

# THE BIG BANK THEORY OF MONEY AND NPV BLACK HOLES

STATIC ASSUMPTIONS CAN ONLY HAPHAZARDLY DESCRIBE THE NATURE OF HUMAN INTERACTIONS

*"The human psyche has a very difficult time comprehending nonlinearity and convexity. While few people can even comprehend convexity exposure, what is even less transparent is the hidden convexity that exists in the way complex systems self-organize. I call this **shadow convexity** and it is much harder to understand and measure. In life, shadow convexity exists when fragility or robustness is incentivized to such a degree that it becomes unknowingly institutionalized"* **Christopher Cole** [Volatility & the Prisoner's Dilemma](#) 2015

*"Maybe there is in human nature a deep-seated perverse pleasure in adopting and defending a **wholly counterintuitive doctrine** that leaves the uninitiated peasant wondering what planet he or she is on"* **Robert Solow** 2006

*"The study of money, above all other fields in economics, is one in which **complexity is used to disguise truth or to evade truth, not to reveal it.** The process by which banks create money is so simple the mind is repelled. With something so important, a deeper mystery seems only decent."* **John Kenneth Galbraith** [Money: Whence it came, where it went](#) 1975

*"when perception is successful, we come to recognize immediately—that certain objects have certain properties...**when we fall prey to illusion or hallucination, the way things appear may differ radically from the way things actually are.**"* **Szabo & Hawthorne** [Perceptual Experience](#) 2009

*"microtubules inside our neurons, are structures like computers. They look like computers, they act like computers, and they may be quantum computers, in which the bits are the ones and zero can be in superposition on both. And that means, that if you're in a superposition where something's both here and there, it means the universe itself, at its most basic level is bifurcated into multiple worlds as each separation branches off to form a whole new universe"* **CONSCIOUSNESS- A conversation with Deepak Chopra and Stuart Hameroff** 2013

Oswaldo Lairet  
SYSTEMIC RISK AVERSE FUNDS

~~"Markets-CENTRAL BANKS CAN REMAIN IRRATIONAL PRINT MONEY LONGER THAN YOU CAN REMAIN SOLVENT"~~ **KEYNES-MARKETS** (SUMMARIZED AND EDITED FROM A [PRESENTATION](#) WRITTEN ON AUGUST 19, 2015)

Economics has been a subject of fascination throughout my life. Yet, only as I began teaching Finance in 1990 did, I realize the extent of its limitations. For instance, by modeling debt and money via static assumptions, Keynes chose to ignore the primary mechanism through which the time-value of money materializes future cash-flows into the existing economy. A choice that effectively allowed G-7 governments, financial intermediaries and other Preferred Economic Agents (PEAs), the privilege of issuing infinite amounts of "risk-free" debt over a century. This inconsistency lets PEAs indebt multiple generations of citizens and via preferred credit allocation, use the proceeds to purchase the future value of income-producing assets at a

**PRESENT VALUE** Due to uncertainty, a dollar in hand is more valuable than a dollar in the future. And since uncertainty depends on the amount of time and risk you take while you wait, it can be expressed as a percentage cost of those two variables and appropriately named **INTEREST RATE**. Finally, by subtracting the cost of uncertainty from any dollar you're expecting in the future, you can price what it is worth today. In short, you can express the Present Value of any income stream you expect from an investment by discounting the interest rate cost from each of the expected cash flows:  $PV = CASH\ FLOW / (1 + INTEREST\ RATE)^{NUMBER\ OF\ TIME\ PERIODS}$ .

price below the premium imposed by the time value of money. Here's another way of understanding Present Value. First, properly pricing the value of future cash flows requires that the opposite of the statement in the box, must be true:  $FV = CASH\ FLOW * (1 + INTEREST\ RATE)^{NUMBER\ OF\ TIME\ PERIODS}$ . Thus, unless there is zero uncertainty about the future (interest rates at or near zero), the Future Value of an expected income stream of cash flows must have a value larger than one. Yet, G-7 real policy rates have been below zero ([Graph 5](#)) for a decade.

**WHILE INVESTORS DEBATE INFLATION/DEFLATION THEORIES, FINANCIAL MARKETS SNATCH THEIR NPV, USING THE SIMPLEST OF ARTIFICES: NEGATIVE INTEREST RATES**

Neoclassical Economics has been providing organized sanctuary to undeniably irrational arguments, such as imposing that uncertainty about the future can go to zero or negative. Even worse, these absurd arguments were imposed in the name of Capitalism and Free Markets, by the same power elite that made [unlimited economic predation](#) possible by scaling global debt exponentially via the misallocation of credit, the mispricing of economic value and Never-Ending Rescuing of bankrupted PEAs. In fact, as G-7 nations (90% of global debt) dropped Real Interest Rates from 5% to 0%, they expanded Nonfinancial Debt by 1,000% since 1985 (from \$12.5 to \$125 trillion) as shown in [Graph 9](#) (slide 20) of this [April 11th, 2015 BIS presentation](#). And detailed in [The Fixed-Income "Mother of All Bubbles..."](#), last year: they have no choice, but to keep manipulating the price of uncertainty below zero and expanding global debt. Hence why it was not a surprise to see McKinsey's report a 17 percent increase in the global Debt to GDP leverage since 2007 ([Debt and \(not much\) deleveraging](#)) or to learn that \$25 trillion of the \$57 trillion increase came from new sovereign debt.

**A SIMPLE WAY FOR CENTRAL BANKS TO STOP COMPROMISING THE WORLD'S ECONOMY**

Though Keynes was [Not an Economist](#), but a mathematician, he included [NO explicit Mathematical Models In His General Theory](#). Thus, regardless of the multiple patch-ups performed by others, his theories have been exploited at pleasure since the 40s, by the same PEAs that imposed them after centralizing global gold reserves earlier in the 20th century. Yet, I am sure rational power brokers understand that, unless they introduce some changes, the sovereign debt bomb will eventually detonate against everyone's interest.

Among many changes that could be implemented, the most urgent one is to reconcile the zero-risk nature of sovereign debt versus reality. An easy-to-understand and execute manner of doing that is for central banks to stop offering the minimum market interest rate, exclusively to one economic agent. By including all other economic agents, this policy would allow nonfinancial markets to earn a premium over the minimum rate, as warranted by the non-zero risk nature of the private economic agents, currently taking their deposits. At the same time, the policy would force banks to refrain from endangering their solvency, so they can continue enjoying the privilege of taking deposits. Similarly, it would encourage the public to learn which banks carry healthy loan portfolios, before trusting them with their money. Better yet, it would allow them to migrate their deposits to central bank, should solvency risk begin to rise in the financial system. This result by itself, justifies the policy, since allowing deposits to freely migrate to real zero-risk safety would prevent central banks from having to issue inorganic money or force the sovereign to issue mountains of new debt to rescue bankrupted financial actors. In sum, establishing market justice would stop financial crises from recurring.