Viewpoints on Finance Culture (4)

The Zero-Sum Game in Finance

I am sure readers are familiar with the general characteristics of a zero-sum game, in which the winnings of players are always matched by the losses of other players, and have come across and played in a variety of them. The rational justification for playing in a zero-sum game, particularly one involving a wager, is obviously the possession of superior **skills** perceived by players, enabling them, they think, to win more often than to lose. These may be skills in, for example, accurately detecting emerging trends in the outcome of the game being played, designing superior proprietary game strategies and executing them, understanding the strategies of other players in the game, etc. Much effort goes into developing winning strategies. There is an abundance of historical and academic literature written on them. Game theory is a popular field in academic study. Many have heard of the masterpiece of Chinese literature called "The Art of War" and the famous saying therein that has been translated as "to know one's own strength and the enemy's is the sure way to victory".

There are, of course, zero-sum games in which skills play little or no part, and **luck** largely or wholly determines the outcome. The lottery game is a good and simple example, although given the operating costs, tax, and commissions involved, it really is a negative-sum game with a less than fair payout rate relative to the probability of winning, whether one is talking about playing the game as a one-off event or doing so as a long-term venture. Many, however, still play enthusiastically, given that lotteries are usually run for charity purposes and that the return, in percentage or absolute terms, for the lucky winners is so astronomical that winning would make a big difference in life. Most can, in any case, afford to lose their small wager. And luck does play a role in life for at least those of us ordinary humans who are not always totally rational. Perhaps the hope and excitement are already worth it.

Then there is the third, rather more controversial winning factor concerning the possession and use of **inside information**, which make the game an unfair one for those without it. But it is often difficult to identify, prove beyond doubt, and impose sanctions against such unfair act. Distinguishing this clearly from the legitimate use of skills is already quite hard. There may not even be a referee to ensure fairness; or, when there is one, he may not have the teeth to perform his duty properly. As a result, in certain zero-sum games, often there is regrettably a degree of extortion by insiders, forbearance by or ineffectiveness of the referees, if any, and passive acceptance by the generality of gullible players.

The fourth winning factor, which is outright unfair and thus unacceptable, is **manipulation**. When winning a game involves substantial monetary gain, there will always be temptation for certain players to try and manipulate it to their advantage, typically making use of whatever privileged power or influence, or inside information, they possess. The sentiment described in the Chinese saying that "in war nothing is too deceitful" prevails, sometimes blatantly, particularly when not under the watchful eyes of effective referees. Whether we like it or not, manipulative behavior exists in varying degrees, depending on the characteristics of the game, the players, and the referees.

There are many zero-sum games in finance. They take the form of financial markets that provide platforms for the transaction of risk assets—a process, to untiringly remind all concerned, essential for providing the liquidity necessary for the effective mobilization of money from those who have it to those in need of it. With this important purpose in mind, I would like to share with readers eight points of view that I think have been much neglected or taken for granted by stakeholders of the financial system, as a result shaping a financial culture that is problematic and detrimental to the public interest.

First, there is simply a general lack of respect, if not lack of awareness, of the purpose of existence of the zero-sum games of finance. As mentioned before,

effectively to achieve the important purpose in the mobilization of money, financial markets perform two functions. They are the promotion of efficient price discovery and the provision of liquidity. Whether or not financial markets are performing these functions well is a matter of priority importance in public policies concerning finance. But in practice this does not seem to be the case, and the public interest is often overshadowed by the private interests of the many entities involved in seeking financial benefits from the game, whether as market makers or as investors. I will come back to this conflict of interests in greater detail later, but it is clear I hope that, however the games are to be structured and played, the important functions justifying the existence of financial markets should not be allowed to be compromised.

Second, there simply is too much tolerance or acceptance of manipulative behavior. Efficient price discovery requires market participants to behave as price takers. Yet in financial markets, it seems to have become an acceptable practice for market participants to engage in strategies to attempt to move market prices in their favor, choosing, for example, to concentrate activities when the market is thin instead of quietly building or offloading their market positions at the best prices available. One often notices high-profile comments by influential market participants or much publicized research work, cleverly made for the apparent purpose of identifying market trends for the benefit of general investors, when in effect the true aim, which regrettably is hard to verify, is creating such trends as part of their game strategies. These questionable practices seem to be accepted by retail investors, who are keen to ride along as part of their own game strategies. If one tunes in to the abundance of radio channels in Hong Kong broadcasting stock market activity, the commentators, some of whom have achieved star status, freely talk about the choice stocks of the day, sighting the activity of certain big players in pushing prices of those stocks higher or lower, as if this is a daily routine. Perhaps it is, but this is market manipulation. However, nobody seems to be bothered, not even the losers in these zero-sum games. Such is the sentiment in financial markets nowadays.

Third, price volatility in financial markets is a reflection of inefficiency of the market in the important function of price discovery, yet it is welcomed by players,

particularly the market makers. Take the example of the foreign exchange market as a simple zero-sum game in finance, where exchange rate gains and losses of the totality of players sum to zero. The purpose of having such a market is of course to facilitate international payments between economic entities in different jurisdictions in settlement of such international transactions as external trade and foreign direct or portfolio investments. The foreign exchange market is also able to discover indicative prices (exchange rates) in the future and provide liquidity to enable economic entities to lock-in or hedge against uncertain exchange rate developments. It has, however, turned out to be a rather volatile market, with exchange rates fluctuating widely, particularly in the eyes of, for example, industries exporting manufactured products or importing consumption goods or production materials, where profit margins pale into significance when compared with the impact of exchange rate volatility. Arguably, therefore, the performance of the essential price discovery function by the foreign exchange market has been rather inefficient. Yet it is precisely the high volatility that has attracted many players wishing to make a fortune by playing that zero-sum game with the help of highly leveraged finance and very complex derivative products, which themselves in reality contribute to exacerbating rather than dampening (as designers claimed) volatility. Typically, there are international players able to mobilize large amounts of international capital to the extent of overwhelming the market and dictating short-term trends in exchange rates that cause financial meltdowns of the targeted jurisdictions. The general question must then be asked as to whether the relevant rules of the game in certain financial markets are appropriate in terms of serving the public interest. Specifically on the foreign exchange market, having regard to the specific circumstances of particular jurisdictions, the question to be asked is whether free convertibility should, dogmatically, be considered as the desirable (to whom?) norm.

Fourth, complexity does not alter the nature of the zero-sum game of finance. Admittedly, the simple sum of the game in financial markets may not always be zero. Instead, it would be the overall rate of return of the risk assets concerned, for example, for shares listed on a stock exchange, the prices of which may go up or

down, and dividends may be paid. Similarly, interest is paid for debt issued and traded in the debt market, and the yield of the debt varies in accordance with changes and the outlook of interest rates as a monetary policy tool and with changes in the perceived creditworthiness of the issuer of the debt. In other words, in financial market jargon, the market "beta" may be positive, zero, or negative. But the relevant points here are, of course, whether a player is able to "beat the market" and achieve a better overall rate of return, in other words, a positive "alpha"; and, importantly, the realization that the sum of alphas must be zero. For the generality of players in financial markets, the outcome invariably is one of conceding some beta in failed attempts to go for positive alphas, particularly for those who make use of derivatives and other complex financial arrangements. It is important to realize that these expert financial services have to be paid for, in one form or another, by users. There are of course situations where access to certain financial markets or products with attractive betas, such as private equity, is open to retail investors only through schemes organized by experts. Investors participating in them should realize that in doing so they will, when everything has been taken into account, be accepting a negative alpha. If the beta plus a negative alpha in these restricted schemes is still higher than the beta that they could otherwise achieve on their own in financial markets more directly open to them, so be it, but they are still the losers in the zero-sum game. And when their expert advisors make a recommendation to them, for whatever purposes, to go "long downside gamma" and/or "short deep vega" in whatever financial markets, investors should be extremely careful. Cutting edge finance invariably results in limbs or even heads of players being cut off!

Fifth, there are no sustainable winning strategies in the zero-sum game of financial markets. Ingenuity of the human brain should not, of course, be underestimated. There are always those who are able to design winning strategies in playing with financial markets, legitimately making use of advanced information technology, going for complexity, operating with high leverage, etc. One hears of such strategies as algorithmic trading or high-frequency trading, and the now rather common long/short and call/put plays designed to take advantage of different

anticipated market movements available even at the retail level. But it is precisely such ingenuity that winning strategies would quickly be replicated, counteracted, neutralized, or upended. The huge monetary benefits of winning are always a strong incentive for doing so. In the competitive environment of modern-day finance, winning strategies in the zero-sum game of finance is not sustainable. There is only the temporary, first-mover advantage. This hopefully is food for thought for the skill-based players!

Sixth, insiders, widely defined, should not be allowed to play at all. The upholding of market integrity is a necessary condition for the efficient functioning of financial markets. Those with undisclosed price sensitive information should obviously not be allowed to trade, and this is already well provided for in financial market regulations. More controversial is whether or not those with privileged (or captive) access to financial markets and therefore in a better position than others (given the privileged availability of information on client activities) in predicting market trends should be classified as insiders and be banned from trading for their own accounts and restricted to trading only for clients. Here the argument for effective market-making that best serves clients is often used as justification for the taking of (what in effect are proprietary) market positions. This market-making argument goes even further to justify pre-positioning when client orders are forthcoming, whether or not they are confirmed orders, getting dangerously close to front-running. The problem here is that, in today's financial culture, the motivation is often not one of better serving the client but one of taking the opportunity to make greater profits and, for the traders concerned, to earn larger bonuses, although proving motivation is very difficult.

Seventh, financial intermediaries, whether or not they are in possession of inside information, should not be allowed to play in financial zero-sum games with money entrusted to them, for example, that of depositors, unless they are specifically mandated by clients to do so. The role of financial intermediaries in the transformation of risks is well understood, and so their holding of risk assets of

appropriate liquidity promising a beta higher than the deposit interest rates they offer (thus a positive net interest margin to meet operating costs plus some profit) is well accepted. But getting involved in playing games with a view to extracting positive alphas, whether or not there is an underlying position, knowing that the sum of alphas must be zero, is a different matter. Skill-based trading strategies are unsustainable, and reliance on luck should never be a consideration.

Eighth, from the point of view of ensuring that financial markets function in a manner that promotes the public interest, the efforts of the relevant financial authorities seem lacking in effectiveness. There is a wide range of issues: from the need clearly to accept responsibility for ensuring that finance serves the economy and financial markets perform the functions justifying their existence, to make sure that financial intermediaries are mandated to perform the role in the mobilization of money in the economy and behave accordingly, and to provide a financial infrastructure that best serves the public interest and does not condone inefficient practices (in, for example, payment and settlement arrangements) that serve the private interests of financial intermediaries. Frankly, perhaps for political reasons, the hands of the financial authorities seem overly restrained, through restrictive legal mandates or by the overpowering hands of interested parties in waving the free market banner. All concerned should accept that the game is there for a purpose that is much more important than promoting the pleasure or the livelihood of the players or facilitators of the game. Market freedom should not be abused or used as an excuse for inaction by those with responsibility to protect and promote the public interest.

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