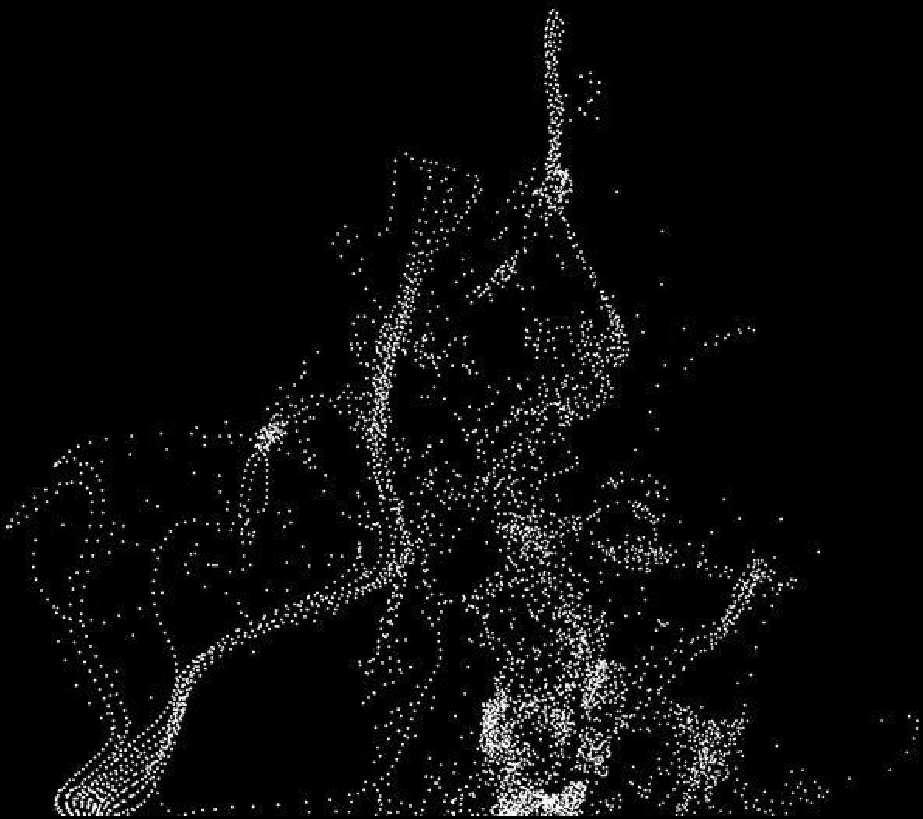

Debasement Strategy

the maximum energy dissipation risk-premia hypothesis

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Genesis

Energy, Economy, Money

An economy cannot function without a permanent flow of energy that passes through it. Adopting a thermodynamic view, an economy requires continuous energy inputs to maintain its internal operation and organization. **Growth is nothing but transformed energy. Money plays the role of a catalyst.**

But what is money? Simply put, money offers the most liquid asset within a trade network as it possesses the highest salability that measures the ease with which it can be sold on the market at any time with the least loss in price.

By construction and definition of the Proof-of-Work consensus itself, Bitcoin — which is a store of capital — is a **decentralized hard money** backed by energy. Because energy is the fundamental bedrock upon which all growth is built, therefore being long Bitcoin is being long internet economy and innovation. **It is owning a share of future internet-energy.**

Money — which a debt with a zero duration — transfers energy in space and time. Bitcoin is the best representation of energy and more efficient than Gold to represent an energetic debt, while its robust programmatic nature enables financial innovation.

Bitcoin dissipates energy more than Gold per unit of mass, that makes it a better representation of hard decentralized money.

Debasement Trade Primitive Blocks

Gold & Bitcoin

Bitcoin through its adoption process — as Gold did during a longer process — becomes a **new monetary Schelling point** which is, in Game Theory, a solution that players naturally converge upon in a coordination game absent communication, based on its salience or logical prominence.

During this new economic innovation cycle, Bitcoin, as a digital economy monetary Schelling point, begins to challenge Gold that maintains his status of real-world-asset monetary Schelling point. Since every form of money constitutes energetic debt, two asset classes emerge as its repositories: commodities with inherent utility — such as silver, platinum or copper — and commodities with negligible intrinsic worth, exemplified by gold, where merely 10% reflects industrial application while 90% represents a pure adoption momentum. This dichotomy unfolds between use-value-driven assets and exchange-value-driven assets. Nonetheless, economic history and social anthropology tell us that the latter are a better choice to define a **decentralized money** because the former remain vulnerable to technological disruptions arising from innovation cycles and evolving agent preferences.

An asset emerges as the optimal decentralized monetary Schelling point when it satisfies a tripartite criterion: irrefutable energy intensity in its production, high exchange-value, and use-value fortified against technological erosion.

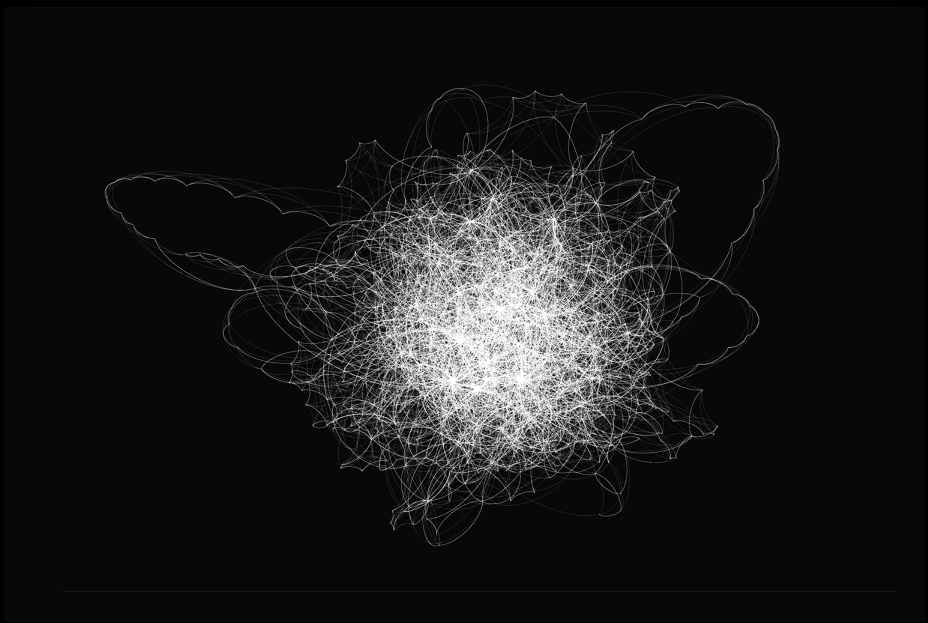
Thence, Bitcoin and Gold are the very two first macro assets to be deployed in a debasement trade portfolio.

Money & Entropy

Inspired by the principles of thermodynamics — particularly the concept of entropy — it can be argued that economic systems are akin **dissipative structures** that seek to maintain their internal order - characteristic of low entropy - by continuously dissipating energy, which tends to increase entropy in their external environment. Entropy here refers to disorder or the loss of usable energy and information. Accordingly, dissipative structures counteract this internally by organizing themselves, but at the cost of exporting disorder outward.

Centralized fast money plays a central role as a form of stored information or **negentropy** which is a form of negative entropy. It represents organized value that allows for coordination and exchange. Therefore, spending or circulating money is akin to dissipating energy as it tends to erase information and produces entropy, manifesting as heat. This dissipation is essential for maintaining the system's dynamism, but unchecked accumulation of wealth could lead to instability.

Consequently, economic systems that dissipate less energy tends to disappear.



Risk-Premia

Markowitz’s Lesson, Shannon’s view

In finance, risk premia are most generally defined as the extra expected return an investor requires as compensation for bearing risk instead of holding a risk-free payoff. More abstractly, they can also be viewed as the difference between statistical objective expectations of returns and preference weighted expectations that reflect investors’ risk aversion. Factor investing aims to harvest above-market returns from specific risk premia regardless of market conditions. Long-only risk premia strategies are known as smart beta and attempt to outperform the market by using alternative weighting schemes such as volatility weighting or factor tilts in the index construction process.

In the classical **Markowitz Modern portfolio Theory**, introduced in 1952, there is a **positive relationship** between volatility σ of a financial asset and its expected return μ. Risk-averse investors demand higher expected returns to compensate for bearing higher risk. The **Sharpe ratio** directly built on Markowitz’s mean-variance foundation formalizes the risk-return trade-off, as $SR = \mu/\sigma$ measures the excess return per unit of volatility (in an economy with zero risk-free rate).

From an information theory perspective, volatility as the standard deviation of returns, can be seen as a measure of the uncertainty embedded in the return process of a financial asset. Yet, the Information Theory pioneered by Shannon in 1948 provides a conceptual tool to quantify uncertainty in a stochastic price process. The most direct link is through **entropy** H which measures the average amount of information needed to describe the outcome of a random variable.

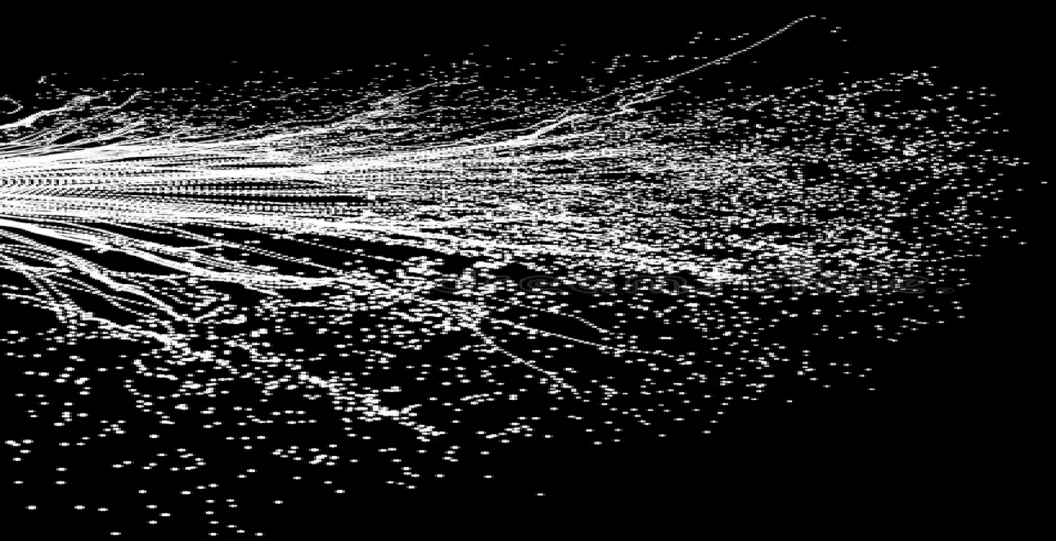
A better measure to assess excess return, is the Shannon Ratio μ/H that formalizes the return per unit of informational uncertainty.

Maximum Energy Dissipation
Risk-Premia Hypothesis

It has been argued that thriving economic systems are those that dissipate a lot of energy. Subsequently, and following a Shannon interpretation of Markowitz's mean-variance framework, it has been conjectured that expected asset return is somehow related to a form of entropy.

Thence, it is possible to connect expected return and dissipated energy (for a specific asset or at a macro level of an asset class itself) within a mean-entropy framework The following primordial risk-premia can be conjectured.

Maximum Energy Dissipation Risk-Premia: assets with the highest energy dissipation rates yield the greatest returns.



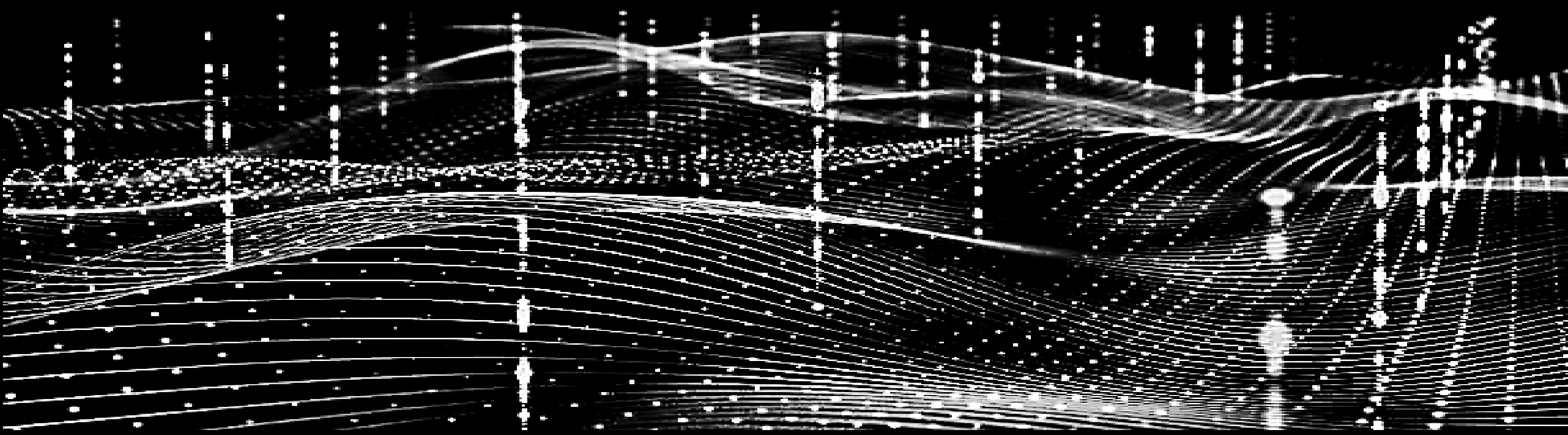
Debasement Strategy

Macro-Entropy

According to the Fisher’s Quantity Theory of Money, inflation is a monetary phenomenon. Prices of valuable scarce assets grow while the ‘purchasing power’ of fiat currency keeps declining. Money supply and credit cycle expansion tend to inflate asset prices.

The **Debasement Trade** is a strategic bet against the integrity of fiat currency. It aims to deploy capital in hard assets, commodities, and scarce resources. Quite naturally and mostly derived from a questioning about the nature of Bitcoin, energy, economy and money, the following radical portfolio construction arises.

Maximum Energy Dissipation Risk-Premia is the most natural framework to build a debasement trade portfolio that personifies the features of Bitcoin and Gold.



Debasement Strategy

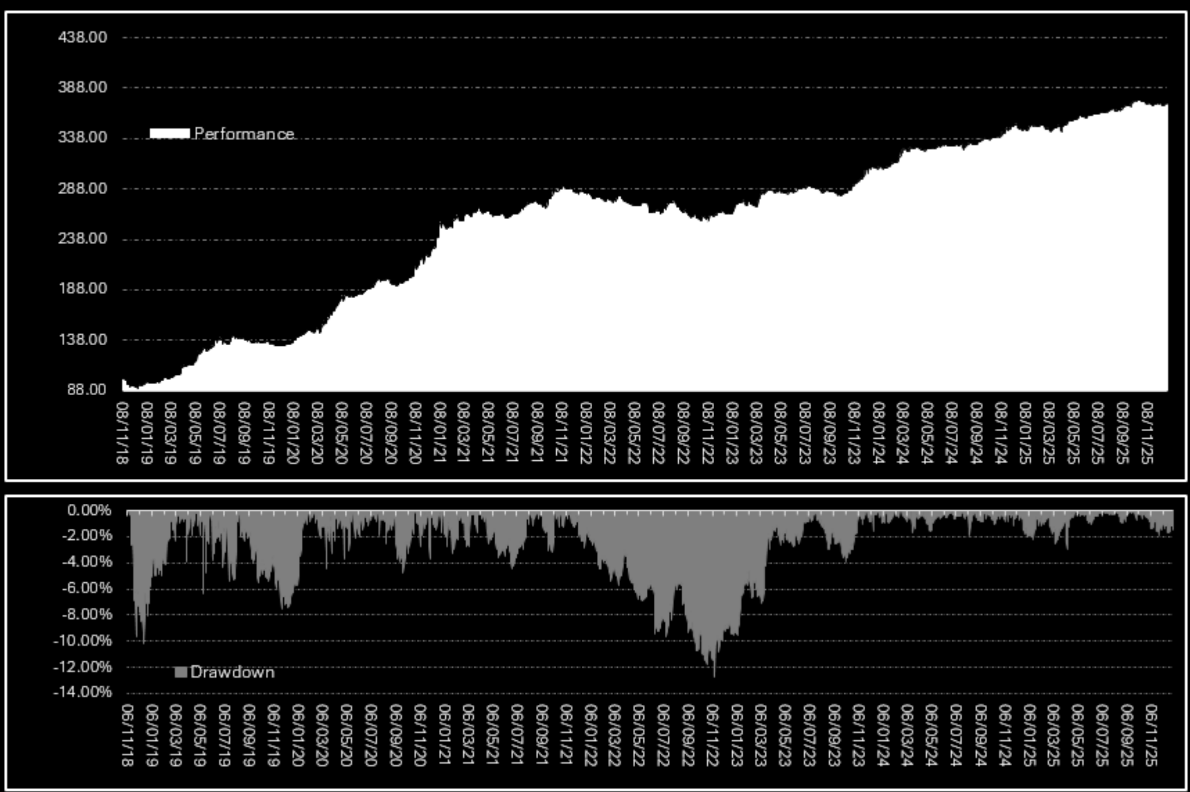
Portfolio Performance

To illustrate how this maximum energy dissipation risk-premia can be used to build a debasement trade, a dynamic long-only portfolio is deployed with Gold, Bitcoin and Equity following this investment logic.

The purpose of this simulation is to assess the profitability of this primordial risk-premia that aims to connect energy dissipation with expected returns. The portfolio allocation is simply derived from these re-scaled risk-premia across the asset classes.

Total Return	271.74%
APR	37.85%
Sharpe Ratio	1.83
Win/Loss	127.7%
Maximum Drawdown	-12.74%
Calmar Ratio	2.97

Performance Metrics, 8-Nov-2018, 31-Dec-2025



Historical Performance & Drawdown, 8-Nov-2018, 31-Dec-2025

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