

Agency Problems of Asset-Embodied-Agents: Evidence from Recurring Financial Crises

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ABSTRACT: *Agency theory and property rights consider assets and agents as separate entities. It works well in capital intensive industries. However in knowledge intensive industries human assets are more relevant. Here assets are embodied within the agent. We define them as Asset-Embodied-Agents. We argue Anglo-American model fails to address the agency problems of asset-embodied-agents. Evidence of recurring financial crises in Liberal Market Economies supports our argument. We further argue that coordinated market economies are less prone to financial crisis.*

In traditional neoclassical economics assets like machines, inventories and labour are treated as elements in a production function. Agency theory and property rights theories depart by considering decision making rights of agents/labour with respect to his/her effort and objectives and explore the problem posed by conflicting goals of principal and agent. Agency theory is one of the most influential economic theories. It analyses situations of contract under which the principals engage the agent to perform some service on their behalf. It involves delegating some decision-making authority to the agent, which might result in conflict of interests especially when both principal and agent are utility maximizers (Jensen and Meckling, 1976). Agency relations can be both within the firms (traditional manager and subordinate relationship) and between firms (in the case of licensing or franchising). The main concern is that the welfare of the principal may not be maximized because the principal and the agent have conflicts of interest as well as differing predispositions toward risk. Agency theory assumes that agents are opportunistic in behaviour and also assumes considerable autonomy and freedom to the agents. The challenge is to minimize costs associated with an agency relationship.

Jensen and Meckling (1976) identified three types of agency costs: the monitoring costs by the principal, the economic bonding expenditures by the agent; and the residual loss and finally concluded that agency costs are unavoidable non-zero costs. Asymmetric information

in imperfect capital market leads to conflict of interests between different participants in the organization and influence the capital structure of the firm (Harris and Raviv, 1991). In highly leveraged firms debt ensures that the firm has to pay out the cash which reduces the free cash available with managers as well as reduces opportunistic behaviour (Jensen, 1986) but there is a cost associated with the debt. Agency cost of debt, due to the informational asymmetry, may affect the investment decision (Harris and Raviv, 1990). A firm with a high debt might go for risky investments. Since the risk is shifted to debt holders, it can lead to over investment, or even it may forgo positive NPV projects. Asymmetric information between managers and investors in imperfect capital market leads a set of corporate governance issues (Diamond, 1989; Myers and Majluf, 1984).

Property rights approach began with the seminal work of Coase (1960) where he explored market failures in the context of public goods. Nobody owns a public good and no one has any incentive to create a public good or to maintain it. Coase showed that when two parties are affected by an externality, assigning property rights will lead to an efficient outcome no matter how the initial property rights to the externality-creating variables are assigned provided they can negotiate costlessly with each other. Two classic contributions to the modern property rights approach are Grossman and Hart (1986) and Hart and Moore (1990). Grossman and Hart (1986) emphasize that contractual rights are of two types: specific rights and residual rights; when listing of all specific rights are costly it's optimal for one party to purchase all residual rights to avoid distortions (i.e. ownership). Hart and Moore (1990) extend the previous work of Grossman and Hart (1986), and provide a framework to judge when transactions should be carried out within a firm and when through the market, identify the boundary of the firm with the assets that its owners control. This is also known as Grossman-Hart-Moore (GHM) model. Property rights defined 'ownership' as the possession

of residual rights of control, that is, rights to control the uses of assets under contingencies that are not specified in the contract (which is similar to Jensen & Meckling, 1976).

Agency theory and property rights theories consider situations of exchange where one party delegates work to another and assume that agents will behave opportunistically if their interests conflict with those of principals. In other words "... the domain of agency theory is relationship that mirror the basic agency structure of a principal and agent who are engaged in cooperative behaviour but have differing goals and differing attitudes towards risk" (Eisenhardt, 1989:59). The existing literature addresses these problems by designing appropriate monitoring and bonding mechanisms (Jensen and Meckling, 1976) and specifying allocation of specific and residual control rights over assets (Grossman and Hart, 1986; Hart and Moore, 1990). Both these approaches address corporate governance issues to certain extent but this arm's length transaction fails to curb the greed of agents in totality. Here institutions beyond the boundary of firm can potentially play a crucial role in governance problems. Fama and Jensen (1983) argued the case for including outside members in corporate boards since outside directors have incentives not to collude with managers to expropriate residual claimants as they are motivated to develop reputations as experts in decision control. Hambrick et al. (2008) also recommend going beyond the formal structure and explore other aspects like institutional context.

In addition to these shortcomings, both *agency theory and property rights consider assets and agents as separate entities*. This assumption works well in most capital intensive manufacturing industries where assets like plant, building, machinery etc. are generic in nature. The agency problem intensifies in case of asset specificity. Following Williamson's seminal work, the existing literature explores this as a hold up problem. In line with Williamson, the literature suggests vertical integration to address this asset specificity. In

other words, principal can reduce agency costs due to asset specificity by having the control rights over specific assets. However in a professional service firms this assumption is problematic in nature and traditional approach fails to mitigate the agency problem. In professional service firms the physical capital requirements are relatively small, human assets are more relevant. Here assets are embodied within the agent (or employee) and asset specificity arises due to the domain specific knowledge of the agent. In this paper, we define them as *Asset-Embodied-Agents*. It is worth to emphasize that even in absence of asset specificity contractual problems exists in professional service firms. For example, in legal process outsourcing, where there might be abundance of lawyers with similar expertise but each person is engaged in a unique undertaking. So even if “assets” (that is a human asset like a qualified lawyer) are generic in nature contractual problems exist. In addition if you terminate the contract with the agent, valuable assets will also go with the agent. As a consequence addressing the agency problems of asset-embodied-agents, so that he doesn't appropriate his control rights for personal gain, becomes very difficult.

Professions are occupations which require domain specific knowledge based on abstract bodies of knowledge. In professional service firms, agents enjoy special power due to domain specific knowledge of the professions like medicine, law, accountancy, consultancy etc.

These professionals control their own work and they have a great deal of say on how their work is done. It is worth to mention that there are several scenarios in a professional service firm. At one extreme end there are fairly routine call centre works of BPOs (Business Process Outsourcing). One step more than this is knowledge works like KPOs (Knowledge Process Outsourcing). Although these KPO jobs involve discretion, it is of a limited kind that can be monitored. The performance can be benchmarked against other agents within the firm or industry. There is a cost associated with these monitoring and metering. When the principals cannot gather the information (or it is too costly for them to do so) third party institutions

come up to do the job. According to traditional approaches, high observation costs can be avoided by benchmarking the agent's output with other agents engaged in similar kind of activities/industries or by making him the residual claimant.

These approaches like benchmarking, third party institutions, or residual claimant might work to a certain extent in professional service firms characterized by routine works such as KPOs. However, this is not the case in highly knowledge intensive industries like research laboratories or medical profession. Most of the tasks are unique in nature and benchmarking with other agents is not a feasible solution. These professionals define the content of their own work and their own conduct. The recipients of these professional services are not themselves knowledgeable to solve the problem or to assess what is required. Since these professional from highly knowledge intensive cannot be controlled by principals in the same manner as other types of agents, society puts a great deal of trust on these professionals to control and regulate their own practice. An example is, the role played by medical associations in regulating the conduct of medical professionals.

In spite of such safeguards like social norms, concerns remain about agent opportunism. This is especially so when principals are dependent on agents who have expert knowledge of the kind not possessed as well as not possible to possess by principals. Agency theory postulates that principals can reduce information asymmetry by instituting better systems of information. However, in these kind of principal professional exchanges the situation is marked by *knowledge asymmetry* not *information asymmetry*. Not knowing how the agent does the job is very different from not knowing what the agent does. So in principal professional exchanges professional agents have the power over principals because professionals possess task related knowledge and the principal is at a disadvantage. In these

exchanges whether professionals take advantage of this knowledge asymmetry depends upon restraints.

Sharma (1997) identifies four broad restraints in professional service firms. *First*, if principals rely solely on rational control during exchange then agents are more likely to behave opportunistically. Instead if the principals are involved in a big way in the work of the professional agent then the professional agent is less likely to behave opportunistically. Hence a sense of responsibility bestowed on an agent by the principal can act as a restraint for the professional agent. *Second*, the professional agent is less likely to behave opportunistically when there is profession wide enforcement of well defined codes of conduct as standards of work. For example, a consulting engineer/architect has to follow the building code and regulation. *Third*, if the supervisors are themselves professionals then the professional agent is less likely to behave if the opportunistically. Furthermore if the firm uses behaviour based controls rather than output based controls then the agent is less likely to behave opportunistically. So nature of internal structure of the organization matters in mitigating opportunistic behaviour. *Fourth*, the agent is less likely to behave opportunistically if the principal has alternative access to the relevant data base or has some knowledge of the area of work of the agent. If the clients require that agents make investments in assets specific to the exchange (either because of the institutional context or because of repeated transactions) then the agent is less likely to behave opportunistically. Client control can also act as a restraint for professionals.

However questions can be raised about these restraints in financial sector. Since the behaviour of professionals in financial intermediaries is often characterized by naked self interest. In financial intermediaries there are two types of agency situations. One owner (shareholder) of financial firm and managers (standard landlord-tenant kind of situation) and

the other is those who entrust their funds with the firm. The second one is more severe and similar to the conflicts between shareholders and debt-holders. In financial intermediaries customers are similar to debt holders (Cho, 2009). Like the traditional equity holder versus debt holder conflict (Diamond, 1989), here also a financial intermediary has options of making a safe investment (which is a positive NPV investment) or a risky investment (which is a negative NPV investment). Customers don't have the technical expertise to judge whether the financial intermediary is investing in a risky option or a safe option. More importantly, a financial intermediary has the incentive to act sub-optimally going for a high risk-high return where he/she will benefit in case of success and customers will suffer in case of failures.

We argue that restraints on financial intermediary's opportunism are virtually nonexistent in the financial sector. *First*, financial sectors rely on bonuses etc. which are of the nature of rational controls. *Second*, financial sectors are characterized by lack of well defined professional standards and sense of community is missing. People in the financial services sector are driven by greed tend to be solitary. Even if agents are given a share of the residue, their animal spirits will tend to risky decisions as they do not bear the cost of failure but enjoy the benefits of success. Here interest-alignment is not an issue but predispositions towards the risk differ. *Third*, internal structure of a financial intermediary also fails to address the agency problem. Though supervisors are themselves professionals but the agency problem is not the standard principal-agent conflicts. Rather as we mentioned earlier it is more like a debt holder-equity holder scenario and clients have very little control over professionals. Clients have to leave their money to the discretions of professionals. Here the task is to align the interests of the shareholders/professionals and debt holders/clients. This would mean putting restrictions on excessive risk taking by agents. It is important to note that standard market discipline does not work here, since clients are not in a position to judge and clients are also

not in a position to directly monitor management. Moreover in a market based performance measure the problem is that professionals rewarded with stock option benefit when stock price rises but is not penalized when it falls. The situation is more like a *caveat emptor* (or let the buyer beware). In addition options like golden parachutes for executives encourage them for excessive risk taking. As a consequence excessive risk taking can be worse for clients than not taking any risk.

It can be argued that the doctrines of efficient capital market hypothesis might not be an efficient solution in financial sectors. Evidences of recurring financial crises in developed economies support our argument. In an investment bank asset-embodied-agents with tacit knowledge about the financial markets are more important than financial capital and it is difficult to observe their efforts. Ex ante contracts, suggested by the extant literature, like monitoring and bonding or allocating property rights rarely work in these situations.

Proponents of efficient capital market hypothesis failed to design a mechanism to curb the greed of asset-embodied-agents. We argue that the USA-UK model of capitalism is more prone to this kind of financial crises. In accord with Stiglitz and colleagues, we argue that other forms of capitalism characterized by government interventions can be more effective in controlling these asset-embodied-agents. But will it come about? There is no doubt that radical reform is needed but the capitalist culture in USA-UK is against any change towards regulation and government intervention. The free market ethos is so entrenched that politicians/regulators can at most come up with proposals calling for minor adjustments. There is a belief that basically all is well and that the recent crisis is a momentary blip. Entrenched positions are hard to change in these so-called liberal market economies.

Hall and Soskice (2001) argue that the main problem facing policy makers in any type of economy is to come up with economic policies that are “incentive compatible” that is

“complementary to the coordinating capacities embedded in the existing political economy”.

In liberal market economies firms coordinate their activities primarily through markets.

Exchanges are characterized by arms-length exchange in the context of competitive and formal contracts.

This would mean that in the Anglo-American model of the liberal market economy (LME) policies that are put forward are those which will sharpen market competition in effect propose more of the same. But the Anglo-American model is not the only one in the developed world. There are also coordinated market economies (CME) where firms depend more on non-market relationships to coordinate their activities. In these economies firms draw upon another set of organizations and institutions for coordinating their activities. These institutions provide for a) exchange of information and b) sanctions if there are deviations from co-operative behaviour c) monitoring. These could be employer organizations, trade unions and networks of cross shareholding. Inter-firm relations entail more extensive relational or incomplete contracting whereas in liberal market economies relationships are of the arms length type. Hall and Soskice (2001) showed that there are variations in the pattern of coordinated market economies; for example in European CMEs the basis is industry based co-ordination, whereas in Asia such as Japan and S. Korea it is group-based co-ordination.

Given that there are two very different types of capitalist economies it would be very difficult borrow the institutions from one to use in the other. We suggest that the financial sectors of liberal market economies are characterized by asset-embodied-agents where arm's length kind of approach fails to curb the greed of agents. Hence *financial crisis will be endemic in liberal market economies*. In contrast coordinated market economies use a different pattern of incentives and are less prone to financial crisis. And this is evident from the stable existence of countries like India and China during recent financial crises in USA. In CMEs one sector

(financial sector) cannot have excessive profits. The intriguing question is: Given that there are these two syndromes what is the consequence? As we have argued systems are very hard to change. The dominant ideological stand promoted by US type business schools and MBA education is towards the Liberal market economy. Nevertheless we see that CMEs continue and have weathered the financial crisis well.

Meanwhile there are underway fundamental changes in the architecture of the world economy; principally the rise of the developing world. The new developing economies are not following the LME pattern. They are more like the coordinated market economies. They have restrictions on capital movements and their financial sector is insulated to some extent from global capital market fluctuations. The emphasis is more on foreign direct investments (FDI) rather than portfolio investments. It is worth to mention that the surges in FDI towards these developing economies in recent times are mostly from developed nations. In other words, capital flow is from so called LMEs to CMEs which is little counterintuitive as per the proponents of efficient capital market hypothesis.

So the question is whether in the long run the dominant pattern all over the world will be the CME. Of course there will be differences in the CMEs. We have already noted that the European and East Asian models differ. In China the coordination is provided by the regional governments under the direction of the communist party. In India the coordination is provided by state institutions which are subject to political pressures. Dominance and stability of CMEs will have implications for the financial sector in the liberal market economies. Change will not come to the financial sector in countries like USA-UK until and unless the whole basis of coordination is changed. In other words till the LMEs become like CMEs. This is unlikely to happen. Instead the more likely scenario is that the entire LME

model will get bypassed in a world dominated by a variety of coordinated market economies and a new economic order will be established.

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