

# On Markets of Thought

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## Abstract

**We need a proper market model free of rigid mathematics. The best we can do is a truthful approximation to reality that coarsely identifies key elements, reflecting freedom of human thought and behavior. We then consider modern problems.**

## 1 On Markets

In a market, we consider a collection of humans, each possessing a quantity of goods, services, or assets. What matters is human willingness to buy and sell, as measured in dollars. Physical quantity is related but not equal to willingness. An exchange is between two humans, the market aggregates all people, so we obtain the maximum willingness to buy and sell at that time of the public population, i.e. the best price. Human willingness to buy and sell is thought! Especially relevant is human nature, and human assessment of conditions, i.e. expectations.

This general definition allows for reflexivity. Are market expectation and reality independent? No, the assessors and assessee interact. Note the assessee can have both physical and financial components. Consider a company with bad leadership. A positive market expectation could help real affairs through a new stock or bond issuance, but likely will not, as executive incompetence weighs heavily. On a deeper level, a more precise definition of what it means to know is needed. Precisely what do we know and how well do we know it?

The US economy consists of many markets, with a common means of exchange, the dollar.

Money aka capital enables specialization. Humans drive the economy through the market reality interactional process. Markets reflect human thoughts, hence this process has somewhat self-defined direction, which we do not recognize. Instinctively our broad direction is growth. Global markets integrate international thoughts. Local markets can either benefit by or suffer to global extension.

Humans' thoughts prioritize survival, reproduction, and emotional behaviors. People instinctively and rightly prioritize individual interest, rendering economic communism ineffective. Instead, we harness competitive instinct through markets. Yet humans' markets reflect human thinking and mostly disregard broader effects: humanity vs nature, short vs long term, local vs global, etc. Completely letting markets loose is dangerous. The big picture needs some direction toward the planet's long-term benefit.

Here we consider some common market fallacies. "Efficient allocation of resources." No, prices are allocated according to human thought. "Capital flows toward highest return." No, capital flows towards whatever humans want. "Markets are efficient." No, markets are human. "A market gives you the best price."

No, a better price may be possible locally or privately. A "state price" encompasses all information. No, the price reflects people's thoughts, not the factual state of the world.

## 2 On Currencies

A currency is a medium for transactions in a country locale. The price is determined by aggregate willingness to buy and sell a local store of value of limited quantity. Currencies are issued by governments with value realized in paper vs metal. The main player is the central bank, e.g. the US Fed, but other banks and the business aggregate are also relevant in trade. Currency is easy to print, and hard to unprint, e.g. cancel value, reverse split, new tier. The Fed can adjust quantity outstanding through market operations, e.g. buy and sell bonds and foreign reserves.

Willingness to buy and sell currencies is physically related to international trade and domestic population, on which we base our model. The proportional contributions vary, with trade influencing the short term, and population the long. Common thoughts of participants are also relevant, yet when whims of thought fade, necessity of behavior remains. With respect to international trade, the price floats on flows of goods and currency. With respect to population, the price adjusts to domestic use, with the government controlling quantity, and ideally aiming for stable prices. For example, as population increases, more currency is needed to prevent a price level decrease. There is more need to buy and sell, hence more wealth in total. Yet increasing the quantity of currency does not necessarily imply a weaker currency relatively. All population growing countries have to increase quantity. And if one country increases quantity especially, the aggregate perception may be positive, so exchange rates remain constant with total wealth temporarily increasing.

The domestic price level reflects the willingness of the population to buy and sell in terms of goods a fixed amount of money. Willingness depends on confidence in money, being assured if paper is backed by real assets. The government sets a reasonable quantity of money, and attempts to influence thought toward a desired price level. If people do not spend, the government will. Price level being aggregate average thought, it cannot be rigidly controlled. A stable price level may be desirable, as increasing prices lead to human overactivity, and decreasing prices lead to underactivity or hoarding. A relentlessly rising price level necessitates relentless human activity. Seeking stability, the government can adjust currency amount to population. Over-printing money creates inflation, decaying both financial wealth and deficits, real assets excluded.

Dividing total wealth by total people equals average wealth per capita, which we compare between countries using currency exchange rates. A strong currency makes foreign goods cheaper domestically, and makes domestic exports more expensive internationally. A weak currency makes foreign goods more expensive domestically, and makes domestic exports cheaper internationally. Other factors equal, money flows to a weak currency country, and goods flow into a strong currency country. A weak currency stimulates production for export.

Consider a fixed exchange rate, the USD vs CNY low peg. Here US dollars flow to China, and Chinese goods flow the US. Normally these USD are sold and CNY are bought, weakening the USD, and strengthening the CNY. Yet the low peg means USD are absorbed by the China Central Bank, who buys USD and sells CNY, increasing the quantity of CNY. The China Central Bank buys TBonds with its USD. Money accrues to the central bank vs the users of currency, the people, to stimulate export growth.

Consider a hypotheticalal USD high peg vs

Foreigner currency FOR. Here USD flow to the Foreigner, and Foreign goods flow to the US. The Foreigner sells USD, buying FOR. Note this is not guaranteed, the Foreigner could buy US assets instead. The tendency is for the USD to weaken, and the FOR to strengthen. To maintain the peg, the Fed buys USD and sells FOR, which is funded by selling FOR bonds. The Fed has to pay in FOR, so an eventual massive devaluation is likely.

Floating exchange rates prevent concentration of wealth per capita, automatically distributing it to poorer countries in return for goods. Ubiquitous floating rates imply uniformity in long term global development. In this scenario, short term concentration of wealth per capita is only physically sustained through some local advantage, e.g. resources, innovation, protection. Floating rates imply a trade surplus or deficit is distributed over the entire currency. All are immediately responsible for the actions of a potential few. Fixed exchange rates imply accumulation of surplus or deficit to central banks, hence long term indirect concentration of wealth per capita. Surplus is not transferred into currency, where on average it is automatically spent. All arguments assume unrestricted exchange of currency and goods.

Consider local vs global geographic partitioning and currency. Assuming country partitions, a local currency allows local control of development. In a hypothetical global currency, a trade imbalance would imply a firm debt not adjusted for by currency. Here a country's debts must be responsibly paid, disincentivizing superfluous trade. If countries' borders are dissolved, only a global currency is possible. Forget local control of development and regional responsibility, and forget diverse cultural economic systems. Companies and smaller abstractions would accumulate surpluses and deficits instead of countries. Thus far their global behavior has been more advantageous than responsible.

Consider gold as a potential global currency.

Because of finite quantity, its price steadily increases with global population, and is volatile with global trade. This implies mild hoarding, with less trade and investment than with floating rates. A physical issue is gold endowment, and likewise endowment of real assets. Hence paper money is appropriate for helping poorer countries equalize wealth.

### 3 On Financial vs Real Assets

A financial asset's price reflects human willingness to buy and sell an abstraction. The abstraction may represent something physical, yet is removed from a direct correspondence. A real asset's price reflects human willingness to buy and sell something physical. Real assets are mirrors of each other in price. Why? Real assets' values are based on human physical necessity vs just willingness. Investing in financial assets is risky, as appraising an abstraction's value leaves more room for bubbles of thought in price with no supporting need. There is a danger that stock returns are largely nonreal. Bubbles in real assets with physical utility have price mean-reverting to the value of necessity. We have essentially defined value as reality: price is what you pay, value is what you get.

We reconsider gold as a real currency. Is it backed by human necessity? Exchange can be direct without a lubricating medium. To link a currency to human necessity, a basket of real assets is more representative. This is complicated, yet possible. Implicit to the value of paper currency is peaceful exchange. In wartime, only real asset value is guaranteed to persist through physical necessity. War can be physical or economic. We see the utility of a simple, persistent, and portable currency of physically limited quantity.

A fixed peg of gold weight per unit unit currency requires a lot of bullion to back in full. A partial reserve with fixed rate redemption

functions like a bank. And loosely maintaining some gold reserves is a hedge against complete disaster. If the government has excess gold, it can later decide to reflect its value in currency. Assuming reserves are constant, changing the gold content of a dollar changes the quantity of money. Gold and real assets can be utilized not just stored, but government ownership and country proximity must be maintained.

If a paper currency is based on gold, trade and population still affect its price. The price of a currency can go above the value of gold reserves, but not below. Per capita wealth still tends to equalize between countries if free flow of currency and goods is allowed, but cannot go below the value of physical gold reserves per capita. Persistent surplus or population growth needs to be proportionally reflected in gold reserves. The government would require the transfer of physical gold, this value not being allowed to accrue in paper alone. However, a persistent deficit need not necessarily be reflected in gold reserves, depending on whether trading partners also require periodic physical gold payment.

Gold slows down international trade, and makes transfer of wealth obvious. Real assets never persistently crash, and are always interchangeable, so the worst case is physical gold. Money would leave the US if expected return is greater than expected return on gold. This approximate hurdle is seemingly appropriate. Restraining paper with gold in reasonable proportion prevents an unstable bubble, reminiscent of bygone self-printed bank notes. What is the USD backed by now, effectively? Land. Barring a complete monetary collapse, the currency is backed by land. Foreign governments or entities owning excess property is precarious.

The Japanese Yen is in a state of long-term depreciation due to decreasing population and trade. Yet there is price deflation reflecting even lower willingness to buy and sell goods. If the Japanese Fed sells Yen, Japan cannot af-

ford necessary imports. If it buys bonds, injecting Yen into the economy, the domestic interest rate may turn negative. What can be done monetarily? Maybe split the Yen, or sprinkle Yen everywhere? A proposed physical solution is migrant workers. The underlying problem is that currency value is linked to human activity which is decreasing. Instead, link the Yen to gold or real assets. Lacking abundant domestic resources, Japan can produce technological value, and trade with it.

## 4 On Government Policy

As beliefs about markets are enforced through law, it is important to have clear understanding. A democratic state is like a market of opinion, where reality is law, and they interact. Here habits of factual and independent thought are optimal. Consider the collective abstraction vs individual. Aggregation and automation in pricing financial instruments may prevent accurate valuation. As markets interact with reality, this pricing gives us dubious direction. Aggregation in media can create bias of opinion, which unfiltered by truth, seeps into law. Aggregation in education can brainwash. There is an inherent aggregation of power in finance as our modern world runs on money.

Free trade equalizes wealth, advantageous trade concentrates wealth. Global free trade amounts to much meaningless activity for the sake of uniformity. It is the current US ideology and state of affairs. Deficits are decayed through inflation and refunded through equalizing currency devaluation. This is not a healthy mindset, relying on perpetual population growth and currency fairness to pay debts. In the long term, as population growth slows and trade settles down, individual stocks can rise in value appropriately, but aggregate stocks cannot. Perpetual aggregate growth is misguided, we want aggregate stability and some directed ends.

People have an innate right to pursue their self-interest and self-aggregate however they choose. Unaware, the choice is being made for them. Geography is a legitimate partition that has worked well in nature. Human instincts of physical and intellectual kinship are sound. A one world order is misguided, and involuntary commoditization of people is unnatural and inhuman. Yet we all share the same planet, and thus have to cooperate to some degree, e.g. on the environment and charity.

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