and audacity their business could be nicely profitable.

4. The banking obligation “at sight” (in banknotes or in account balances) as a superior form of fiduciary money at the cost of a massive increase in banks’ liquidity gap, mismatch or risks

If the primitive, basic banking promissory notes or obligations typically known as “time deposits” (certificates specifying an amount owed and a date of maturity) could be acceptable stores of value, the specificities of their values and the variety of their maturity dates made them unpractical as **means of payment**. It was not until the late XIII Century AD that western bankers introduced an **ad-hoc** obligation intended to serve for settling payments or cancelling obligations without the need of delivering coin or bullion, that is, to be used as means of payment. The new obligation had the singularity of maturing “**at sight**”, meaning that the issuing bank would pay or redeem it in metal on demand, at its mere presentation by a bearer, without having to wait a term (or period of time) to maturity. They were instrumented either as “**banknotes**” (that is, **physical** certificates printed in paper and fractioned in small, prefixed denominations⁴) or in the **dematerialized** form of credit balances in “**sight accounts**” opened at banks, against which their holders could issue payment orders⁵.

This transcendent innovation would be called **paper-money**, but being a bank-issued obligation it essentially was **credit-money** or **fiduciary-money**⁶. The practicality of the innovation was immediately obvious: Handling wads of banknotes or writing checks was certainly much easier and less costly than storing or carrying metal pieces. The key to its success, however, lied not only in its practicality, but on the **confidence** the invention could muster. Counting on the promise of redemption or conversion to metal “at sight”, holders of banknotes or account balances trusted that the value (or purchasing power) of their holdings would remain **identical** to their face value in metal. It was this certainty – beyond their practicality – that made banknotes and checks widely accepted in payment for goods or in settling debts.

Given the maturity-at-sight (or zero-term maturity) of these obligations, **the risk-free rule** for issuing banks would have been to hold metal reserves close to the full value of the banknote issue plus their clients’ outstanding credit balances in “sight

⁴ Also known as billets or currency.

⁵ Primitive payment orders were known as “bills of exchange” followed soon by the “check”. Later on technological progress in communications gave birth to dematerialized payment orders activated by magnetic cards, computers, telephones and the like.

⁶ China deserves the credit for the invention of paper-money several decades before being introduced in the West by the innovative bankers of the intensely trading cities of what today is northern Italy.

accounts”. In other words, the issuance of obligations payable “at sight” should not have grossly exceeded the amounts of gold and silver deposited in exchange for them. Pretty soon, however, **the very trust** commandeered by checks and banknotes, their widespread circulation and the relatively small amount of them presented for redemption or conversion into metal, resulted in issuing banks finding themselves with huge amounts of unused gold and silver. Taking notice of the phenomenon and after making the necessary calculations, bankers started issuing extra banknotes or allowing the issuance of checks not in exchange for deposits of metal, but to be lent to businesses and individuals ready to sign the corresponding promissory notes.

The creation or issuance of fiduciary-money by means of extending credit (or buying promissory notes) allows borrowers to increase their expenditure without other people having to contract theirs. Thus, it translates into a **net addition to aggregate expenditure** or demand and that is why it is called “outside credit (or money)”, distinguishing it from the “inside credit (or money)” that would result from loans allowing borrowers to spend more but at the expense of the expenditures of the lenders. But it also results in a **major increase in the banking risks**, in particular in the liquidity mismatch or banks’ liquidity gap.

One result of such innovative behavior was that the specie- or base-money reserves held by banks fell to just a small fraction of their sight and other short term liabilities, giving rise to the expression “**Fractional reserve banking**” to denote this particular model of banking. The extra mismatches and risks stemming from the issuance of “at sight” fiduciary-money demanded bankers to be even more careful, savvy and astute. Not all, however, garnered these conditions.

Either out of **greed, corruption, sheer ignorance, lack of experience and/or miscalculation**, some bankers issued too much money (banknotes or “sight account” balances) and/or extended far too many risky loans funded with such a **volatile liability**. One day one of these bankers would find it impossible to redeem in metal the banknotes and/or checks presented in his premises, an event that – once known – could result in a “**run**”, that is: an abnormally high number of checks and banknotes presented for conversion. Such sequence of events would end in the forced interruption of the convertibility of the money issued by the irresponsible banker and its final devaluation. Compounding matters or making them worse, the intrinsic opaqueness of the banking business would often result in the spread or contagion of an individual bank’s crisis (its insolvency or even its simple illiquidity) to other banks, triggering the most feared and dreaded of the scenarios: A systemic banking crisis⁷.

5. Banking and money creation governance: Legal-tender fiduciary-monies, lenders of last resort, the birth of central banks and the consolidation of the fractional reserve private banking model subject to prudential rules and supervision

⁷ In the pre fiduciary or banking-money world, frequent cases of devaluation and inflation had resulted from the debasement of the weight standards (or metallic contents) of coined-money. A well known example is the price inflation suffered by the Roman Empire in the early III Century AD resulting from a dramatic reduction in the silver content of the *denarius*. In the forty years spanning from 200 to 240 AD some prices within the Empire grew three-fold. These currency-debasement inflations should be distinguished from those stemming from a significant increase in the availability of gold or silver. Due to such factor, in the one hundred and fifty years following 1492, when huge supplies of these metals arrived from America, the price level in Europe grew six-fold.

Over time a series of developments and innovations gave rise to a particular kind of banks, later evolving into what are currently known as “**central**” banks. One of these developments was the granting by governments of a “**legal tender**” privilege to the monies issued by some of these banks. The legal-tender privilege – extended by law, act of parliament or prince – gave some particular banknotes **the legal power of definitely cancelling payments and obligations**. When this happened – throughout the XVIII and XIX centuries – the use of fiduciary-monies was firmly established. Then, when in the XX Century the link between legal-tender fiduciary-monies issued by central banks and metals was definitely severed, they all but replaced gold and silver as the **base-money**⁸. Another feature of these distinguishable banks was their readiness to act as “**lenders of last resort**” for banks presumed to be solvent, but temporarily illiquid or short of cash. The transaction involved the rediscounting of promissory notes originally discounted by the distressed banks, thus the name “rediscount window” given to the facility. Historically, rediscounting and last resort lending were the early components of what today are known as “financial safety nets”, giving birth to the imposition of prudential rules on those bankers willing to benefit from them. Terms such as “supervision”, “examiners” and “compliance” would gradually become the order of the day for many bankers.

Legal tender fiduciary-monies, last resort lending facilities and prudential regulation, as well as technological innovation, had a huge impact on banking, but the basic banking business model remains the same risky old “Fractional reserve banking”. Today few care if their Dollar, Yen, Euro, Swiss Franc or Pound Sterling balances or banknotes are or are not convertible into gold or silver, as long as the purchasing power of such fiduciary-monies remains stable in terms of an ample basket of goods and services. For modern private banks **legal tender, central bank-issued base-monies** are what gold and silver were to old-time bankers. They no longer issue banknotes; the instrumentation of their obligations “at sight” evolved from the traditional “demand” and/or “savings” accounts to the modern shares issued by “money market mutual funds” and/or the so-called “repo” agreements; and instead of writing checks, current technologies allow account holders to activate payment by means of magnetic cards, telephones or computers. But keeping a relatively small reserve of base-money⁹, each time a bank authorizes a firm or an individual (that has signed the corresponding promissory notes) to draw cash, write checks or issue electronic transfers over an uncovered account, that bank is issuing an extra amount of “outside”, aggregate demand-enhancing fiduciary-money.

6. Achieving monetary and financial stability, a demanding challenge requiring highly skilled, honest central bankers and supervisors

Founded not on steel or concrete, but on an extremely fragile, delicate web of confidence, the entire modern money & banking architecture is a potent powerhouse of growth, as much as a devilish source for trouble. It can fuel aggregate demand and output as fast as it can destroy either or both.

The **challenge of today’s central banks** is to calibrate, monitor and control the growth of the **aggregate** outstanding balance of fiduciary money (the sum of the legal-

⁸ Base-money, monetary base, primary-money and high-powered money are synonyms for central bank-issued money, constituting in today’s world the ultimate certainty in value and liquidity.

⁹ Banks hold their reserves of legal tender base-money either in banknotes at their vaults or in sight account balances within the central banks.

tender monetary base **plus** the amount created by the network of private banks) to the needs stemming from the growth of potential output and employment. The money stock must grow slow enough to avoid inflation and/or “price bubbles”, but not slower than what is needed to keep output close to the Economy’s potential. **In normal times**, central banks will try to keep due course by means of buying or selling securities (obligations) in the open market (to augment or diminish the monetary base) and/or increasing or lowering the minimum reserve and capital requirements imposed on private banks (to augment or diminish their money-creation potential). But “normal times” require not only the achievement of a desired **speed of growth** (of the stock of fiduciary-money). As important as the latter is the need to monitor the **quality** (or health) of the assets or receivables that back the money stock, assets that range from gold holdings, to top-quality securities issued by triple-A rated sovereigns to the simple, unsecured personal loans or credit card payable balances of individuals.

Although depositors (holders of private bank-issued money) are neither required, nor expected to monitor the quality of the receivables held by banks, such quality is critical in measuring the latter’s solvency and capital and/or when in need of liquidity (that is, central bank-issued money) banks tap the markets to sell or pledge their receivables. The **importance of this item** explains why minimum lending standards and asset-quality monitoring make the bulk of the thick body of prudential regulations imposed on private banks and, also, why such a **high level of technical skills, integrity and moral standards** are required and expected to prevail at the proper supervisory bodies¹⁰.

When bankers’ and supervisors’ serious mistakes result in a severe drop in the quality of banks’ assets, a **collapse** in the demand for private bank-issued money (and other private sector obligations) – such as the one that surfaced late in 2007 – may ensue, and there is a corresponding **increase** in the demand for central bank-issued money (legal tender banknotes) or its close substitute, Treasury-issued obligations. Therefore in such scenarios the issuance of extra central bank money might **not be inflationary**, it simply avoids deflation. Central banks will credit the extra money to private banks in exchange for their receivables. Private banks will immediately re-pass it to depositors-on-the-run who, in turn, will store it (either in banknotes or in sight accounts), not spend it. The operation permits to avoid the disgusting and contagious spectacle of private banks closing their doors and more importantly, it allows the public to satisfy their demand for higher balances of central bank money without private banks having to cut back their loans, **thus avoiding – at least – a massive credit crunch** and the ensuing recession¹¹.

In such circumstances, however, and in order to minimize the possible “**moral hazard**”¹² these rescue operations must be aimed at helping holders of bank obligations (“depositors”), but not equity holders or bank owners, who must pay for their risky or even reckless credit decisions. The rationale for such central bank or Treasury interventions is not to avoid recessions altogether, but to somewhat tame the business cycle. If things go well after some time the panic will recede and the public will find incentives to rebalance its portfolios, replenishing higher-yield private-bank issued obligations for low- or zero-yield central bank money. But if the credit quality of the

¹⁰ Minimum capital requirements linked to the riskiness of assets and minimum reserve requirements linked to banks’ liquidity gaps make another large portion of prudential rules.

¹¹ In the early 1930’s, the lack of a policy like the one described provoked a three-year long catastrophic recession.

¹² “Moral hazard” is a term originating in the insurance industry in reference to the possibility that insured individuals might incur in reckless behavior.

receivables accepted by the central banks (as collateral for the loans made to commercial banks) turned out to be very bad, the latter may incur in losses that in the end will be charged on taxpayers. Although central banks go into great pains and precautions to avoid losses when performing rescue operations, the speed at which decisions must be made (in the middle of crises) impede the objective to be achieved always.

A big question is: What **justifies** the extraordinary guarantees and facilities granted by governments to the banking industry – unknown to other industries – and, furthermore, performing massive rescue operations that may result in important losses to be charged to taxpayers? One answer is: Only the extraordinary character and roles performed by this industry might justify such a favorable discriminatory treatment. And it is the sum of these exceptionalities that justify the unusually heavy regulation and intense supervision to which the industry is subjected, as well as the need for excellence in skills and ethics in the regulatory and supervisory bodies of the banking system, **for even a minor failure on their part might result in very high costs for entire economies.**

7. The booming market of subprime mortgage loans and a severe case of supervisory failure

Since the mid-1980's the particular instruments known as "securitization" have been one of the fastest growing financial tools in the banking industry. In one of its variants can be defined as the action of pooling large numbers of individual receivables and entrusting the cash flow generated by them to the repayment of (a set of) newly issued standardized certificates or securities¹³. Pooling a bunch of credit receivables does not reduce the individual risk of each one, but by arranging the newly issued securities in different "tranches" with varying levels of "seniority" or "subordination", the aggregate or total risk (of the pool) is reallocated in ways such that makes the investment suitable to a wide set of market participants with different risk tolerance¹⁴. Risk-averse will be attracted by the securities boasting the highest "seniority" at the cost of a relatively lower return. Risk-takers will seek the securities belonging to the "junior" or "subordinated" tranches, obviously boasting higher expected returns. "Securitization", thus, allow investors to buy financial instruments that fall mid-way between the traditional time deposit and a direct loan made to an individual company or individual. The return will be somewhat higher than that of the time deposit and the risk lower than that of a direct loan.

Banks arranged SPV's over a wide variety of cash flow-generating obligations and the resulting securitized obligations (CDO's, ABS') enjoyed considerable demand in both, domestic and foreign financial markets. The senior tranches of some of these securitized obligations looked good enough as to attract high grades from credit rating

¹³ The operation involves the well known legal figure or contract known as "trust". It includes the figures of the "setlor" (the original owner of the receivables that will be pooled to constitute the "underlying assets" of the trust), the "trustee" (the person administering and managing the trust), and the "beneficiaries" (the ones investing in the securities issued by the trust). In the financial world these arrangements or structures are often referred to as Special Purpose Vehicles (SPV's) and the securities issued are known as Collateralized Debt Obligations (CDO's) or Asset Backed Securities (ABS').

¹⁴ The "seniority" or "subordination" of a security will reflect the privilege or preference in being paid. A security is "senior" relative to another one ("junior" or "subordinated") when it enjoys the privilege of being paid first. The junior or "subordinated" security will be repaid only when the "senior" one has been fully honored.

agencies, becoming eligible for large institutional investors. It is very important to note – however – that the desired reallocation of risks will only be achieved if the individual credit risk of the pooled, underlying entrusted assets is not **highly correlated** or collectively vulnerable to the same risk event or scenario. Under such circumstances, a high correlation of those individual risks may result even the “senior” tranches going astray. In the case of obligations issued by **standard** mortgage debtors the low-correlation condition is met because the default risk of these borrowers does not depend on the home price cycle, but on the employment cycle. A standard mortgage debtor will not default his loan as long as he remains employed, but even in a phase of growing unemployment only a fraction of these debtors will be fired and not necessarily all at once.

Extensively employing the “securitization” technology, in the years spanning from 2001 through 2006 the U.S. banking industry embarked itself in an extraordinary expansion of the **subprime** mortgage lending business, the word subprime denoting debtors with poor credit stories and/or sub-standard risk indicators. **This boom turned out being one of the saddest examples of supervisory failure and led to the worst systemic banking crisis since the early 1930’s.** In regards to these operations the following observations must be made:

- Loans made to subprime borrowers carried abnormally high risk ratios (loan-to-value and service-to-income) meaning that debtors would only be able to meet their obligations while the principal accrued a misleadingly low initial “teaser” rate (typically 2% p.a.).
- When after the first two years interest rates were “reset” to market levels payments ballooned, making it impossible for many subprime debtors to meet them.
- In order to avoid default their only option was to refinance their mortgages. But a massive and continuing refinancing of subprime mortgages would only have been possible in a utopian scenario of ever-growing home prices.
- These hard facts mean that in a world of falling home prices the individual risk of default among subprime borrowers can be expected to be **highly correlated**.

Misleading low-income borrowers by means of “teaser” rates was only a part of the scam¹⁵. The bankers needed to mislead regulators and investors, as well. And they did it by having their subprime-related securities insured against the risk of default by a top-rated insurer such as AIG and triple A-rated by well known credit rating agencies (such as Moody’s, Standard & Poor’s and Fitch). It is difficult to accept that these leading Wall Street firms could have ignored such hard facts of the subprime mortgage lending boom¹⁶.

If it is surprising the extent to which banks, insurance companies and rating agencies were able to mislead so many American and foreign investors, much more surprising is the extent of the failure of the proud and well staffed U.S. financial regulators and supervisors. Due to macroeconomic reasons and the state of shock

¹⁵ Although the subprime credit boom had began earlier, by holding the Fed Funds rate below inflation during 2003 and 2004, Greenspan’s Fed played a key role in accelerating it.

¹⁶ Default insurance contracts (know as “credit default swaps”) and the A+ credit ratings were the “enhancements” or “sweeteners” used by banks to sell their subprime-related securities not only to individuals, but to institutional investors, as well. Lacking them, pension funds, for instance, would have never invested in these securities.

prevailing in the U.S. in the aftermath of the September 11, 2001 terrorist attacks, the Federal Reserve Board (FRB) carried on a policy of extremely low interest rates through mid-2004. Low interest rates tend to benefit debtors at the expense of creditors, so normally during periods of low rates the quality of bank assets tend to improve. However the opposite happened: Banks' asset quality worsened significantly. Let's review the most striking mistakes made by supervisors:

- The FRB, the Office of the Comptroller of the Currency (OCC), the Securities and Exchange Commission (SEC) and other banking, financial and insurance supervisors, however, failed to check the exponential increase in lending to subprime borrowers.
- In particular, they failed to slow down the origination of new loans and the refinancing of existing ones with loan-to-value ratios close to 100% when home prices were already (late in 2002) at record-high historic levels. In such particularly risky scenario the correct policy stance would have been to impose banks a very high capital requirement on these loans, no matter how they were or would be reorganized or pooled in SPV's. If bankers insisted in extending loans in such conditions they should have been forced to do it with their money, not other peoples' money.
- They also failed to detect and object a flawed incentive scheme in which the originators' profit was disconnected from the riskiness of the originated loans.
- It is notable the forbearance of the insurance industry's regulatory bodies that permitted or at least tolerated the selling of credit-default insurance on such risky obligations.
- It is also notable the forbearance of the agencies in charge of enforcing the rules requiring consolidated accounting and supervision on large banking conglomerates, that should have monitored the mounting importance of their off-balance sheet items, commitments and obligations.
- Furthermore, the OCC blocked in courts every attempt made by state authorities to warn families about the abuses hidden in the borrowing arrangements that they were being offered¹⁷.

If at middle levels some staffers expressed concern and even alarm of what was going on, at the top – either due to a “laissez faire” philosophy (the case of Mr. Alan Greenspan, head of the FRB) and/or bureaucratic power schemes (the case of John Duggan, head of the OCC) – the decision was to let things unravel with no significant action taken.

In 1977 Hyman Philip Minsky (1919-1996), an American economist of Russian descent, formulated the so-called “financial fragility hypothesis”. Minsky described the dynamics of financial crises stating that during periods of prosperity, financial structures evolve endogenously shifting from robustness to fragility, up until the moment when a sufficiently large number of weak banks trigger the collapse. Minsky's sharply realistic descriptions so attracted the attention of academics, that the zenith, pre-crisis moments before the collapse became known as “**Minsky moments**”.

¹⁷ See: Predatory Lenders' Partner in Crime – How the Bush Administration Stopped the States From Stepping In to Help Consumers, by Eliot Spitzer, Governor of New York, “The New York Times”, Thursday, February 14, 2008.

The **Minsky moment** of the subprime mortgage lending boom began to unfold in mid-2006, when home prices began to decline (after **tripling** over a decade). Then, the ensuing losses resulting from a tsunami-like onslaught of defaulting mortgages began to erode the diversity of SPV's "safety cushions": Default insurance contracts, "junior" tranches, equity tranches and banks' capital.

8. Epilogue and lessons

In August 2007 news of the massive wave of subprime defaults hit the markets and doubts were shed over the creditworthiness of even the highest rated, low-return "senior" securities. The immediate scramble to find out who had such "toxic" assets and who didn't paralyzed the interbank overnight credit market. This triggered massive central bank interventions to fill in the gap. But the crises wouldn't stop there. Soon after and throughout most of 2008, a full-fledged bank run ensued: In what is known as a "flight to quality" process, investors and savers wanted to get rid of bank-issued money (deposits, CDO's, Asset-backed securities, repos, etc.), demanding in exchange – even a loss prices – central bank-issued money or Treasury-issued obligations (T-Bills or Bonds). The new, massive rescue operations staged by the FRB and the U.S. Treasury avoided a chain of bank closures and a depression resembling the one suffered from 1930 through 1933, but even then a severe credit crunch and a sharp recession could not be avoided. It can be said that only by end of 2010 the recession had ended and a measure of confidence had been reestablished in financial markets.

Extreme pro-market ideologues argue that the innovative scam used to oversell subprime mortgage-backed securities – a scam stemming from the greed of bankers and financiers – allowed millions of poor Americans to reach home ownership, the fallout of the crisis (including the several hundred of thousands currently being evicted from their homes) being the natural, unavoidable and even necessary "collateral damage" of "social learning". They argue that nothing could have been expected from more stringent regulations, as regulators themselves might be greedy and not necessarily smarter than market participants. The fact of the matter, however, is that market efficiency and fair competition do need a "**level and transparent playing field**" set up by rules and governmental enforcement. This is the more so in banking, an industry that owing to its key roles enjoy a singularly high degree of government guarantees. With more supervision and better enforcement of prudential regulation less subprime borrowers would have been misled by "teaser" interest rates, home prices would not have tripled in a decade, investors would have enjoyed better information about the individual and aggregated risks of the assets underlying their securities, the world would have been saved from a massive financial crisis and a recession and, yes, less poor Americans would have gained home ownership but less, also, would have suffered the pains of foreclosures and evictions.

For many years there has been an ongoing, heated debate about whether banking regulation and supervision should operate within or outside the central banks, whether central banks were to manage the last resort lending window or not, as well as whether or not they should handle the responsibility for executing failed bank resolutions and administering the deposit insurance scheme. In the decade of 1990, the process that in the United Kingdom led to the setting up of the Financial Services Authority (1997) raised the issue whether the supervision of the whole array of financial markets players (not only banks, but securities brokerage firms, mutual funds and other institutional investors such as insurance companies and pension funds) should be brought together

under a single agency, or to be managed by separate agencies for different market segments.

It is interesting to note that there has been a simultaneous debate about the conveniences or inconveniences of **separating** certain components of the financial safety net, and about the advantages and disadvantages of **joining** other parts of it. The debate goes around issues such as conflict of interest, consolidation, conglomerates, cross-border challenges, etc, and each part has arguments to prove that its position contributes to the overall effectiveness of the financial safety net. Our experience and experience elsewhere suggest that failure or success in the field of financial safety nets does not depend on the character of the organizational chart, but on the **integrity, character and independence** of its leadership. **If its components and institutions are led by highly qualified and experienced professionals, adequately empowered, free from political pressures and business lobbies, as well as from rigid ideologies, then timely and coordinated decisions will have a chance to prevail, no matter how concentrated or de-concentrated the organizational chart is.** Vice versa, if the authorities of the safety net institutions are subject to pressures and/or lack the adequate skills, independence and enforcement powers, then they are doomed to fail, regardless of the theoretical quality of design of their institutions.