

**CISI Level 3 Diploma in Finance, Risk & Investment**

**Extended Project**

**Report**

What further measures could be implemented in securities regulation to ensure that the self-interested rational choices of the agent coincide with the wishes of the principal?



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## Executive summary

There are a number of aspects to the problem of poor stewardship of publicly listed companies. Firstly, the principal (the shareholder), rarely holds the share long enough to exercise any meaningful control over the company. Secondly, once they have been become established on the stock-market, few listed companies rely on the equity markets for capital raising. Thirdly, the majority of principals are actually agents of other principals. No wonder, therefore, that the agents (the company executives) have been getting away with poor stewardship for decades.

This Report proposed a number of solutions. These include the imposition of regulations requiring companies to issue shares on a partly-paid basis and to defer the payment of executive compensation and make it subject to claw-back. It also concludes by asking whether payment of dividends should also be made on a deferred basis too.

## Introduction

The principal-agent problem is neatly summarised by Marc Poitras, professor of economics at the University of Dayton, as follows:

“[The] problem arises because corporate organization separates the roles of ownership and control. The owners are the shareholders, but day-to-day control of the organization lies in the hands of the corporate managers. In theory, the managers work for the shareholders, but the shareholders (principals) cannot exercise sufficient control over the managers (agents) to get them to do what the shareholders want, which is to maximize the firm’s long-term profit. As a result, the managers have at least some freedom to dissipate the firm’s profits in ways that benefit not the shareholders, but the managers themselves.” (Poitras, 2014)

The CISI work-book, Investment, Decision-Making, Accountancy and Governance, cites the obligations of agents “to act all times in the best interests of their principals, not to make secret profits at their principals’ expense and to disclose fully all matters affecting their relationship with their principals” (Seaward, 2013). This is easier said than done: the principals (in the case of equities, these are assumed to be the shareholders), appoint the agent (the management), to run the company on their behalf; yet the agents know much more about the company than the principals, and they take advantage of this to run the company for their own benefit rather than the principals. When owner and manager “have different interests and asymmetric information ... the principal cannot directly ensure that the agent is always acting in its (the principal's) best interests” (Bebchuk, 2004).

The principal-agent problem was a core underlying reason for the Global Financial Crisis (GFC), in 2007-2008. In his high-profile book “The Big Short: Inside the Doomsday Machine”, former securities trader, Michael Lewis blames Wall Street’s shift from the partnership (i.e. co-ownership) model to the corporate

model for excessive risk-taking by the financial services sector: “The moment Salomon Brothers demonstrated the potential gains to be had from turning an investment bank into a public corporation ... the psychological foundations of Wall Street shifted, from trust to blind faith. No investment bank owned by its employees would have leveraged itself 35:1, or bought and held \$50 billion in mezzanine CDOs.” (Lewis, 2010).

It could be argued that the principal-agent problem has actually worsened since the GFC, due to the proliferation of high-frequency trading (HFT). Shareholders may “own” a stock for milliseconds at a time, several thousands of times a year. Stock exchanges now earn millions by charging HFT traders for the right to “co-locate” their trading computers in the same building as the exchange’s servers to gain a fraction of a second advantage when executing their orders (Picardo, 2014). In June 2011, Professor John Kay was asked by the Secretary of State for Business, Innovation and Skills to review activity in UK equity markets and its impact on the long-term performance and governance of UK quoted companies. In its report, Kay and his team of industry experts concluded that “the concerned investor [has been replaced by] the anonymous trader” and that “current levels of trading activity exceed those necessary to support the core purposes of equity markets” (Kay, 2012).

Italy is one of just many countries proposing to levy a specific tax on HFT (Picardo, 2014), but the principal-agent problem goes very much deeper than that. How do you make companies behave responsibly when the people who run them are answerable to “owners” who do not actually own it in the accepted sense of the word? In Professor Kay’s earlier book, “The Long and Short of It: Finance and investment for normally intelligent people who are not in the industry”, he pointed out the inconvenient truth that shareholders are not part-owners of the companies in which they hold shares. In fact, successive judgments by the highest court in the UK have determined that all the only thing that shareholders own is a series of rights, the most important of which in terms of corporate governance is to vote at general meeting once a year — a right which many shareholders fail to exercise (Kay, 2009). We must also take into account the fact that the globalisation of financial markets also means that foreign shareholdings of companies is increasing rapidly (Kay, 2012), which makes their voting at the AGM even less likely.

So we need to ask the question: do the principals even care about their companies anymore? Why should the prison inmates who continuously trade the same battered cartons of cigarettes need to worry that tobacco is spilling out of the torn packaging if no-one ever intends actually to smoke the contents? Do shareholders care that “their” company is being stripped of long-term investment cash to pay dividends if they only hold the equity for micro-seconds? The problem is one of two-way accountability: how to make the agents accountable to the principals; and how to make the principals hold their agents to account. This Report reviews the various suggestions out there in the market and attempts to offer some solutions of its own.

## Limited liability and moral hazard versus the need to raise capital

It is often argued that the invention of limited liability permitted the industrialisation of the global economy to take place (Seaward, 2013). Investors could place their money in a venture, knowing that any potential losses would be capped at the size of their original investment, and not be proportional to their shareholding. This poses a few problems with accountability: it might be comforting for an investor to know that their 25% share of the paid-up capital costing – say – £1m will not result in a liability for 25% of the outstanding liabilities of a bankrupt company totalling – say – £100m, but could that immunity lead to irresponsibility on the part of the shareholder? If the shareholder knows his exposure is capped at the size of his initial stake, but there are limitless potential rewards from allowing the company to pursue a highly risky strategy, this could incentivise this principal to give his agent (the management) a much freer rein than if the principal were still “the hook” for a share of the losses.

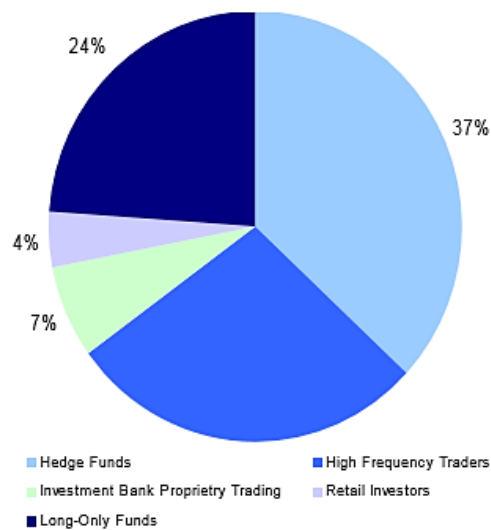
The concept of limited liability links closely to the problem of “moral hazard”. This is a term for the tendency of individuals or companies to take on more risk if they know they will not have to bear the full consequences of their actions if things go wrong. The then Bank of England governor, Mervyn King, was initially reluctant to act to bail out the UK banks at the height of the UK banking crisis in 2008 because he was fearful of setting a precedent which would lead to greater risk-taking in the banking industry. (Davies, 2007). In his evidence to the UK House of Commons Treasury Select Committee in September 2007, King warned that “the moral hazard inherent in the provision of *ex post* insurance to institutions that have engaged in risky or reckless lending is no abstract concept” and that such *ex post* (i.e. after the fact) insurance “penalises those financial institutions that sat out the dance, encourages herd behaviour and increases the intensity of future crises” (King, 2007).

The challenge therefore is to devise a system that leaves the shareholder still on the hook in a way that discourages moral hazard but not to such an extent that equity investment is stifled. For over a century the accepted wisdom has been that limited liability is essential if financial markets are to raise the capital needed by firms to fund their investment (Cortenraad, 2000). More recently, the main reason why the Communist authorities in China allowed the re-opening of the Shanghai Stock Exchange in 1990 was to enable companies to tap Chinese household savings. As the official history of these reforms explained: “The capital markets are expected to finance the sustainable economic growth of China... The capital markets are expected to provide the capital needed by Chinese enterprises to innovate and commercialize technologies” (China Securities Regulatory Commission, 2008).

It is unlikely that any country would accept a new system of securities regulation if it threatened this core requirement. However, the importance of this capital raising function is now being questioned. Professor Kay’s Review asserted that “UK equity markets are no longer a significant source of funding for new investment by UK companies”, (Kay, 2012). An analysis of UK stock markets trading, cited in the Kay Review, found that Hedge Funds (37%) High Frequency Traders (28%) and Investment Bank Proprietary Trading units (7%) accounted for 72% of UK average daily share turnover; traditional long-only funds and

retail investors – the type of investor for which limited liability was designed to protect – account for only 28%. This suggests that the financial markets are being used as a vehicle for speculative investment rather than as a valuable source of investment capital.

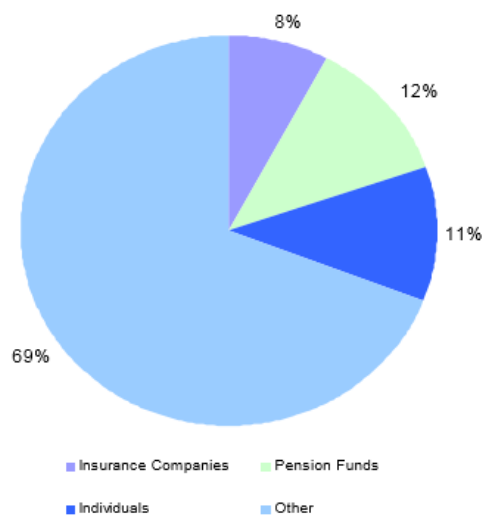
**Fig 8: Percentage of UK Average Daily Share Turnover, by Beneficial Owner Type**



Source: TABB Group  
 Note: Population covered consists of all UK markets, including; LSE, Chi, Turquoise etc.

The Kay Review emphasised the importance to distinguish between owners and traders. In its analysis of share ownership, it found that pension funds, insurance companies and individuals own only around 30% of the UK’s 100 largest listed companies (as listed in the FTSE100 index). The overwhelming majority are owned by asset managers and other intermediaries – professionals who invest on behalf of others.

**Fig 7: FTSE 100 Ownership by Beneficial Owner Type (percentage of total value)**



Source: CASS Business School

Furthermore, the Kay Review reported that although many of these asset managers operate out of the UK, a significant proportion (40%) of the actual beneficial owners are based outside of the UK – a figure which has grown sharply over the past 25 years.

**Table 1: Historical Trends in Beneficial Ownership (Percentage Held)**

	1963	1975	1981	1991	2001	2008	2010
<b>Rest of the world</b>	7	5.6	3.6	12.8	35.7	41.5	41.2
<b>Insurance companies</b>	10	15.9	20.5	20.8	20	13.4	8.6
<b>Pension funds</b>	6.4	16.8	26.7	31.3	16.1	12.8	5.1
<b>Individuals</b>	54	37.5	28.2	19.9	14.8	10.2	11.5
<b>Other</b>	22.6	24.2	21	15.2	13.4	22.1	33.6

Source: ONS

Confusingly, these asset managers are therefore *agents* working on behalf of the beneficial owners of the money they are investing (their *principals*). In the case of equities, these asset managers are responsible for the performance of the companies in which they have bought shares, companies which are managed by directors, who of course are the asset managers’ agents. But who are the directors’ principals... the asset managers or the asset managers’ principals? This extended chain of command makes it even less likely that the true owners of the capital have control over the company whose operations they are supposed to be funding.

## Solutions

Various solutions have been proposed over the years to the problem of aligning the interests of shareholders with those of the management. The first challenge is finding a way to make the shareholders actually take an interest in the stewardship of the companies in which they have “invested”. Having achieved that, the second challenge is to make the stewards of the company comply with the expressed wishes of their principals.

### Partly-paid shares: keeping shareholders involved with their companies

One solution to the moral hazard of limited liability is to require all shares to be issued on a partly-paid basis. The idea here is that shareholders would be liable for the unpaid portion of their shares in the event that the company failed to meet its obligations. The way this might work would be for companies to issue shares with a nominal value of say, £1.00, with shareholders required to pay only 50p upon the initial subscription; the partly-paid shares would be accorded most of the rights usually attached to full share ownership (i.e. to vote at general meetings, receive dividends when declared etc.), but in the event of their company being wound up, they would only be entitled to their share of the remaining assets if the remaining portion of the nominal value were fully paid up.

The partly-paid share solution has a number of advantages:

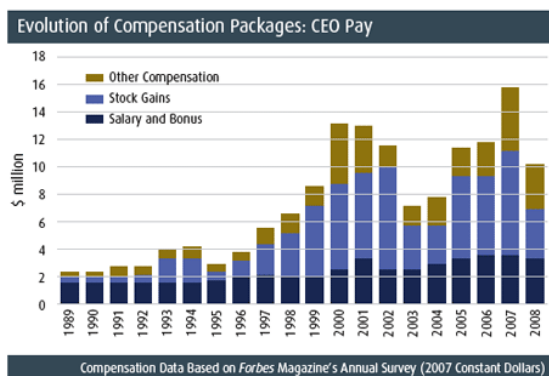
- Share-holders would have a strong financial incentive to take an active interest in the running of their companies and to foster good stewardship;
- Companies on the brink of being declared insolvent would have recourse to further injections of capital arising from the call on existing shareholders for the unpaid portion of their share; nominal value;
- The principle of limited liability would be maintained in law, as the full extent of further shareholder liability would be known in advance and limited to the full nominal value of the shares.
- Companies would not be disadvantaged in terms of the amount of funds raised in an initial public offering (IPO), as they could simply issue more shares to make up the shortfall.

This partly-paid share proposal is nothing new. In the 19<sup>th</sup> century, “shares with nominal values of up to £1,000 were subscribed to with only a small payment, leaving even a limited liability investor with a potentially crushing liability and restricting investment to the very wealthy. During the Overend Gurney crisis (1866–1867) and the Long Depression (1873–1896) many companies fell into insolvency and the unpaid portion of the shares fell due. Further, the extent to which small and medium investors were excluded from the market was admitted and, from the 1880s onwards, shares were more commonly fully paid.” (Jefferys, 1954).

In an era of HFT, it might be thought difficult to determine who the actual shareholder was at the precise moment when a company went bust, and therefore who would be liable for payment of the amount outstanding on the partly-paid shares. However, somehow or other the share registrars of companies are still able to determine who is entitled to receive the dividend just before the ex-date, therefore this problem cannot be impossible to overcome. The best mechanism would be to trigger the call on the unpaid portion at the split second that trading in the shares of the stricken company is suspended by the stock exchange.

### Aligning the interests of agents and principals: linking remuneration to the share price

Until relatively recently, it was considered that the granting of share call options to directors and



executives was the best way to align the interests of a company's directors more closely with those of their shareholders. By 1999, options had come to account for a greater proportion of US chief executive officers' remuneration than basic pay (The Actuary, 2006).

Share call options give the holder to right – but not the obligation – to buy a share at some point in the future at a price which has been fixed at the time of the

granting of the option (CISI, 2015). When used as part of a company's remuneration scheme, executives



are granted the option (i.e. no premium is payable) by the company, and the exercise price is often set at the level of the company's share price at the time of grant.

In theory, this gives a powerful incentive to the executive to work hard on behalf of the company to ensure the share price goes up over the period leading up to the first exercise date. However, the process was so open to abuse (particularly in the form of back-dating stock options to ensure that the holders always profited) that regulators have been cracking down on the practice (Barnes, 2015).

Warren Buffett stated his opposition to share option scheme as early in 1998, in his annual letter to his Berkshire Hathaway shareholders: "Though options, if properly structured, can be an appropriate, and even ideal, way to compensate and motivate top managers, they are more often wildly capricious in their distribution of rewards, inefficient as motivators and inordinately expensive for shareholders" (Buffett, 1998).



Buffett, as usual, was way ahead of his time. It was eight years later that the industry regulators decided to act. In 2005, the Financial Accounting Standards Board (FASB) required companies for the first time to charge options in their accounts as an expense. The attraction of company share options as a cheap, non-pay method of incentivising their workforces evaporated.

### Aligning the interests of agents and principals: executives as long-term shareholders

The surge in popularity of company share option schemes was due to the view that the best way of solving the principal-agent problem was to make the agents principals too. These schemes fell out of fashion because they ended up costing the existing shareholders too much money and they were open to abuse. However, the underlying idea of making the management joint owners was still valid.

The persistence over the centuries of the partnership model indicates that shared ownership of a business is still considered to be a good way of ensuring that risks are shared evenly and information is available to all the owners. However, partnerships are not appropriate for enterprises which may need to raise more capital on a regular basis. The trick is to apply the best features of the partnership model to the limited company structure. The example of Apple Inc. might offer a solution.

The executives of Apple Inc (until recently the world's largest company) were required by a new company rule in 2013 to hold shares in Apple Inc equivalent to three times their base annual salary. Non-Employee Directors of Apple must hold five times their annual retainer, and Apple CEO Tim Cook must hold 10 times his annual base salary. The base salaries for the majority of senior executives in 2013 was reported to be US\$875,000 and Cook was rumoured to have had a base salary of US\$1.4 million, so this rule implies a significant level of commitment. A shareholder proposal that Apple executives should be required to hold on to 33% of their Apple shares until retirement was voted down at its AGM at the urging of the directors, (Haslam, 2013).



### Aligning the interests of agents and principals: deferred or clawed-back compensation

Although the Apple directors clearly did not like it, the idea of requiring management to delay cashing in their compensation has been gathering momentum. Company share options can be given an extended vesting period of up to five years, and forfeited altogether if the executive leaves the company's employment before the vesting date, (vesting is the point at which the option holder has the right to exercise the options). Vesting can also be linked to a company's performance rather than a date in the future.

"Bonus-malus" ("good-bad") is a system which has been in use in the motor insurance industry for decades but is now being applied to executive remuneration. In motor insurance, policy-holders are rewarded for safe driving in the form of a no-claims bonus: in the event of a claim, they lose this no-claims bonus. In company remunerations schemes, executives are required to wait several years for their annual bonuses to vest, and in the event of subsequent losses, these bonuses are clawed back. In 2008, the Swiss bank, UBS implemented a bonus-malus system after criticism from investors that executives received generous bonuses even after the bank had to be bailed out by its government to the tune of US\$60bn (Associated Press, 2008).

### Is it in our wider interests to solve the principal-agent problem?

A question that needs to be asked is: as a society, do we really want the managements of companies to be slaves to the wishes of their shareholders? The majority of equity investors invest in shares for dividends, growth in dividends and capital gains from an increase in the price of their shares. Only if those three desires are being satisfied, are they usually willing to tolerate a certain amount of philanthropic behaviour by their boards, yet society increasingly expects companies to be "good citizens".

In 2014, Apple's chief executive, Tim Cook, was asked at its general meeting by one of its shareholders, the conservative American pressure group, the National Center for Public Policy Research (NCPFR), to stop investing in sustainability projects if these did not create profit for its shareholders. According to a report at the time, Cook became angry, retorting that "that there are many things Apple does because they are right and just, and that a return on investment (ROI) was not the primary consideration on such issues" (Chaffin, 2014). Commenting on this event, Professor Marc Poitras asked his students to predict how Cook would react if, hypothetically, he had paid a maid to clean his mansion for eight hours but the maid cleaned only for six hours, devoting the remaining two hours to helping out in a soup kitchen for the homeless: would he sack the maid? Poitras's students unanimously agreed that Cook would sack the maid (Poitras, 2014).

Do we really want ROI to be the yardstick by directors are measured? In a world where 1,318 corporations are estimated to control 60% of global revenues (Coghlan, 2011), it is questionable whether we want the principals to have 100% control of their agents, if the sole motive of the principals is profit, or whether we want their agents also to be answerable to governments, ordinary people and the planet.

## Conclusion

In the world of equities, there would be more moral authority to the view that agents must be subordinate to the wishes of their principals if the principals themselves took an interest in the long-term future of their companies. The reality is that they are not. The majority of share transactions are no more than a speculative punt. We have to restore the link between share ownership and the running of the company.

Partly-paid shares would help reduce the moral hazard of limited liability. Fear of being left “holding the baby” would encourage buyers to look closely into the health of the companies whose shares they were buying. In a sharply falling market, buyers would disappear, forcing share-holders to work closely with their companies’ managements to ensure the company survived.

Deferred compensation for executives and the introduction of claw-backs would keep the management on the hook, just as the threat of further liability would keep the owners of partly-paid shares on the hook, too. And, just as executives are increasingly being forced to wait years for their bonuses and share options to vest, so should the payment of dividends be deferred too. It would be a powerful incentive for shareholders to ensure that their executives managed their companies responsibly if they knew that payment of dividends depended on the continued existence of the company.

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