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Financial Sector Dysfunctionalit

Is society well served by its financial institutions?

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Posing the Question

Is society well-served by its financial institutions? I am referring here to private sector institutions such as the banks, investment banks, fund managers, and capital markets generally, rather than the public sector bodies such as central banks and supra-national agencies. Surprisingly, the question is hardly ever posed, let alone attempts made to answer it. There seems to be a tacit, and more or less universal assumption that competitive markets are efficient markets and, since competition does not appear in short supply among financial institutions and investors, everyone seems to be happy.

Indeed the notion of efficiency lies at the core of finance theory. The belief in the efficacy of competition propounded by the classical economists from before Adam Smith, was applied formally to finance in the shape of the 'Efficient Market Hypothesis' in the 1960s. The ability of equity markets to deliver efficient pricing leading to the most productive allocation of resources was unquestioned through the 1980s and even now holds centre stage as the principal building block of academic finance. In the last decade or so the behaviouralist school has advanced some qualifications to the pure notion of efficient pricing, but these do not even begin to challenge the social efficiency of capital markets. And throughout, there has been faith in the forces of competition to drive away the super-normal profits of all players, including banks and investors.

But the reality seems at odds with received wisdom and the predictions of economic theory. By most measures finance has become the dominant industry sector accounting, for example, for between 30% and 40% of the aggregate profits of the quoted corporate sector in the US, UK and globally, compared with only around 10% forty years ago. What model can explain its dominance? It seems strange that an industry whose role is that of intermediation rather than the production of consumption goods and services should command such a high share of capital, profits and brains. Is it a coincidence that the industry whose role it is to allocate resources, retains the biggest share for itself?

This is the formal statement of the problem. Let me now briefly recount my personal journey of discovery and offer some explanations and possible solutions to the problem. I will speak mainly about stock markets because that is what I know best and because they are so influential and transparent.

I hasten to add that I am not a Trotskyite as one French colleague hopefully suggested. Rather, I see myself as an engineer viewing the financial sector as a vast machine. It seems overly complex, misspecified, with parts seemingly in conflict with other parts, it drinks fuel, needs vast numbers of highly paid operators and occasionally blows up.

How the Idea Developed

My own fascination with the competitive state of equity markets began in 1966 when coming across a little gem of a book entitled *Higgledy Piggledy Growth Again* by an Oxford economist. This was one of the first attempts to document the random walk of corporate earnings and prices and to begin to draw out the implications. The book caused me to change the direction of my career. On leaving school, I had gone into a stockbroking firm working as one of the early equity analysts. The implication of randomness, that all publicly available information was immediately captured in share prices, left me convinced that the only way to add value for the firm's clients was to have access to insider information. Although the use of insider information was not then illegal, it seemed to be a dubious way of making a living. So I left the City to go to university to read economics and then to lecture, with conviction, about the efficiency of capital markets.

Some years later I found myself working at the IMF in Washington as a mainstream economist. Because of my background in investment I was put on the committee of the IMF pension fund and it was through this that I encountered a fund management firm that was one of the first to adopt a quantitative model-based approach to investing. It was this experience, first as a client of the firm, then subsequently as a partner running the London office that made me change my views about the efficiency of stock prices. I came to realise that there were systematic mispricings that could be exploited by a rigorous strategy.

A decade or so later my partners and I had begun to believe that the pricing process was becoming more efficient. Data sources were more reliable, trading costs were falling and the quality of competition seemed to be rising with fund managers using more sophisticated techniques for investing. How wrong we were. The technology bubble of 2000 was a nightmare for any valuation-based investor. The bubble drove telecom, media and technology shares through the roof. At its peak these sectors accounted for 40% of total stock market capitalisation compared with less than 20% before the bubble. Valuations were grotesquely inflated and there was also a flood of new issues at exorbitant levels.

Fund managers with any sort of valuation model should have steered clear of the sector but few did. Unlike most, my firm stayed heavily underweight and underperformed the index savagely in 1999 and the first quarter of 2000, the high point of the bubble. We lost something like 40% of our assets from client withdrawals. Peer pressure, loss of nerve, short-termism -- call it what you want -- contributed to the actions of pension fund trustees and others who pulled money away from us even though they may have privately shared our assessments. The corollary is that over the six years following the bursting of the bubble, value managers stormed ahead in the performance stakes -- indeed to the point where low price-to-book and low p/e stocks are now dear as a class. Such is the power of investor expectations, self-delusion and herding.

The bubble had the effect of throwing into dramatic relief many of the issues and pressures that exist in capital markets. It resembled a laboratory experiment where all the interrelationships were magnified to an unusual degree. The experience led me to transfer my interest from exploiting the mispricings as a fund manager, to seeking to understand their causes. It got me back to my obsession with the efficiency of financial markets, but this time on a broader front.

Momentum

One of the prime suspects seemed to be the role of momentum. My firm had survived the bubble by recognising the need to have a momentum stream run alongside its valuation model. Irrespective of how good our valuation techniques might be, we realised it was essential not to ignore the ebbs and flows of investor sentiment in the short run. Something Keynes had warned about in Chapter 12 of the *General Theory*.

The best way to do this is to employ a momentum strategy. Six month momentum -- simply buying the 10% of stocks that have risen most in the preceding six months -- takes advantage of the trending observable in stock prices. It has a lower long-run return than a contrarian value model, but also lower risk in relation to the benchmark index. Momentum can actually have a higher information ratio (that is the expected return divided by the probability of achieving it) and is a good way to keep tracking error (or level of risk) within the guideline levels typically set by the clients -- as well as helping the fund manager survive commercially. Without it, my firm would have been dead right, but probably dead.

Momentum trading is hugely pervasive in stock markets. It is adopted to reduce tracking error, to minimise losses as with portfolio insurance, or it may be a necessary response by a leveraged investor forced to sell as the value of his collateral falls. A stop-loss order is equivalent to a momentum trade. Momentum can also be the most effective tool to add value for a short term investor acting on his own or in tacit collusion with others. There is also the momentum impact of manager selection, based on short term performance; those with falling returns are fired and the recently successful hired. The hard fact is that the majority of trades in the stock market are unrelated to the underlying value of companies.

Herding magnifies the trending in prices. A manager adopting a combination of value and momentum will be contributing to the distortion in process with one part of his strategy and exploiting mispricing with the other. If this is representative of the entire market, prices are constantly subject to the competing forces of distortion and correction. Every participant is pursuing rational strategies to give each of them the best risk/return outcome but, collectively, the outcome may often be for mispricing and the misallocation of resources, as well as high levels of expenditure on asset management services. I characterize this as the paradox of private gain, public cost (it pays everybody individually to do it, but collectively we all suffer in consequence). Or in the jargon of economics, the outcome is socially inefficient.

Academics have never quite come to terms with why it is that investors do not step in to correct mispriced stock, sectors or markets. Practitioners, however, are constrained by the pressures of leverage, finite budgets, tracking error, risk control, short-termism etc that often cause them to observe other priorities. In recent years, there has been more interest in these limits to arbitrage, as well as in the so-called agency problem -- the mismatch of self interest between client and fund manager. But there is still a lot more to be discovered in this area.

Hedge Funds

The agency structure and contract arrangements in asset management can have a big influence on the way prices are set. The growth of hedge funds is a case in point. Hedge funds represent only around 2% of the funds allocated to equity investment but they punch well above their weight in determining prices. The bulk of equity assets have always been managed in fully-invested portfolios with performance measured in relation to the benchmark index and with guidelines that preclude short sales, leverage and high risk. This seemed fine to investors when the equity indices were moving strongly ahead in the 1980s and 1990s. It seemed less appealing in the equity declines following the bursting of the bubble.

Hence the initial stimulus to the emergence of market-neutral hedge funds for which the guidelines were quite different. Their performance is measured against cash, they have unrestricted freedom to leverage, sell stocks short and enjoy opaque reporting. They trade frenetically and now account for 30-50% of the value of all daily share trades in the various national markets. The prices set in this polarised structure of unconstrained hedge-funds and tightly restricted long-only funds are likely to be different from those arising under the traditional structure.

In my experience, the high, performance-related fees charged by hedge funds make their investors and managers impatient for quick results. This impatience is likely to encourage hedge funds into short-term momentum-based strategies, which the evidence of the high turnover in their portfolios rather supports. The outcome could well be for an increase in the trending pattern of stock prices.

Hedge funds, individually and collectively, also seem to use their freedom to engage in more predatory behaviour than their long-only counterparts by seeking to force outcomes in corporate deals and to attack weak companies, as in the Northern Rock affair. The fate of Northern Rock, the failing British mortgage bank, lies with hedge funds who made a billion pounds going short of the stock, ironically financed by other banks and having borrowed half Northern Rocks' stock from its beneficial owners, the pension funds. One thing is certain, hedge funds in many instances have become the price-determining marginal investors but it is open to doubt whether markets have become more or less efficient as a result.

The Burden of Fees

I mentioned fees just now. Whether or not the scale and structure of the fund management industry is delivering efficient prices, the costs it imposes on end-investors is daunting. As a rough estimate, the costs of managing and trading the \$40 trillion of global equity capitalisation is around \$500 billion annually. Put this into the context of a set of pension funds with liabilities 25 years into the future. Active management of their assets, with its accustomed turnover of 100% per annum, will involve pension funds exchanging holdings with other pension funds for no net gain in value but at a cost in terms of management fees and brokerage that reduces the end value of the fund by a quarter compared with the alternative of a passive index-tracking strategy.

There is no sign that competition is eroding the profits of the fund management industry. Rather, the scale of the industry is growing by leaps and bounds. What do I mean by scale?

The investment business is not like other industries where there is a finite production of, say, shoes or toothpaste. With the advent of derivatives in various forms, there can be as many tiers of active management as the ingenuity of managers can devise. You don't need to hold underlying stock if you can transact in futures or contracts for differences. Ten or fifteen years ago, most equity portfolios were conservatively managed, long-only funds with modest turnover. Passive investing was also on the rise. Now, with hedge funds, overlay funds, proprietary trading by the investment banks, and higher turnover everywhere, the scale of activity has risen sharply. As a result, fees are now charged on a gross asset base that far exceeds the amount of stock in issue.

The end-investors see a mis-priced market, hire managers to exploit the mispricings but end up giving them guidelines that encourage or require the manager to engage in strategies that perpetuate the mispricing.

The game is also being played at a more sophisticated level. Managers employ a more complex range of investment strategies. Skill levels are higher and there are plenty of talented mathematicians, physicists and machines joining in to show their mettle. The stakes and costs are rising but the outcome remains the same as it ever was: one investor's gain is another's loss; that is, a zero sum game.

In recent years private equity has also entered the fray, bidding companies away from the stock market, repackaging, then reselling them back to investors. They extract their fees and winnings thereby lessening the potential return on the publicly-quoted equity indices.

The amount of new capital being raised by equity issuance is a few per cent per annum of the outstanding capitalization of equities worldwide. The game of asset management is mostly played

out in the secondary (or second hand) markets. It is claimed that all this activity confers the benefit of greater liquidity. Liquidity for what? More active management? Long term investors should not need that much liquidity.

Equities deliver a long run real return in the order of 5- 6% per annum. Rather than asset managers competing away the excess profits from asset management, it seems the end-investors are bent on competing away the entire return on equities. Each one is happy to pay up to get a slice of the cake and assumes that the more he pays in fees, the more he will receive in return. The managers are happy to indulge their client's aspirations and sadly, the cake gets smaller and smaller.

Today's investment world would provide a great subject for the as yet unwritten book 5 of Swift's satirical *Gulliver's Travels*.

Impact on real economy

Let me now turn to the contribution that stock markets and fund management make to the growth of the economy. The stock market may be a zero sum game in the sense that one investor's gain comes at the expense another investor's loss. That is true in relation to the return on the index, but faster growth in the economy would translate into greater corporate profits and higher equity values which benefit everyone.

There are two ways stock prices impact the real economy; what may be termed *the micro and macro effects*. The Micro has to do with the impact of relative share price movements on the allocation of capital across companies and sectors. Volatile stock prices play havoc with this. Out of favour stocks cause companies to be starved of capital, while fashionable sectors enjoy a surge of capital investment. It is often said that bubbles are a necessary stimulus to the emergence of new technologies. However the technology bubble overdid it with \$500 billion of capital investment in telecom infrastructure alone that will never be used.

If fair value investing loses this battle to momentum trading, capital will be misallocated and growth suffers. Moreover stock price volatility increases the required return for equities and therefore the cost of capital to industry.

The Macro impact concerns the effect of swings in the overall price level of equities on consumption and growth. Such Macro analysis is fiendishly difficult to unravel and, not surprisingly, there has been little attempt to do it. The casual route is presumably that a collapsing stock market tightens consumer's purse strings and threatens recession. Policy makers respond by cutting interest rates to offset the potential damage to the economy

Arguably central bankers have got better at monetary stabilisation and the past fifteen years or so of unbroken growth in the US and the UK may testify to that. The danger is that the preemptive drop in interest rates earlier in the present decade has created the conditions that are now finally upon us of over-borrowing and credit crunch. The trouble ahead may have been hatched by the stock market excesses of 2000 just as it was in Japan in the late 1980s

Stock Market turbulence can also trigger structural change both in the financial sector and more broadly. This may be beneficial or damaging to society as a whole and can often create significant redistribution of wealth. Take again the 2000 bubble. It singlehandedly dealt a mortal blow to defined benefit pension plans. It also caused a partial restructuring of the asset management industry as described earlier.

I conclude this section by saying don't underestimate the power of secondary stock prices to impact the real economy. The asset management industry does not know its own strength.

What is dysfunctionality?

I think we should be a little uncomfortable with the current state of finance theory. The behaviouralists have helped loosen the grip of efficient market proponents by introducing the idea that psychological biases lead to systematic mispricing. But what we observe is often far from systematic, more like systemic distortion. Also as I have tried to point out there are other features of financial markets, such as structure, scale and fees that remain unexplained or unconsidered.

An alternative conceptualisation is that all participants are acting rationally and optimally in the pure economic sense, but that the outcome may be socially sub-optimal. I have chosen to use the term Dysfunctionality to apply to this state of the world. It brings with it recognition of the social costs that may be imposed by the way in which financial markets function. It acknowledges that Adam Smith's dictum that the pursuit of private gain leads to the highest utility for all may not, after all, apply in the field of finance.

If dysfunctionality does indeed prevail, none of the players can necessarily be criticised for their actions. Fund managers and investment bankers, as agents are all engaged in a valid pursuit of their self interest. They can hardly believe their good fortune to also find their industry endorsed as efficient by academics. Only in a general equilibrium analysis may we come to realize the true social disutility of the system.

What remedy?

I am quite optimistic that much can be done without resorting to a battery of regulation. Take fund management again. Some of the helpful measures here could be to encourage the use of passive index tracking strategies, especially in equity investment; to reduce somehow the resort to momentum investing by agents; to reduce the amount of trading which is equivalent to extending the investment horizon of agents and principles, and to find investment vehicles that better match the needs of long term investors.

Although there has been a move towards socially responsible investing in recent years, that has so far only taken the form of avoiding investment in companies that are socially or politically tainted. At present it would be a step too far to expect investors, even large pension funds, to change their practices in ways that might improve the social efficiency of capital markets unless it gave rise to some obvious private gain. Fortunately there are steps that can be taken that meet the twin objectives of private and social gain.

One of these might be to encourage governments to issue a new class of investment, GDP bonds, that would give a return equal to the growth of real GDP. Capital markets have failed to develop an asset class that truly matches investors needs. Most investors seek three objectives: long term growth, inflation protection and low price volatility. Conventional bonds give a fixed money return but no protection against inflation. Equities offer long term growth and the prospect of a higher overall return but at the cost of excessive volatility. Index linked bonds hedge inflation but are without growth.

Investors are engaged in a perennial search for some combination of the three that they hope will fulfill their needs. They lurch between them as economic conditions and conventional wisdom dictate, collectively provoking the extreme price volatility that each is aiming to avoid.

GDP bonds would be alone in offering the attributes of growth, inflation-protection and stability. As such they would appeal to personal savers, pension funds and other long term investors. The attraction for issuers is that the servicing costs of GDP bonds rise and fall in line with tax revenue. There are technical issues to be overcome but work is going on to overcome them. It really is worthwhile since GDP bonds offer the ultimate passive investment.

Mind you, the investment bankers need persuasion to create an instrument that kills the golden goose.

Another area for improvement is the contractual relationship between agent and principal. It seems strange that end investors should issue contracts that have the effect of encouraging the agent simply to follow trends and pay him good money to do it. Remedies might include reporting data that revealed the extent of the agents use of momentum, much as they now do for tracking error, volatility etc. In the past tax-exempt investors in the UK used to jeopardise their status if they indulged in excessive turnover on the grounds they were trading rather than investing in shares. Maybe this could be revived

Investors would be prepared to commit to a higher proportion of their assets to passive index-tracking strategies once they saw a more stable market and fewer apparent opportunities for gain.

Finally I don't believe even serious professional trustees have a proper understanding of the real odds of winning, net of fees, from active management. Either that or they get very high utility from entering the tournament.

Wider Field

Now a few comments on the wider field of finance. The bloated size of the finance sector derives from several sources. One strikes me as especially important. None of us know how much of our spending goes on financial services. We know how much our mortgage costs but we do not know how much revenue or profit reverts to the bank from the mortgage payments. We are not likely to know the management and dealing fees that are embedded in our pension fund. We don't know how much cheaper our insurance bill would be if the company's investment return had born fewer deductions. We do not know what banking costs are as a proportion of the input costs for all the other goods and services we consume. Maybe we should and then we would realise the full extent to which the finance sector surreptitiously feeds off the real economy.

Then there are the four asymmetries. I refer to the asymmetric pay-off pattern that arises from bonus payments to dealers, performance fees to fund managers, limited liability, and more topically, moral hazard -- the willingness of central banks to step in to save a failing bank or system. Each of these emboldens financiers to take higher levels of risk or to embark on headlong expansion for their own ends.

Opacity is another device to extract supernormal profit and takes several forms. An increasing proportion of finance deals are over-the-counter or tailor-made, rather than executed transparently in the market, thereby removing the discipline of competitive pricing from the investment bank or broker. Hedge funds also fail to reveal their leverage, cost structure or source of profit, making the job of risk assessment impossible to the investor. Finally, the investor or customer has little negotiating power, fails to question questionable practice or is often supremely and foolishly optimistic.

A week or so before the beginning of the bank reporting season in the UK, a spokesman for the banks seeks to soften up the public with an article in the *Financial Times* justifying the high level of bank profits. The rationale is always the same: banks need high profits to foster confidence, they employ a lot of staff and contribute to GDP, and anyway the pension funds are big investors and receive dividends.

High profitability has not prevented crises of confidence in banking as witnessed recently. As to the other two, employment and cash-back, they could be used to justify any activity however futile.

Closing comments

I look forward to seeing three talented teams of academics from the three research centres now established; University of Technology, Sydney, London School of Economics and Toulouse University addressing the question, 'Is society well served by its financial institutions?', over the coming years.

They will each look into the causes, consequences and mitigation of dysfunctionality in capital markets. They will study the issues from the standpoint of theory, empirical investigation and policy. I believe that apart from war and peace, there are two great issues facing mankind, the first is climate change, the second is the dysfunctionality of the financial sector. The importance of the first is well known, the significance of the second will dawn on governments and society in the years to come.