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Negative Agency Costs

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Abstract

Managerial opportunism is commonly considered as destructive for the parties involved in an agency relationship. Using a formulation close to Jensen and Meckling's equity model, we consider an agency relationship between a manager and an investor. The latter is assumed to benefit from a market power in terms of external funding opportunities. For high values of the prevailing rate of interest, we prove that the agency costs can be negative, either when the manager or the investor acts as the leader in the agency. These results suggest that external conditions may have a differentiated impact on the ex ante and ex post inefficiencies created by managerial opportunism.

keywords : corporate finance, agency cost, market power
JEL classification : G3

1 Introduction

The article by Jensen & Meckling (1976) belongs to the most cited papers in Finance. It is today a classical reference in all the textbooks as the seminal

contribution to the ownership and control issue which has become a central piece of governance theory. Its main contribution is to provide a microeconomic analysis of the agency costs generated by the existence of outside equity :

In most agency relationships, the principal and the agent will incur positive monitoring and bonding costs and in addition there will be some divergence between the agent's decisions and those decisions which would maximize the welfare of the principal. The dollar equivalent of the reduction of welfare experienced by the principal due to this divergence is also a cost of the agency relationship, and we refer to this as the residual cost. We define agency costs as the sum of (i) the monitoring expenditures by the principal (ii) the bonding expenditures by the agent (iii) the residual loss. (Jensen and Meckling, 1976, p.308)

Hence disregarding the monitoring and the bonding costs, the agency cost measures the loss in gains from trade (to all the parties) specifically due to the asymmetric information prevailing in an agency relationship.[1]. Of course this makes sense with respect to a first best arrangement where the managerial opportunism does not hold. To be conceptually consistent, this arrangement has also to take the form of a contract which becomes eligible to the parties if some institutional rules of transparency are met[2]. Of course, such a benchmark contract can also be refused by the parties who are both entitled to consider outside opportunities. Then measuring agency costs amounts to compare two types of contracts, each of them being associated with outside opportunities. These outside opportunities are related to external market conditions that determine the agency costs and, in some cases, may lead to negative values. Examining the circumstances where this occurs is the subject of the paper.

Using a formulation close to the equity model by Jensen and Meckling, we consider an entrepreneur (or a manager, "she") who raises equity funds from an outside investor ("he") to undertake a fixed investment I. Managerial op-

[1] Asymmetric information is conceptually related to the timing of decisions of the parties, as the contract is set before the agent takes actions. Uncertainty does not matter per se: the model of Jensen and Meckling is deterministic.

[2] Empirical studies devoted to agency costs evaluation use corporations where the manager is the sole shareholder to build a zero agency cost benchmark cf. e.g. Ang, et al., 2000.

portunism is interpreted here in terms of accountability. If the manager is accountable for the expenses and gains he makes in the name of the corporation, the agency problem does not arise. If the manager is not accountable, she is allowed te free ride ; the agency costs are evaluated by difference of payoffs between these situations.

The key ingredient of our approach is that the investor benefits from outside lending opportunities at a free risk rate $r \geq 0$. This actually reflects the market power the investor enjoys on the financial market, as an intermediary or a bank. Thus we depart from the standard point of view adopted in governance theory where the financial market is systematically assumed to be competitive (cf. Tirole, 2006). We will show that, for high values of the interest rate, the agency costs may be negative. This means that the agency inefficiency is mitigated when the financial market becomes very attractive.

The paper is organized as follows : the first section is devoted to the presentation of the model. Two types of arrangements are considered according to whether the investor (section 3) of the manager (section 4) gets the leadership in the contract setting. Concluding remarks are given in section 5.

2 Presentation of the model

On a given period of time, the investment I to be undertaken under the responsibility of the manager yields a net profit R. The contract to be signed beforehand stipulates the amount K the investor will spend to acquire $(1-\alpha)\%$ of equity share, where $\alpha \in [0,1[$ is fixed. Let us denote D the dividend to be distributed. The manager benefits from two types of returns: the (official) income V and the pecuniary benefits (or perquisites) F encompassing, for instance, travel expenditures and other private activities. The trade-off between them is given by the utility $U(V,F)$, where function U is an increasing function of each argument, $\partial U/\partial V > 0, \partial U/\partial F > 0$.

In our agency setting, the contract takes the form of a game, where one of the parties makes a take-it-or-leave-it offer to the other one. In this context the design of the contract depends on: (i) the allocation of the first mover advantage between the parties, (ii) the utility/payoff gained by the parties relatively to the outside opportunities available to them, (iii) the manager

accountability. Let us examine how combining these elements determines the various options to be considered.

1. The leadership - or first mover advantage - may be attributed to the investor or the manager. The party who acts as the leader benefits from a market power which determines the outcomes of the contract.

2. The contract may be signed or not (i) If the contract is not signed, the investor does not invest in the firm's capital and switches to privileged lending opportunities on the financial market at a risk free rate r, that are not accessible to the manager. The manager remains a 100% owner of the firm; in the absence of contract, the project I collapses and the firm is reduced to its baseline activity, with a profit equal to $R - \delta$, where $\delta \geq 0$ accounts for the added value of the contract, namely the specific contribution of the project I to the value of the firm. The utility reservation of the manager is the utility level she enjoys when the contract is not signed, defined here as $U_0 = U(V_0, F_0)$ where $(V_0, F_0) = \arg\max(U(V, F)$, s.t. $V + F = R - \delta)$. is solution of :

$$\begin{cases} V + F = R - \delta, \\ \partial U/\partial F = \partial U/\partial V. \end{cases} \tag{1}$$

   (ii) If the contract is signed, the firm's profit R is boosted through the added value δ, the manager who receives K and keeps α% of the share, enjoying an utility level $U(V, F)$. Through the contract the investor who spends K yields a margin $M = [(1 - \alpha)D - K]$ and a surplus $G = [(1 - \alpha)D - K] - rK$, where the cost of capital is deduced [3].

3. In agency theory, the opportunism of the agent comes from the non observability of effort. The lack of effort induces a loss of profit, assimilated here to perquisites. Hence in our context, observability of effort means manager accountability for her perquisites. Accordingly the agency costs have to be defined by measuring the impact of accountability on the payoffs both parties ; then two types of arrangements have

[3] G can also be considered as the *net profit* of the investor if the capital K is borrowed at rate r. Hence rK can be equivalently interpreted as the actual or the opportunity cost of the capital.

leadership: ↓	Non accountable	Accountable
Investor	A	B
Manager	C	D

Table 1: The 4 arrangements

to be compared: (i) *When the manager is accountable*, the perquisites are considered as private expenses that do not alter the dividend, i.e. $D = R$, and the perquisites are directly deduced from her income, so that $V = \alpha R + K - F$ (ii) *When the manager is not accountable*, she is allowed to incorporate the perquisites in the operating cost of the firm so that the dividend is reduced to $D = R - F$ and her income is $V = \alpha D + K = \alpha(R - F) + K$. in this case, the manager acts as a free rider as she enjoys a perquisites level F while paying only αF.

As a result, four arrangements have to be considered, as summarized in table 1.

3 Investor leadership

In this case, the investor acts as the principal in charge of offering the amount K he is willing to spend to acquire $(1 - \alpha)\,\%$ of shares. The manager acts as the agent ; he has to react to this offer. The problem can be stated as a three stage game where the payoffs depend on the manager accountability for the perquisites. Let us examine firstly the accountable case.

3.1 Arrangement A : Investor leadership with manager accountability

When the manager is accountable for the perquisites, the gain of the investor is $G = (1 - \alpha)R - (1 + r)K$, which does not depend on F. This arrangement yields the first best solution of the agency problem. Arrangement A deals with the following sequential game :

- In stage 1, the investor proposes to buy the $(1 - \alpha)$ shares for K .

- In stage 2, the manager accepts or refuses the proposal.
- In stage 3,
  - In case of refusal, the manager keeps 100% of share and the profit incurs a loss δ, leading to utility level $U_0 = U(V_0, F_0)$.
  - In case of acceptance, the manager chooses her mix of benefits (V, F) under the constraint:

$$V + F = \alpha R + K. \tag{2}$$

Let us determine the subgame perfect Nash equilibrium of the game via backward induction. In stage 3, the manager's program is:

$$\begin{cases} \max_{V,F} U(V, F) \\ \text{s.t.} \quad (2). \end{cases} \tag{3}$$

The first-order condition is :

$$\partial U/\partial F = \partial U/\partial V. \tag{4}$$

In stage 2, the manager accepts the deal if her utility is higher or equal to what she get in case of refusal, namely :

$$U(V, F) \geq U_0. \tag{5}$$

Then, formally the investor's program in stage 1 leading the manager to accept the deal is the following principal-agent problem :

$$\begin{cases} \max_{F,V,K} G \\ \text{s.t (2), (4) and (5).} \end{cases} \tag{6}$$

where (4) and (5) are the incentive compatibility and the participation constraints of the manager. In the following we will assume that

$$\alpha R \leq (R - \delta), \tag{7}$$

so that the manager would prefer to refuse the contract if the investor brings no fund. The following proposition yields the equilibrium solution of this agency problem.

Proposition 1 *When the manager is accountable, she gets the outside opportunity utility level U_0. The equilibrium mix of benefits coincides with the outside opportunity mix (V_0, F_0) and the investor pays $K_0 = (R-\delta)-\alpha R \geq 0$, to get $(1-\alpha)$ share. The margin of the investor M_0 is equal to δ and his profit is $G_0 = \delta - rK_0$.*

Proof. Using (2), the gain of the investor may be written $G = (1+\alpha r)R - (1+r)(F+V)$. Then program (6) amounts to minimize a positive linear combination of V and F; accordingly, constraint (5) is binding and the optimum mix (V, F) is solution of: the system :

$$\begin{aligned} U(V,F) &= U_0, \\ \partial U/\partial F &= \partial U/\partial V. \end{aligned}$$

Since function U is concave, the iso-utility curve $U(V,F) = U_0$ is convex in the plane $\{V, F\}$, so that the pair (V_0, F_0) is the unique point where the slope of the tangency is equal to -1. The investment K is determined by (2). It is positive thanks to (7). Hence the result. ■

According to (7), the contract induces a potential loss of dividend $(R-\delta)-\alpha R \geq 0$ to the manager. In equilibrium the contribution of the investor exactly compensates this loss; the investor captures all the added value δ created in the project while the manager does not change her mix of benefits.

3.2 Arrangement B : Investor leadership without manager accountability

In this arrangement, the perquisites F spent by the manager for her private use are added to the reported costs of the company, so that the distributed dividend is actually $R-F$; then the gain of the investor is $G = (1-\alpha)(R-F) - (1+r)K$ and the budgeting constraint is now:

$$V + F = \alpha R + K. \tag{8}$$

This changes only the payoffs in the previous sequential game. Now the first order condition holding at stage 3 is $\partial U/\partial F = \alpha \partial U/\partial V$, and the investor's stage 1 program (6) is formulated in a similar way.

Proposition 2 *When the manager is not accountable, she gets still the outside opportunity utility level U_0. Both the investment and the margin of the investor are lower than in the accountable case..*

Proof. Using similar arguments as in proposition (1), the equilibrium mix of benefits of the manager is (V_1, F_1) is solution of

$$\begin{aligned} U(V,F) &= U_0, \\ \partial U/\partial F &= \alpha \partial U/\partial V. \end{aligned}$$

Since function U is concave, the iso-utility curve $U(V,F) = U_0$ defines a convex curve $V = f(F)$. We have $V_0 = f(F_0)$, with $f'(F_0) = -1$ and $V_1 = f(F_1)$, with $f'(F_1) = -\alpha$. Hence $F_1 \geq F_0$, since the derivative f' is increasing, and $V_1 \leq V_0$. In addition the convexity implies that the curve $V = f(F)$ is above the tangency at point F_0 and the tangency at point F_1. This implies the following inequalities :

$$V_1 + F_1 \geq R - \delta \geq V_1 + \alpha F_1 \tag{9}$$

Thanks to (9), the investment $K_1 = V_1 - \alpha (R - F_1)$ is lower than K_0; in addition, we have $M_1 = (1-\alpha)(R - F_1) - K_1 = R - F_1 - V_1$ which is, by (9), lower than $M_0 = \delta$. ■

3.3 Comments

Under the non accountability arrangement, as expected, the manager selects a mix of benefits more favorable to the perquisites since she actually pays only $\alpha\%$ of them: the inequality $F_1 > F_0$ captures the ex post inefficiency effect as it implies a dissipation of the margin of the investor, who only gets a part of the added value δ in the contract since $M_1 < M_0 = \delta$. This leads in turn to ex ante inefficiency as the investor invests less ($K_1 < K_0$) since strategically he expects the opportunistic behavior of the manager.

The solution is represented on figure (1) where the various solutions are depicted in the plane $\{V, F\}$

In the accountable case, the equilibrium point is the point $Z = (V_0, F_0)$ where, by construction, the isoutility curve $U(V,F) = U_0$ is tangent to the

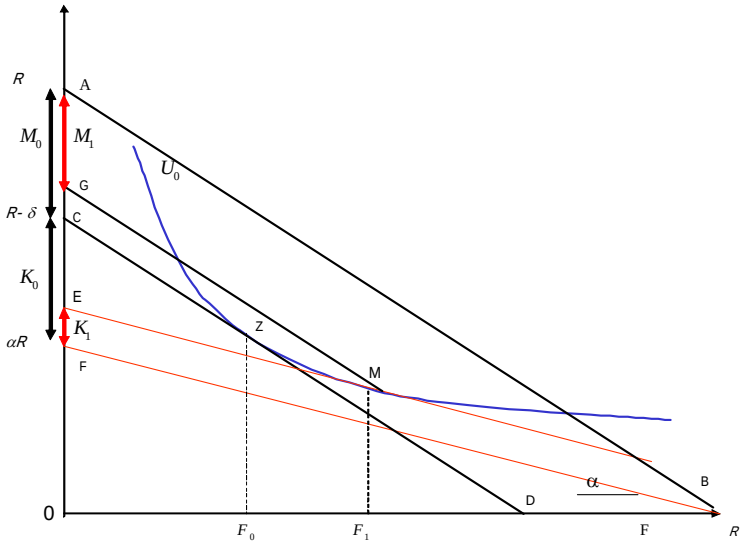

Figure 1: Investor leadership

line CD of equation $V + F = R - \delta$. Segment BA is the line of equation $V + \alpha F = \alpha R$ and the investment K_0 is measured by AD; segment AC measures the margin M_0 gained by the investor. In the non accountable case, the equilibrium point is $M = (V_1, F_1)$.

In this context the agency cost covers the impact on accountability on the payoffs of both parties. Since the utility of the manager is kept at level U_0, this amounts to compare the profits to the investor $G_0 = M_0 - rK_0$ and $G_1 = M_1 - rK_1$. Hence the agency cost reduces to $G_0 - G_1$, which can be interpreted here as the cost of accountability.

When $r = 0$, the conventional result is found[4], saying that the opportunistic behavior of the manager is detrimental to the investor, who incurs an agency cost equal to $M_0 - M_1 > 0$. But this result may no longer hold for strictly positive values of the interest rate, since the cost of capital rK is lower in the non accountable case and then differently affects the surplus of the investor under both arrangements.

Let $r^* = (M_0 - M_1)/(K_0 - K_1)$ be the break even rate clearly (i) for $r < r^*$,the agency cost is positive and accountability is worthy (ii) for

[4].It is worth mentioning that M_0, M_1, K_0 and K_1 do not depend on the interest rate r

$r \geq r^*$,the agency cost is negative.[5]. Then for high values of the interest rate, the manager accountability is worthless for the investor since it implies a higher level of investment and then a higher capital cost which reduces the gain of the investor.

3.4 Illustrative example

Let us consider the case where the utility of the manager is $U = VF$. Straightforward computations indicate that $F_0 = V_0 = (R - \delta)/2$ and $F_1 = \frac{1}{2\sqrt{\alpha}}(R - \delta)$, $V_1 = \frac{\sqrt{\alpha}}{2}(R - \delta)$. Hence we have $K_0 = (1 - \alpha)R - \delta$, $K_1 = \sqrt{\alpha}\left((1 - \sqrt{\alpha})R - \delta\right)$ $M_0 = \delta, M_1 = \frac{1}{2}\dfrac{2R\sqrt{\alpha} - (1 + \alpha)(R - \delta)}{\sqrt{\alpha}}$.

In this case, the break even rate is $r^* = \dfrac{1 - \sqrt{\alpha}}{2\sqrt{\alpha}}$. For instance, with $R = 50, \delta = 5, \alpha = 0,8$ we have $r^* = 5,9\%$. As a matter of fact, for $r = 7\%$, we have $G_0 = 1,5 \leq G_1 = 4,54$ and $K_0 = 5$, $K_1 = 0,25$ and the investor is better off in the non accountable case.

4 Manager leadership

Let us turn now to the case where the manager acts as the leader: she is now in charge of making an offer K to the investor against $(1 - \alpha)$ share of the equity.

4.1 Arrangement C : Manager leadership and accountability

As in arrangement A, the gain of the investor is $G = (1 - \alpha)R - (1 + r)K$. The arrangement C is represented by the following game :

- In stage 1, the manager proposes to sell the $(1 - \alpha)$ shares for K .

[5]Let $r_1 = (1 - \alpha)(R - F_1)/K_1 - 1 = \frac{(1-\alpha)(R-F_1)}{V_1 - \alpha(R-F_1)} - 1 = \frac{R - F_1 - V_1}{V_1 - (\alpha R - \alpha F_1)}$ and $r_0 = (1 - \alpha)R/K_0 - 1 = \frac{\delta}{(1-\alpha)R-\delta} =$, be the internal rates of return associated with the gains G_1 and G_0 respectively. Thanks to (9), for $\alpha < 1$, we have $0 < r^* < r_0 < r_1$. Then the gains of the investor under both arrangements are positive for interest rate values close to $r*$

- In stage 2, the investor accepts or refuses the deal,.
- In stage 3: in case of refusal, the investor gets a gain (surplus) equal to zero. In case of acceptance, the manager chooses her mix of benefits (V, F) under the constraint:

$$V + F = \alpha R + K, \tag{10}$$

Solving the game by backward induction leads, at stage 3, to a manager program still given by (3) ; the first order condition is again (4). In stage 2, the investor will accept the deal if he gets a positive surplus, namely :

$$(1 - \alpha)R - (1 + r)K \geq 0. \tag{11}$$

In case the investor rejects her offer, the manager does not undertake the project I and, as previously, keeps 100% of the equity with a rebate of the value δ. Formally the manager's program in stage 1 is of the form :

$$\begin{cases} \max_{F,V,K} U(V, F), \\ \text{s.t (10), (4) and (11).} \end{cases} \tag{12}$$

It can be checked that, under the concavity of utility function U, the investors' participation constraint (11) is binding at the optimum so that:

$$(1 - \alpha)R = K(1 + r), \tag{13}$$

Eliminating K in (13) and (10) we deduce :

$$V + F = \left(\frac{1 + \alpha r}{1 + r}\right) R \tag{14}$$

The equilibrium point $\left(\tilde{V}, \tilde{F}\right)$ is solution of the system {(14),(4), or, equivalently, solution of the program :

$$\begin{cases} \max_{F,V,} U(V, F), \\ \text{s.t (14).} \end{cases} \tag{15}$$

And the investor spends $\tilde{K} = (1-\alpha)R/(1+r)$ to acquire $(1-\alpha)$share of equity.

This model does not resort to the standard principal-agent model, as the manager is both the first mover and the last mover player of the game. Conditions (4), (11) can be interpreted respectively as the *incentive-compatibility* and the *participation constraint* of this agency problem. But here, the participation constraint is related to the investor and the incentive-compatibility constraint to the manager.

4.2 Arrangement D: Manager leadership without accountability

The non accountable case leads here to a game defined by replacing constraints (2) and (13) respectively by $V+F = \alpha(R-F)+K$ and $(1-\alpha)(R-F)-K(1+r)=0$. The equilibrium is (V', F') solution of the system

$$\begin{cases} \partial U/\partial F = \alpha \partial U/\partial V, \\ V = \left(\dfrac{1+\alpha r}{1+r}\right)(R-F), \end{cases} \tag{16}$$

and the investor pays $K' = (1-\alpha)(R-F')/(1+r)$.

On figure (2) which replicates figure (1) when the manager is the leader, the accountable equilibrium corresponds to the point Ω_r located on the line of equation $V = \left(\dfrac{1+\alpha r}{1+r}\right)(R-F)$,and the accountable to the point Φ_r which lies on the line of equation $V+F = \left(\dfrac{1+\alpha r}{1+r}\right)R$.

Accountability does not matter for the investor since his gain is zero under both arrangements. The agency cost reduces to the utility variation $\Big[U(\tilde{V},\tilde{F}) - U(V',F')\Big]$.

4.3 Comments

When the interest rate r is equal to 0, the Jensen-Meckling equity solution is found[6]. In terms of utility, the accountable case coincides with the first best

[6]Then the Nash equilibrium conditions given here are an analytical substitute to the two-page and essentially graphical proof of Jensen and Meckling (p.317-319)

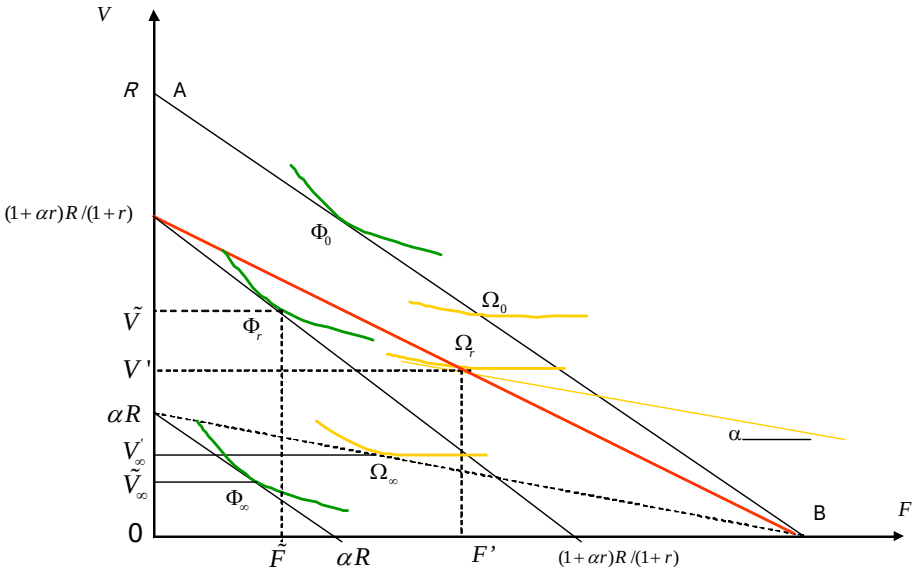

Figure 2: Manager leadership

solution, where the manager is able to develop the project keeping 100% of the equity. In this case, (14) et (16) yields $\tilde{V} + \tilde{F} = V' + F' = R$, so that the equilibrium points Ω_0 et Φ_0 are located on the segment AB: the accountable equilibrium point $(\tilde{V}, \tilde{F})$ corresponds to the greatest value of utility U on this segment, then $U(\tilde{V}, \tilde{F}) > U(V', F')$. The lack of accountability increases the perquisites ($\tilde{F} \leq F'$) and induces a loss of utility : in turn, this ex post inefficiency reduces the amount the investor is ready to pay to get equity; this is the source of ex ante inefficiency that makes the manager worse and generates a positive agency cost.

But this result may no longer hold when the interest rate is high.

Proposition 3 *When the manager is the leader, there exists an interest rate value r^{**}, such that for any $r \geq r^{**}$, she is better off in the non accountable than in the accountable case, and the agency cost is negative.*

Proof. When $r \to \infty$, the accountable solution $(\tilde{V}_\infty, \tilde{F}_\infty)$ satisfies the relation $V + F = \alpha R$. Clearly, when $r \to \infty$, relations (16) sound as the first

order conditions (which are also sufficient) of the program:

$$\begin{cases} \max U(V,F) \\ V + \alpha F = \alpha R, \end{cases} \tag{17}$$

the solution of which is the non accountable point (V'_∞, F'_∞). Since utility function U is strictly concave, the solutions of the program (17) is unchanged when the equality constraint is replaced by the inequality $V + \alpha F \leq \alpha R$. Clearly, $V + F = \alpha R$ implies $V + \alpha F \leq \alpha R$. Hence the accountable point $(\tilde{V}_\infty, \tilde{F}_\infty)$ belongs to the interior of the feasible set of the modified program (17); it is dominated by the optimum (V'_∞, F'_∞). As a result, $U(\tilde{V}_\infty, \tilde{F}_\infty) < U(V'_\infty, F'_\infty)$. Consequently, since the opposite inequality holds for $r = 0$, there exists an intermediate value of the interest rate, r^{**} such that, for any $r \geq r^{**}$, the agency cost is negative. ■

The higher is r, the less the ex ante inefficiency works: for high values of r, the outside lending opportunities are more attractive and the involvement of the investor in the equity decreases, so that the manager may act more independently from the investor: Hence the manager is better off under the non accountable arrangement. A contrario, when the rate r is low, the investor is more influential on the manager who is thus penalized in the non accountable case.

Remark 4 *It may happen that the manager would be better off by not letting the investor entering the capital of the firm. This can be considered by introducing a stage 0 in the sequential game, where the manager has to decide whether he makes or nor an offer. She will make no offer if the utility gained through the deal is lower than* U_0.

If, as in arrangements A and B, we assume that condition (7) already holds, then the deal is not proposed for $r = \infty$. *In this situation, there exists a threshold value* $\bar{r}$ *above which the manager prefers to stay alone. Hence the negative agency cost configurations may occur only when* $r^{**} \leq \bar{r}$.

If the condition (7) is not met, an offer is always made by the manager and then the agency cost is negative for any $r \geq r^{**}$.

4.4 Illustrative example

Let us illustrate the results on the previous example, with $U(V,F) = VF$. We have $\hat{V} = \hat{F} = R\left(\frac{1+\alpha r}{2(1+r)}\right)$ and $V' = \alpha R\frac{1+\alpha r}{\alpha+2\alpha r+1}, F' = R\frac{1+\alpha r}{\alpha+2\alpha r+1}$: Equating $U(\hat{V},\hat{F})$ and $U(V',F')$ leads to $r^{**} = \dfrac{1-\sqrt{\alpha}}{2\sqrt{\alpha}}$, which coincides here with the break even rate r^* in the investor first mover case (but this is due to the multiplicative form of utility). For instance, with $R = 50, \delta = 5, \alpha = 0.8$ we have $r^{**} = 5,9\%$. As a matter of fact, for $r = 0.07 = 7\%$, we have $\hat{V} = \hat{F} = 24.67, V' = 22.09,\ F' = 27.61$. In terms of utility, we get $U_0 = 506.25 < U(\hat{V},\hat{F}) = 608,61 < U(V',F')$. The manager is better off in the non accountable case and she does make the offer.

5 Conclusion

Agency cost is a key concept of organization theory as it reveals the existence of inefficiencies operating within agency relationships, which have to be reduced by incentives schemes designed to align the interests of the parties involved in the organization. This concept is a central piece of corporate finance since the contribution of Jensen & Meckling which is considered now as the cornerstone of the dominant doctrine prevailing in business on executive compensation. This relies upon the widely shared idea that agency cost is truly a loss, namely it cannot be negative, in other words that managerial opportunism is detrimental for the organization. There is no formal evidence on this point, as we prove in this paper. Negative agency costs may occur when the outside finance providers have profitable alternative funding opportunities. This result suggests that market pressures may affect the outputs of the organization and lead to some arrangements less favorable than others in terms of efficiency. A similar idea emerges in channel distribution literature (cf. Greenhut and Ohta, 1979, Thépot and Netzer, 2008) where oligopoly competition between channels on the final market may make vertical integration less profitable, contrary to what happens in the monopoly case. This indicates, once again, that external pressures on the organization may contribute to the efficiency.

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