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Taming the finance monster

The best way to resolve global financial instability is for the owners of capital to assert themselves, with sovereign funds well positioned to take the lead, say Paul Woolley and Dimitri Vayanos.

Having discovered the pitfalls of light regulation, policy-makers around the world are engaged in the daunting task of establishing a tougher framework for regulating the vast and complex banking and quasi-banking industry. But reaching agreement on common standards across diverse jurisdictions and then expecting these rules to bring financial stability appears to be little more than a 'pipe dream', as regulation in any form provokes resistance, distortion and evasion.

There is a different, though complementary, approach to making finance a better servant to society. This hinges on responsibility for improvement also lying with those whose capital is being abused by an errant system. Using such a method, the actions of giant funds around the world, notably official-sector funds, could take a lead with their aim to generate higher returns for themselves and at the same time contribute to the social goal of promoting more efficient, stable and less exploitative capital markets. Given their long horizon and proclaimed public responsibilities, sovereign wealth funds (SWFs) are ideally placed to take a leadership role.

Inefficient markets

A central pillar of capitalism is that competition keeps markets healthy. This was codified by Eugene Fama of the University of Chicago and Paul Samuelson of MIT in the 1960s with their 'efficient market hypothesis' (EMH). The EMH states that competition among rational investors keeps securities priced to reflect estimates of future cashflows, that capital markets are self-stabilising and that no-one can consistently earn excess profits. For the next half-century this understanding, together with the edifice of capital market theory built upon it, informed every aspect of the way the vast majority of policy-makers, regulators and practitioners went about their business.

Good outcomes were predicted for society. Capital investment would be directed to its best use, new financial products increased choice, and high profits reflected the value of bankers' contribution to economic growth and

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welfare. It was never questioned why the finance sector, no more than a utility facilitating trade and transferring current savings into fresh investment, had become the largest and most richly rewarded global industry. The EMH also provided the justification for light, principles-based regulation fashionable in the early/mid-2000s. The financial crisis challenged the received wisdom of efficient markets. Pragmatism replaced ideology and brought an about-turn to tougher regulation. But obstacles abound. Regulation is typically reactive and pro-cyclical, as seen in the way new lending is being hit by the requirement for higher liquidity ratios. Agreement and implementation are slow and contentious, as with the Volcker Rule in the US and the Vickers' Report in the UK. Arguments about 'too big to fail' and whether to split up or ringfence investment and commercial banking will run and run. Proposals are resisted by competing governments, let alone by those they seek to control. Once implemented, regulations are arbitraged and suspect activities driven into the opaque peripheries. Monitoring and policing also come at great cost.

New understanding of market failure

Regulation deals with the symptoms of market failure. An alternative approach is to discover the root causes of failure and try to deal with the problems at source. A good place to start is by asking why capital markets are not performing as received wisdom suggests they should.

The EMH assumes that households invest directly in securities and places the onus on asset owners to keep securities markets efficient. This is logical because investors gained personally from spotting and correcting pricing anomalies. Reality differs from theory in two important ways: first, people rarely invest directly; and second, prices disobey the prediction of efficiency by displaying trending and high volatility.

In practice, the bulk of asset owners ('principals') delegate investment duties to agents – fund managers, banks and brokers. Delegation creates problems because agents have better information and different objectives than the principals, and principals have difficulty knowing whether agents are competent and diligent – a classic case of asymmetric information.

New theories of markets and asset pricing need to be developed, which accept the flaws of the EMH and the current financial market landscape. We have developed a new asset pricing model that incorporates agents and, at the same time, maintains the assumption that all market participants act rationally in pursuit of profit.[1] The key mechanism of the model is that asset owners select managers based on their perceived ability as reflected in recent performance. Underperforming managers are fired and outperforming ones hired, leading to sales of securities that have already declined and rises in those that have already outperformed, thereby amplifying the initial price changes.

The practice of delegation sets in motion the forces that push asset prices away from fundamental value, causing momentum (trending) and, in extreme cases, bubbles and crashes. Think of what happened when value managers were being replaced by growth managers as the 'technology bubble' inflated in 1999–2000. Once mispricing gets into the system, investors are tempted to ride the trends for short-term advantage, instead of investing patiently on the basis of underlying worth.

Putting the new model to work

The new model explains many of the classic features of financial market performance that are copiously documented, but so far defy explanation except as responses to behavioural biases. These include momentum and reversal, value and growth effects, commercial risk and herding. The key difference between the old and the new is that the EMH has security prices determined only by expected future cashflows (dividends and interest payments), whereas our new model shows prices driven additionally by flows of investor funds moving across assets.

Our approach shows prices as the outcome of a complex set of interactions between principals and agents. How far this distorts valuations depends on how asset owners handle delegation and, specifically, the guidelines and investment strategies authorised in agents' contracts.

Intriguingly, we discover that the current practices are giving the worst possible outcome, both for funds themselves and for the economy at large. Like regulators, funds have been following procedures based on the discredited theory of perfect markets. They are using an instruction manual predicated on the efficiency of markets to invest in an inefficient world. They should instead be matching like for like by using strategies based on the presumption of inefficiency to invest under inefficient conditions. The current situation is as absurd as if physicists were working on the assumption of a universal vacuum or engineers building engines without regard for friction – both special and limiting conditions.

Where things go wrong

Asset owners recognise that markets are inefficient and hire managers to exploit 'mispricings' and control risk. Where they go wrong is in then specifying guidelines and objectives based on the opposite premise. The conventional procedures for the setting of performance benchmarks, analysing risk and choice of strategies are all based on the paradigm of efficiency.

Benchmark indexes

Funds use market capitalisation-weighted indexes as benchmarks for manager performance. This follows from the EMH view that market portfolios constitute optimal, minimum risk portfolios. But since component securities get mispriced, the investor is putting most money in overpriced securities and least in undervalued ones. As well as being detrimental to fund performance, the practice does nothing to offset price distortions and, at worst, amplifies them. Equity indexes also form the basis for exchange-traded funds (ETFs) and derivatives, so the problem is compounded.

Risk analysis and diversification

Specifying risk in terms of the divergence of portfolio composition and return from an index benchmark institutionalises mispricing. This also happens when risk is measured against peer groups, ensuring that funds sink or swim together. During the 'tech bubble', for instance, managers complied with customer guidelines on tracking error by increasing weights in stocks most knew to be overpriced. More generally, risk analysis using market prices, whether historic or current, will mislead the investor about future risks.

Attempts to diversify based on historic price correlations will rarely achieve the intended reduction in risk. The mid-2000s saw a big move into commodity futures to benefit from the observed negative correlation between commodities and equities. Massive fund flows turned the correlations highly positive and the diversification advantage largely disappeared. Fund flows into ETFs and index futures have similarly increased correlations among component securities.

Investment strategies

There are only two basic strategies for managing assets: fundamental investing and momentum, or trend-following. Fundamental investing uses estimates of future cashflows to determine the worth of assets, whereas momentum investing disregards valuation and simply rides the trends, usually over the short- to medium-term. Momentum is used to comply with tracking error constraints, to reduce the commercial risk of underperformance or in an attempt to give impatient principals a quick demonstration of the manager's ability. Momentum investing is also encouraged, probably unwittingly, by regulators forcing funds into regular mark-to-market valuations.

Bizarrely and damagingly, the rise in momentum investing means that the bulk of equity investment is now conducted without regard to the value of the assets being traded. The frequency of momentum-fuelled bubbles and flash crashes, therefore, comes as no surprise. The erratic behaviour and poor returns from equities during the past decade are now calling into question the very future of equity markets in developed economies.

The EMH is silent on both momentum and short-termism. It views momentum as an unexplained anomaly and perceives no difference between a strategy targeting long-run returns and one seeking to do the best over each of the intervening short-runs. Our new asset pricing model shows the *a priori* risk-adjusted returns from competing strategies and their variants, and demonstrates their suitability for specific categories of investor[2]. In particular, it shows momentum to be the strategy of choice only for investors with short horizons. Most large funds have long-term liabilities or objectives, and for them it pays to invest based predominantly on valuation.

Scale of activity

Much of the growth of the finance sector during the past decade has been associated with the expansion of derivatives trading for which outstanding contracts are now valued at many multiples of the market capitalisation of the underlying instruments. Traditionally, economists have seen this development as utility-creating, saying these instruments would only be bought if they conferred benefit. Our theory comes to the opposite conclusion and sees the size of the finance sector as testimony to its failings.

To explain why – take a fund hiring a manager to 'add value'. The EMH sees this as a potential gain for the fund, a marginal contribution to making pricing more efficient and eventually reducing the incentive for active management. We show that the last two propositions are true only if managers confine themselves to selecting securities based on valuation. Since this is rarely the case, market inefficiency is perpetuated or aggravated by each new appointment.

Emphasis on short-term outcomes is widespread among investors in all asset classes, including currencies and commodities. Derivatives promote short-termism by their very construction – most maturities are less than 12 months –

and through their cheapness to trade and liquidity. Investment activity – and the problems that accompany it – is no longer confined to the underlying instruments but can expand without limit into this virtual world of synthetic instruments. Hyperactivity also reverberates through the corporate sector, shortening boards' planning horizons for projects and shareholder value. Structured products, shadow banking and sharp expansions and contractions of credit all flourish in these unhealthy conditions and amplify the impact of any crisis. The scale of financial activity and the intensity of secondary trading indicate that financial markets are in a state of what might be described as 'expanding disequilibrium'.

The way forward

The social costs of dysfunctional finance show up in various ways: the misallocation of resources across the economy, especially to finance itself, the periodic crises, the costs of bailouts and regulation and so on. Each takes its toll on economic growth and the return to capital. Accumulating evidence for this is revealed every year in the published returns of pension funds, foundations and SWFs, and they do not make comfortable reading. Funds were delivering an average return of 4–5% per annum after inflation in the four decades before 2000, but have averaged only around 1% per annum in real terms in the past decade.

The average agent has no incentive to remedy the situation – in fact, quite the opposite. Agents have learnt that financial markets do not function like goods markets, and that the usual laws of competition do not apply under asymmetric information. Moral hazard, complexity and opacity all help them capture rents. They also benefit from mispricing, volatility and the proliferation of products. The costs and fees of intermediation go hand in hand with pricing inefficiencies in contributing to the erosion of the returns on savings.

The solution rests with the owners of capital or, in practice, their appointees, the trustees and governing bodies of giant funds. The 'manifesto of policies' below shows how funds could minimise the distortions created by principal/agent problems. The recommendations derive from our model of asset mispricing and would deliver increased long-run returns and lower risks for each fund. Not only is this true irrespective of what other funds are doing, there is, in fact, an early-mover advantage. As the numbers adopting these policies increase, capital markets would become more stable, finance less obese and aggregate returns would recover to their pre-2000 levels.

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1. Adopt a long-term approach to investing based on long-term dividend flows rather than momentum-based strategies that rely on short-term price changes. Value strategies need not be buy-and-hold, but do call for patience.
2. Cap annual turnover of portfolios at 30% per annum. Nothing betrays a closet momentum investor more than high and costly turnover. This need not be a rigid rule – the point is to force managers to explain their motives to asset owners.
3. Understand that all the tools currently used to determine policy objectives and

implementation are based on the discredited theory of efficient markets. Risk analysis and diversification should be based on the earning power of assets and not on short-term price changes.
4. Replace benchmarks based on market capitalisation with ones that are more stable: these might be linked to gross domestic product growth, either national or global, or measures of dividend growth.
5. Performance fees, if any, should be based on long-term results.
6. Be wary of new investment products and 'alternative investing'. Many offer some real advantage, but these are compromised by high fees and the way they may distort markets.
7. Insist on total transparency by managers with respect to strategies, costs, leverage and trading
8. Avoid structured, untraded and synthetic products. They are likely to be constructed on a methodology that assumes market efficiency.
9. Work with other shareholders and policy-makers to secure full transparency of banking and financial service charges borne by companies in which the fund invests. Challenge the short-termist tendencies of corporate management.
10. Provide full disclosure to all stakeholders and allow public scrutiny of each fund's compliance with these policies.

Policy-makers must play a supporting role as follows:
1. Adopt these policies for prominent public funds where possible, and take meaningful steps to encourage adoption by private sector funds.
2. Withdraw tax-exemption rights for all funds that fail to cap turnover.
3. National governments should issue GDP-denominated bonds, both as an attractive asset class and as a stable benchmark for fund performance.
4. Recognise that mark-to-market valuations encourage short-termism. Alternative approaches focused on income should also be used.
5. Ensure that corporate taxation does not discriminate against dividends.

Whereas regulation involves coercion, this manifesto offers a solution that aligns private and public interests. But the forces of reaction are formidable. It takes decades for a new paradigm to win acceptance from academics; financiers have a vested interest in the status quo; trustees are conservative and mostly drawn from the finance sector; and policy-makers have short horizons and political constraints. The solvent tax-paying layperson, unencumbered by dogma, often sees the need for action more clearly than any professional.

The failure of financial markets is putting capitalism and the prosperity of nations at risk. The only people who can save capitalism are the owners of capital. One way forward could be for several prominent sovereign wealth funds and pension funds to take the lead in implementing the new approach, pressured if necessary by their ultimate beneficiaries, or more accurately, victims. ❑

Notes

1. Vayanos, D and P Woolley, "Capital market theory after the Efficient Market Hypothesis", CEPR Vox, October 2009.
2. Vayanos D and P Woolley, "Choosing an investment strategy for an inefficient world", CEPR Vox, January 2012.