

The unbearable lightness of financial markets

by

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Financial markets have a long history of speculative bubbles and crashes. From the 1622 currency bubble of the Holy Roman Empire, the Tulip mania in 1637 and the South Sea Bubble of 1720, through the Railway mania in 1840s, the Poseidon Bubble in 1970s and the dot-com bubble in 2000 up to the recent real state bubble¹, financial markets seems not to find a safe and calm haven but to create the basis for a new storm as soon as the last one has settled. Surprisingly, despite the previous and the present overshooting and undershooting of financial markets, the strong belief that markets "are getting the prices right" is only rarely as fundamentally questioned as one could have expected in the light of the shocks?

The Efficient Market Hypothesis (EMH), supposedly the most widely accepted theory in economics over the last five decades, is still seen as the cornerstone of the whole neoclassical macroeconomic edifice. The EMH claims that, in an efficient market, the prices of traded assets (e.g., bonds, currencies, stocks, or property) reflect all available information, and instantly change to reflect new information. In this manner, the markets always gets the prices right and assets are always

traded at their "fair value". In this theory, financial markets, even more than goods markets, allocate resources in an efficient way and regulation is unnecessary.

In a different theoretical setting, however, the most important lesson of the recent global crisis is that financial markets hardly do "get the prices right". In this view, the information processing of financial markets results systematically in overshooting or undershooting and in misallocation of resources. As all market participants react in a more or less uniform manner to new information or "new shocks", the winding or unwinding of their exposure to risk takes place almost in unison

This has never been better demonstrated than by the current crisis, where financial markets for very different types of assets and in all major countries were hit almost simultaneously. As figure 1 shows, the financial shockwave submerged stock and bond markets in many countries, exchange rates of some emerging-market currencies and primary commodity markets all at the same time. The same strong correlation can be seen for the first quarter of 2009, with a nearly parallel increase among totally different assets that are traded on financial markets or on markets with a high degree of financialization. The extremely high correlation of the day-to-day price movements in so many different markets can only be explained by a common force like financial speculation, which moves all the prices in the same direction despite their different fundamentals.

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¹ Kindleberger has listed 42 bubbles in the history of economics.

Take, for example, the currency market. High inflation countries are the main target for short-term capital flows because they usually offer high interest rates. In doing so, "investors" can gain large profits by carrying money from countries with low interest rates to those with high interest rates. At a macro level, this "carry trade" causes an *appreciation* of the recipient country currency despite its fundamental need to depreciate to stabilize trade flows. The long lasting real appreciation of high yielding currencies is a clear signal of the ability of speculative flows to drive prices in the "wrong direction".

On commodity markets financial "investors" have been very active since the early 1990s as a strategy to diversifying portfolios through exposure to commodities as a new asset class. When their involvement took on new proportions in the aftermath of the dot-com crash in 2000 and started a meteoric rise in early 2005 prices were clearly distorted². The parallel development of commodity prices and financial investment on commodity futures markets is a first indicator for the role of large-scale speculative activities in distorting commodity prices (UNCTAD, TFR 2009).

Among economists, however, scepticism prevails with regard to the link between speculation and commodity price development and this scepticism is based on the efficient market hypothesis (EMH). EMH believers still sustain that if speculators were driving market prices above fundamental levels, consumer will demand less than producer are supplying. The result would be visible inventories of speculators. As the evidence on inventories is inconclusive the traditional view declines the role of speculation. However, reality may be more complex than this simple model.

² The number of futures and option contracts outstanding on commodity exchanges worldwide increased more than five-fold between 2002 and mid-2008.

Speculation in commodity prices: Spot prices and future expectations

First, there is no doubt that the most basic form of speculation, hedging, can play a useful role in markets with volatile prices:

Thales was a poor philosopher from Miletus who forecasted the olive harvest would be exceptionally good the next autumn. Confident in his prediction, he made agreements with local olive-press owners to deposit his money with them to guarantee him exclusive use of their olive presses when the harvest was ready. Thales successfully negotiated low prices because the harvest was in the future and no one knew whether the harvest would be plentiful or poor and because the olive-press owners were willing to hedge against the possibility of a poor yield. When the harvest-time came, he let them out at any rate he pleased, and made a large quantity of money.

A futures contract of this kind is a standardized contract to buy or sell a specified asset at a certain date in the future, at a pre-determined price. In agricultural markets, risk averse farmers may sell their future harvest through such a contract in order to be sure about the price and avoid bad surprises at the time of the harvest. The farmer may indeed accept what seems to be a rather low price to hedge the risk of a much lower price later. In this sense, *Thalesian futures market* are driven by a reasonable kind of speculation, where a more risk adverse person is hedging its risk with a person that it is less risk adverse.

What happens when futures contracts are traded in purely financial markets without producers of the commodities being involved? Trading a futures contract of commodities, like trading stocks or currencies, implies the anticipation of the future price of the traded asset. The farmer after having planted its crop may have an idea of the future supply, its quality and the local demand for such a quality that allows him to estimate roughly the present value of his coming

harvest. However, in a truly global market and long before the food stuff is planted, for example olives for the harvest in 2010, no one has a clear idea about the outcome in terms of the final price.

The main difference between the *thalesian futures market* and the financial futures markets nowadays is the impossibility of an acquisition of reliable information in the latter about prices in the future. In fact, pricing in financial futures markets is no longer based on some knowledge of the concrete supply and demand but it is based on "more sophisticated" techniques and procedures. But even with these techniques like deep digging analysis of supply and scientific studies of future demand (like "The Chinese or Indian demand for oil or food") the information is not more accurate; the state of objective uncertainty prevails. But another nexus may come into play: As the futures market normally is a highly active, very visible and centralized market, the farmer and the hedger may prefer to set their price according to the futures "markets view" instead of relying on their own judgment (especially when the forward price in that market is higher than the one the farmer had expected). Then the futures markets becomes a vital source for information about spot prices and may indeed force both, the producer and the hedger, to adjust accordingly.

It is exactly in this way in which information, unrelated to the fundamentals of the concrete market drives many different financial prices into the same direction over remarkably long time spans. The rumor about a recovery of the global economy is more important than any "fundamental" in driving the prices up or down. Then the futures markets dominate the price formation in the spot markets and not the other way around, as traditional theory suggests. Remains the question about final demand: what will consumers do to protect against the volatility of the financially determined prices? The simple an-

swer is that in most cases they have no choice. They continue to satisfy their needs irrespective of the price and take the implied overall income effect that is implied by the price moves as good or bad luck respectively.

Overall, financial markets are not comparable to the ideal atomistic market of economics textbooks. In an atomistic market, each seller's and buyers size is too small relative to the market as a whole to influence prices. Moreover, each seller and each buyer in the ideal market comes with an independent set of information concerning his or her individual supply and demand. In financial markets, the uniformity of the available information provokes herding and highly-correlated movements in and across markets with the power of influencing the futures market and the future spot prices of all traded assets.

Herd behaviour and the irrelevance of fundamentals

The EMH claim that relevant new information induces the economic agents to update their expectations appropriately doesn't solve the general information problem. Which kind of information is driving the expectations of market participants? Are expectations driven by individual needs, by individual preferences, or by individual strategic targets of companies? Obviously, none of them is relevant. Fundamentals like these are not important anymore in modern financial markets. The market participants in a financial market are much more concerned with guessing how certain "news" will influence the behaviour of other financial market participants and consequently with betting on an outcome that can be expected if many participants' expectations are influenced by the same piece of information.

Keynes introduced in 1936 the example that investment strategies in such markets resemble a beauty contest; where guessing the result is mainly driven by trying to second guess which the prettiest

woman for other observers is, instead of judging the true beauty of the ladies. In the same way, the “fundamental” value of a particular asset is less relevant for the guessing market participant than his expectations about the judgment of the other speculators. This phenomenon systematically encourages the emergence of price bubbles if the herds influenced by certain bits of information are large enough. If this is the case financial markets systematically “get the prices wrong” since betting on ever-rising prices appears to be a rather risk-free and high-return business for an extended period of time.

As long as the “madness of the crowds” prevails, the individual judgement on the fair value of an asset is useless. In this sense, financial markets have a lot in common with the historical Spanish tradition of *encierros* (running with the bulls): since you have to run in the same direction, the best strategy is to be far ahead and out in front of the bull and exit in the right moment. And this is exactly what each speculator tries to do: to move first because only moving first guarantees the biggest gains. But in doing so, “the unbearable lightness of financial markets” leads the whole economic system into an unsustainable situation. If farming were to be organized like the stock market, a farmer would sell his farm in the morning when it rains, only to buy it back in the afternoon when the sun comes out.³

In reality, the future equilibrium price is absolutely unknown. Financial investors even ignoring available information about fundamentals can guess the right price. Relying on what other market participants may believe and/or the prediction about others views on the average value of a share, a commodity or a currency is sufficient for temporary success. In such a framework, speculation destabilizes, instead of stabilizing, the prices of the targeted assets.

Policy conclusions

The events of recent months have revealed a huge misallocation of resources and a destruction of enormous values driven by financial markets. The policy lesson is simple: macroeconomic prices are too important to be left to the vagaries of these markets. However, if the failure has shattered the naïve belief that unfettered financial liberalisation and deliberate non-intervention of governments will not only maximize the benefit of some players but also the social benefit, the crisis offers an opportunity for a new start. Governments, supervisory bodies and international institutions have a vital role to play to allow the society at large to reap the potential benefits of a system of decentralized decision makers. Only consistent and forceful interventions by institutions with knowledge about systemic risk can transform a system of markets for goods, for services and finance into a functioning entity. The neoliberal *laissez faire* of the last twenty years has dramatically failed its final test.

Interventions in financial markets that are part of the global economy ask for cooperation and coordination of national institutions and for specialized institutions with a multilateral mandate to supervise national action. In midst of the crisis this is even more important than in normal times. The tendency of many governments to grant to financial markets the role of referee or judge over the success of policy adjustments has to be rejected energetically. For example, it is indispensable to stabilize exchange rates by direct and coordinated government intervention instead of letting the market find the bottom line and trying to “convince” financial markets about the credibility of the government of the depreciating currency through pro-cyclical policies like public expenditure cuts or interest rate hikes.

In the same vain, the problem of newly issued government bonds at “penalty” rates that are demanded by the “markets”

³ Keynes quote attributed by Hutton (2008).

can be tackled. The paradox that the same market participants that have driven governments of many countries into a disastrous budgetary and current account situation ask for “risk premia” because they do not trust these governments any more and fear government default, has to be answered by the global community of governments in a strong and dedicated manner. Very rarely only the governments of the negatively affected countries are to be blamed alone for failure and governments of the unaffected countries very rarely are without any guilt. Hence, global solidarity and not a blame game is the imperative of the day. As Keynes once put it: “In the great events of man’s history, in the unwinding of the complex fates of nations, justice is not so simple.”

A global answer should follow the same principle: If everybody defaults nobody defaults. Only if some countries try to avail themselves of the opportunity to get cheaper credit at the expense of others, the “markets” have a choice and can demand a “risk premium” from the more vulnerable ones. If every country and every government acknowledges that the global crisis is foremost a systemic crisis, i. e., due to the failure of the global community to govern the globalized economy properly, the solution of a global bond that can be used by all countries at fixed exchange rates is less utopian than it sounds.

In the same spirit of cooperation all different sorts of speculative activities that have been responsible for the distortion in national and international price relations have to be tackled at the same time to avoid speculative arbitrage. The tragedy of the modern forms of speculation is their very short half-value period: the more people on the globe concentrate on the speculation in certain markets and the more effective they are, the quicker the results will be contradicted by economic reality because the real economic system can no longer bear the burden of largely distorted prices and exchange rates.

A coherent and effective approach can only be found at the international level and with the inclusion of as many countries as possible. A broad international agreement about the distortive effects of large scale speculation in different areas on trade and investment is absolutely crucial to create the framework for a globalization that has the potential to deliver rising living standards for all. However, the effects of the improvement in terms of material wealth have to be mitigated by a strategy to minimize the cost of higher living standards for the natural environment and the global climate to be sustainable.

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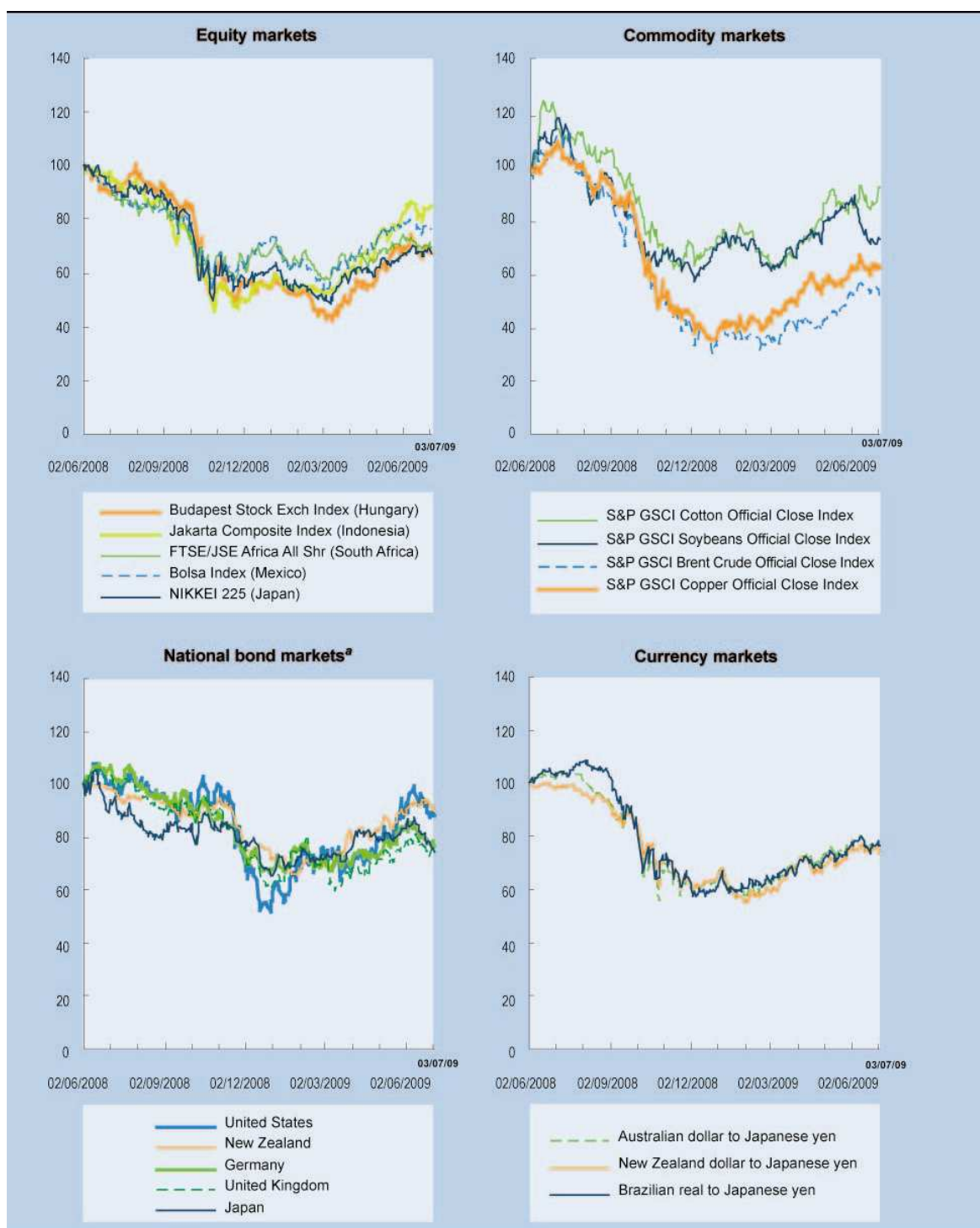
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Source: UNCTAD secretariat calculations, based on Bloomberg.
 a Yields on 10-year bonds.