

MULTINATIONAL FIRMS: EASY COME, EASY GO?

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Abstract:

Although many countries welcome inward investments by multinational firms (MNEs), it is often perceived that MNEs readily close down production in bad times. We study the choice of an MNE in deciding where to establish a branch plant within a region, explicitly taking into account national differences in entry and exit costs. Protecting workers by having strict lay-off rules can lead the firm to invest elsewhere. We examine whether firms in a highly uncertain market choose a different location from those in a more stable market. How does the ease of exit influence the entry decision?

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1. INTRODUCTION

When comparisons are made about different countries' relative abilities to attract inward investment from multinational enterprises (MNEs), it is often argued that firms prefer to establish operations in countries with less regulated markets (particularly the labour market). The premise is that the firm will have more freedom to adjust to prevailing economic conditions in such locations. There is the implicit acknowledgement that the firm may not choose to maintain a particular level of production indefinitely and takes into account the costs of downsizing or closing its branch plant entirely.

It is frequently claimed that the relative success of the United Kingdom in attracting overseas investment, relative to their continental partners in the EU, can partly be explained by its less regulated labour market that permits the firm to adjust its employment level more easily than in could were its operations based in another of the large European nations. Thus firms concern themselves not only with entry costs and relative productivity levels but also with the potential costs of downsizing and closure. Britain, by making it easier to layoff workers, becomes more attractive to MNE which will find it easier to both “come” and “go” from a location in the UK.

However, these conjectures have seldom received much attention in formal analysis. Instead, most of the literature on attracting investment from foreign MNEs has focused on lowering the firm's costs of establishment or its production costs, largely ignoring the ease with which the MNE might close down their production facilities. This paper re-examines the MNE's investment decision with an explicit consideration of the likelihood of future closure of the production facilities. We compare the relative merits of locations when the firm expects its branch plant to be around for a long time and when the MNE is in an industry characterized by a great deal of uncertainty. In this setting we consider the policy

instruments that governments might use to make their countries the more attractive locations. We focus on two that seem of particular relevance.

The first is related to the labour market flexibility of a host country. A firm, in making its location decision in an uncertain economic climate, will look not only at the costs of training and employing its workers but also at the financial implications of firing them, should economic conditions worsen. Thus the rules on severance pay must be taken into account. Thus a low-wage location might have low production costs, but this benefit may be offset by the requirement that former employees receive high redundancy settlements. Clearly the likelihood of failure is a crucial consideration.

The second element is a development subsidy offered to the firm to offset some of the fixed costs that it faces in initially establishing the branch plant. These frequently take the form of provision of land at subsidized prices, the offer of already built premises, assistance with the training costs of personnel, or cost-sharing in building new facilities. What seems to be important to us is not just the size of the subsidy but the conditions attached to it. Clearly a firm receiving financial assistance and then choosing not to invest would be expected to return the funds. But what of a firm that closes down shortly after starting production? How might being required to repay some of the subsidy affect its perception of the attractiveness of the investment location?

We suggest a simple way of modelling these issues in the next section. In section 3 we examine the impact of varying the policies of the potential host country on the incentives for MNE investment. We then consider, in section 4, how industry-specific uncertainty will make some production locations more attractive than others.

Before going further, it is perhaps worthwhile addressing what makes the firm in question a multinational enterprise. The policy experiments that we conduct are to attract inward investment from a foreign firm that is prepared to invest in the most attractive

location. The host government brings benefit to its citizens through the increased employment opportunities, less any subsidies that are paid to the foreign firm. Thus, unlike its dealings with a domestic firm, the government is not concerned with the wellbeing (profits) of the MNE. The MNE, for its part, considers the relative merits of locating in different countries and chooses that which maximizes its objectives.

2. THE MODEL

We focus on an integrated economic region comprising several countries and that there are no barriers to trade (tariffs or transport costs) between these countries. A multinational firm makes its decision as to the location of production. Production is characterized by increasing returns to scale. Consequently, the firm will choose to locate its production facilities in a single plant, from which it will serve the entire region. We assume that there are several countries in the region that are potential hosts for the MNE's investment.

Wherever it produces, the firm will face the same demand schedule for its good. The inverse demand curve is:

$$p = a - bx_i \quad (1)$$

where x_i is the output level of the firm located in country i and p is the price.

While the technology is the same irrespective of where production takes place, costs will depend on the location chosen by the firm. Suppose that the firm chooses to set up its production in country i . In each period of production, the firm must pay a fixed cost F_i and constant marginal cost, such that total costs are:

$$c_i = F_i + w_i \mathbf{b}x \quad (2)$$

where \mathbf{b} is the unit labour requirement and w_i is the wage rate. Total employment by the firm amounts to:

$$L_i = \mathbf{b}x_i \quad (3)$$

The firm faces initial costs of establishment and these may differ from country to country. In choosing one country over another, the firm foregoes the benefits that it would have enjoyed in the alternative location. Thus, it will choose to establish production facilities in country i only if the benefits of doing so exceed those it would achieve in the next-best location. We collapse into a single term both the direct initial costs of setting up in country i and the opportunity cost of not investing in the best alternative location. In addition, the national governments may provide financial assistance to offset some of these costs in the form of a subsidy. The net entry cost is then:

$$N_i = E_i - S_i \quad (4)$$

where E_i is the country-specific cost of establishment and S_i is the subsidy offered by the government of country i .

The firm faces an uncertain business climate. The demand for its product can change as a result of the introduction of new products. In addition, as technological advances are made, the firm's existing plant may become obsolete. In which case, it will face, once again, the choice of where to locate its (new, more advanced) production facilities. We model the uncertainty in an elementary fashion, assuming that a catastrophic shock may arise in a period with probability r . Such a shock is industry specific, due to changes in demand or technology, and consequently is independent of the location of the production facilities. The impact of such a shock is to force the firm to close down its production at its existing plant. The expected lifespan (planning horizon) of the plant is:

$$H = \frac{1-r}{r} \quad (5)$$

Should the firm be obliged to close down its factory, it will encounter some additional costs.¹ There are two principal, country-specific costs with doing this. Firstly, the firm will have to pay government-mandated severance pay r_i to its employees. The total redundancy bill I_i will depend on the size of the labour force:

$$I_i = r_i L_i \quad (6)$$

Secondly, if the financial support offered to the firm, in order to attract it, was in the form of a loan, the firm will be required to repay, in full or in part, these monies. Let the cost of closing down production be:

$$\mathbf{e}_i = Q(S_i) + r_i \mathbf{b} x_i \quad (7)$$

where $Q(S_i)$ is the amount of the loan to be repaid and r_i is the redundancy payment to each employee of the firm.

2.1 The myopic firm

If the firm were to focus only on its current productive activities, ignoring the possibility of future shutdown, then it will maximize current profits. Profits in each period are:

$$\mathbf{p}_i = p x_i - c_i \quad (8)$$

Substituting (1) and (2) into (8), differentiating and solving yields the equilibrium quantity, employment, and profits for the myopic firm:

¹ We assume that the decision whether to remain in operation or to close down is independent of the costs of shutting down production.

$$\begin{aligned}
x_i^m &= \frac{a - \mathbf{b}w_i}{2b} \\
L_i^m &= \frac{\mathbf{b}(a - \mathbf{b}w_i)}{2b} \\
\mathbf{p}_i^m &= \frac{(a - \mathbf{b}w_i)^2}{4b} - F_i
\end{aligned} \tag{9}$$

2.2 *The prescient firm*

Instead of its concern with current profits, the firm is now assumed to take into account the possibility that its market might collapse at some point, requiring a closing down of the manufacturing facilities. The firm is assumed to discount the future at rate $\mathbf{d} \leq 1$.

The probability in any period that the market remains strong is $(1 - \mathbf{r})$. Thus the expected present value of the future stream of profits is:

$$\mathbf{P}_i = \frac{(1 - \mathbf{r})\mathbf{p}_i}{1 - \mathbf{d}(1 - \mathbf{r})} \tag{10}$$

But there is also the probability that the firm will fail at some point in the future. In that circumstance, the firm will face exit costs including redundancy payments. If the firm fails in the first period, before actually having employed any workers, then it will have nothing to pay. Taking this into account, the expected present value of these payments is:

$$\mathbf{L}_i = \frac{\mathbf{d}\mathbf{r}(1 - \mathbf{r})\mathbf{l}_i}{1 - \mathbf{d}(1 - \mathbf{r})} \tag{11}$$

In deciding upon the optimal level of production (and employment) the firm will maximize the expected present value of its net operating profits, that is, the expected present value of profits less the expected present value of closure:

$$\mathbf{W}_i = \mathbf{P}_i - \mathbf{L}_i \tag{12}$$

Substituting (1), (2), (3), (6), (8), (10), and (11) into (12) yields the equilibrium quantity, employment, and profits for the prescient firm:

$$\begin{aligned}
 x_i &= \frac{a - \mathbf{b}(w_i + \mathbf{d}r r_i)}{2b} \\
 L_i &= \mathbf{b} \frac{a - \mathbf{b}(w_i + \mathbf{d}r r_i)}{2b} \\
 \mathbf{p}_i &= \frac{(a - \mathbf{b}w_i)^2 - (\mathbf{b}d r r_i)^2}{4b} - F_i
 \end{aligned} \tag{13}$$

The net present value in equilibrium is:

$$\mathbf{W}_i = \frac{(1 - r)}{4b[1 - d(1 - r)]} \left\{ [a - \mathbf{b}(w_i + \mathbf{d}r r_i)]^2 - 4bF_i \right\} \tag{14}$$

When we compare the activity levels under foresight with those of myopia, we find from (9) and (13), that:

$$\begin{aligned}
 x_i &= x_i^m - \frac{\mathbf{b}d r r_i}{2b} \\
 L_i &= L_i^m - \frac{\mathbf{b}^2 d r r_i}{2b} \\
 \mathbf{p}_i &= \mathbf{p}_i^m - \frac{(\mathbf{b}d r r_i)^2}{4b}
 \end{aligned} \tag{15}$$

Thus output, profits, and employment will all be lower when the firm takes into account the redundancy payments that will eventually have to be paid.

2.3 *The entry decision*

In choosing whether or not to establish its production facilities in a country, the firm considers both the expected present value of its net operating profits and any extra costs of establishment and closure. The net cost of entry is given by (4).

If and when the market collapses and the firm shuts down its operations in country i , it faces a closure cost of Q_i , in addition to the required redundancy payments. The expected present value of this is:

$$Q_i = \frac{rQ_i}{1-d(1-r)} \quad (16)$$

Taking into account all of these benefits and costs of locating and producing in country i (combining (4), (14), and (16)), yields an expected present value of the return to multinational investment in this location:

$$R_i = \frac{(1-r)[a-b(w_i+dr_i)]^2}{4b[1-d(1-r)]} - \frac{(1-r)F_i + rQ_i}{1-d(1-r)} - (E_i - S_i) \quad (17)$$

Suppose now that Q_i is related to S_i . If they are unrelated, then S_i is a grant from the government. However, the government can make it a condition of the subsidy that it be repayable, in full or in part, should the firm cease operations in the country. We model this in a simple fashion. If the market collapses prior to any production then S_i must be returned to the host government in full. In each subsequent year, the repayment Q_i is discounted from the nominal value of S_i by s_i . If $s_i=1$, then S_i takes the form of an interest-free loan, repayable on closure. If $s_i < 1$, then the nominal value of S_i is declining and becomes increasingly a subsidy (becoming a grant when $s_i=0$). At the other extreme, if $S_i=1/d$, S_i has become a loan with interest payments corresponding to the firm's rate of time preference. Rewriting (17), gives us:²

² It should be noted that (17) and (18) differ from one another *even when the subsidy is given as a grant*. This is because we assume in the case of (18) that the grant does have to be repaid if the firm does not operate in the first period.

$$R_i = \frac{(1-r)[a-b(w_i+dr_i)]^2}{4b[1-d(1-r)]} - \frac{(1-r)F_i}{1-d(1-r)} + \frac{(1-r)(1-ds_i)S_i}{1-d(1-r)s_i} - E_i \quad (18)$$

3. THE POLICIES OF THE HOST GOVERNMENT

In order to attract the MNE, the putative host can offer inducements to the firm. At the same time, domestic legislation will influence the investment decision. We shall look at two issues independently, starting initially with layoff policy and then considering the nature of subsidies offered to the incoming firm.

3.1 Severance agreements

In the model that we described in the previous section of this paper, firms will choose a particular level of employment of workers whenever they are in production. Should there be a downturn in the market, the firm will then cease all production activities at the branch plant, and will fire all of the workforce. The firm will be bound to giving their former workers compensation at a level established by the host government. We now consider how the government might use the level of redundancy payment as a policy instrument.

In order to make a clear separation between this question and the issue of repayment of government subsidies, we assume that any money received takes the form of a grant with no repayment, irrespective of the survival period of the firm. Indeed, for additional clarity, we assume that the only exit costs for the firm are the redundancy payments and that $s_i = 0$.

This allows us to rewrite (18) in considering the investment decision of the MNE:

$$R_i = \frac{(1-r)[a-b(w_i+dr_i)]^2}{4b[1-d(1-r)]} - \frac{(1-r)F_i}{1-d(1-r)} - [E_i - (1-r)S_i] \quad (19)$$

When the government raises the sanctioned redundancy payments, the expected present value of the investment clearly deteriorates. Differentiating (18), yields:

$$\frac{\partial R_i}{\partial r_i} = -\frac{\mathbf{b}d\mathbf{r}(1-\mathbf{r})[a-\mathbf{b}(w_i+d\mathbf{r}r_i)]}{2b[1-d(1-\mathbf{r})]} < 0 \quad (20)$$

Not only do higher redundancy payments make an investment less appealing, even when a branch plant is established the activity level will be lower the higher are severance payments. This is because the firm, in its employment decision, take into account the future layoff costs for its workforce. We see this by differentiating the output and employment expressions in (13):

$$\begin{aligned} \frac{\partial x}{\partial r} &= -\frac{\mathbf{b}d\mathbf{r}}{2b} < 0 \\ \frac{\partial L}{\partial r} &= -\frac{\mathbf{b}^2d\mathbf{r}}{2b} < 0 \end{aligned} \quad (21)$$

We illustrate the relationship between various levels of r_i and the viability of the investment in Figure 1.³ Each line corresponds to a different \mathbf{r} , the probability of failure of the firm in each period. The higher the probability, the shorter the expected lifespan of the branch plant, and consequently the lower the expect benefit of the investment.

We therefore have a trade-off between the protection of workers in the future and both the likelihood of attracting the MNE investment and the scale of employment. A more confident future (low \mathbf{r}) reduces the threat of having to make redundancy payments, making any investment more rewarding (in expected value) and on a larger scale.

3.2 *Investment subsidies*

An inspection of (18) makes it clear that the level of S_i and the repayment conditions on it have no effect on the activity level of a firm should it decide to establish a branch plant. Their impact is purely on the decision of the MNE whether or not to invest in the host

country. We therefore focus on the role that the level S_i and the repayment conditions \mathbf{s}_i play in that decision. To this end, we rewrite (18) in order to isolate the benefits of the subsidy:

$$R_i = Y_i + S_i \quad (22)$$

where the net present value of the subsidy is:

$$S_i = \frac{(1-r)(1-d\mathbf{s}_i)S_i}{1-d(1-r)\mathbf{s}_i} \quad (23)$$

and Y_i amalgamates all of the other terms not involving the subsidy. Differentiating (22) shows that, *ceteris paribus*, a larger subsidy makes the investment more attractive to the MNE:

$$\frac{\partial R_i}{\partial S_i} = \frac{(1-r)(1-d\mathbf{s}_i)}{1-d(1-r)\mathbf{s}_i} > 0 \quad (24)$$

We now consider how the repayment conditions affect the value of the subsidy to the MNE. We consider four different “repayment schedules”. First, when $\mathbf{s} = 0$, the subsidy is a grant requiring no repayment. If $\mathbf{s} = 0.5$, the nominal value of the repayment declines by 50 percent each year. At $\mathbf{s} = 1$, the subsidy must be repaid in full nominal terms if and when the firm stops local production. When the government sets $\mathbf{s} > 1$, the subsidy becomes a loan at a positive real rate of interest.

In Figure 2, we illustrate the benefits of the subsidy relative to the firm's discount factor.⁴ When the firm totally discounts the future repayments, the expected value of the

³ In these numerical simulations we have adopted the following parameter values: $a = 10$, $b = 1$, $F_i = 10$, $E_i = 30$, $S_i = 20$, $w_i = 2$, and $d = 0.9$.

⁴ We set $r = 0.1$ in this example.

subsidy is $(1-r)S_i$, the monetary value of the subsidy discounted by the probability of collapse of the market prior to any production having taken place (necessitating the return of the subsidy). The larger is d , the more important is the future to the firm, making the eventual repayment of the subsidy more burdensome. When $s = 1/d$, the government subsidy is of no advantage to the firm, as it will eventually have to repay principal and interest exactly equal to the benefit from the original monetary award. The greater the proportion of the subsidy that has to be repaid on exit (that is, the larger is s_i), the smaller the appeal of the subsidy to the firm.

In Figure 3, we show the relationship between the expected lifespan of the branch plant, the repayment conditions, and the benefit to the firm. Irrespective of the likelihood of closure, a subsidy given at rate $s_i = 1/d$ is of no benefit to the firm as present value of the projected repayment equals the value of the initial award. Under other, more generous, terms the firm does gain from the subsidy. When $r=0$, the production facilities remain open indefinitely. As there is no expected future repayment, the firm gets the full benefit of the subsidy under any terms where $s_i < 1/d$. If, however, immediate failure is guaranteed ($r=1$), even the most favourable repayment terms cannot make the subsidy worthwhile. Between these extremes, we see that more favourable subsidy terms make investment more attractive.

4. INDUSTRY-SPECIFIC UNCERTAINTY AND MNE INVESTMENT

In the previous section we established that a more uncertain investment climate (that is, a higher probability of failure r) makes the subsidies offered by the host government less attractive, lowers the level of production of firms that do invest, and these effects together lower the likelihood of a firm choosing to establish a branch plant. In this section, we suggest that some industries may be “higher risk” than others and consider whether the

investment climate within a country might be more conducive to one type of industry than another.

Consider the benefits to the host country of having the investment. In this partial-equilibrium framework, they would equal the present value of the wage bill of workers employed by the MNE, less the present value of the subsidy paid out by the host government. We assume that the government discounts the future at the same rate as the MNE (d). We already have an expression of the cost of the subsidy, this being the negative of the benefit to the firm S_i which is shown in (23). The present value of the wage bill will aggregate the benefits to a worker of employment over the period of operation of the firm, plus the redundancy payments made when the branch plant closes down. This is multiplied by the employment level of the firm in (13). Let G_i be the present value of employment by the MNE, where:

$$G_i = \frac{b(1-r)(w+dr)(a-b(w+dr))}{2b[1-d(1-r)]} \quad (25)$$

Summing together (23) and (25) gives the benefit to the host country of the MNE's investment:

$$B_i = G_i - S_i \quad (26)$$

Figure 4 illustrates some representative loci for levels of r_i and S_i .⁵ We select $R_i = 0$ as the minimal combinations of redundancy payments and subsidy level that will leave the MNE indifferent to establishing the branch plant. Combinations of government policy with higher subsidy and lower severance payments will make the investment opportunity more attractive. We show three equal-benefit lines for the host country for levels of B_i equal to

⁵ In these numerical simulations we use the following parameter values: $d = 0.9$, $s = 0.5$, $r = 0.29$.

-0.5, -2.5, and -5.0. These loci are positively sloped in the range shown but flatter than the $R_i = 0$ locus. Thus the country benefits more from the entry of the MNE when the subsidy is lower and redundancy payments higher.

A standard optimization exercise (maximizing the benefit of entry to the MNE at a fixed level of benefit to the government) yields a first-order condition that

$$r_i = -w_i / \mathbf{dr} \quad (27)$$

If the government were to implement such a redundancy policy, it would be offering the firm a payment at closure that fully offsets the costs of employing the workers over the lifetime of the branch plant. This means that the firm will treat the marginal costs of production as zero and will, consequently, choose the highest level of production. This can be seen in Figure 4, where $B_i = -0.5$ is tangent to $R_i = 0$ at this level of (negative) redundancy payment.

Paying the firm when redundancies occur, rather than the firm compensating the fired workers, is not likely to be a politically achievable option, despite the inherent efficiency of the outcome. Instead, the severance payments will be non-negative and the host government will have to accept lower overall benefits from the MNE investment in order to make the firm still willing to enter. $B_i = -2.5$ intersects $R_i = 0$ at $r_i = 0$. This shows the required subsidy in a host that does not require redundancy payments. When the government chooses to mandate redundancy payments, a higher subsidy will be necessary to induce entry and, as the severance payments are further away from the optimal level, the investment is less beneficial to the host country.

This yields an interesting, though unsurprising, policy conclusion. If countries that are in competition for inward MNE investment are constrained from offering inducements in the form of subsidies, then the conditions of employment will become more important in determining which country will capture the firm. The easier it is for a firm to shut down

operations in terms of costs of layoffs, the more appealing that location will be to the MNE. We have already seen in Figure 1 that, for any given redundancy scheme, the benefits to the MNE of investment will diminish the higher the probability of closure. Thus, in a more uncertain investment climate, the host that requires least of the firm in terms of redundancy payments will be best placed to attract the investment.

Figure 5 examines the impact of increasing uncertainty on both MNE and host government. Loci are drawn for the firm showing combinations of subsidies and severance rates that make the firm indifferent to establishing a plant in the country (that is, $R_i = 0$) for three different values of r . Similarly, three loci are drawn for the host government where it is indifferent to having the firm locating domestically (that is, $B_i = 0$).

As industry uncertainty declines, the firm expects the plant to be in production for a longer period, making it more willing to enter at lower levels of subsidy or higher redundancy payments. Thus the R_i locus shifts down (or to the right). From the point of view of the host government, a longer expected lifespan for the plant extends the stream of workers' earnings, making the investment more attractive to the government, such that it would be prepared to offer a higher subsidy or reduce the mandated severance pay. Thus the B_i locus shifts up (or to the left).

Points A, B, and C show the subsidy/severance pairs that obtain when both MNE and host government are indifferent to the investment for r equal to 0.25, 0.20, and 0.15, respectively. The longer the plant is expected to survive, the higher the subsidy offered by the host government in exchange for commitments from the firm as to higher severance payments that it will offer workers laid off once the plant eventually closes down.

Consider countries, identical in every respect except that their mandated redundancy payments differ from each other. Each wishes to attract MNE investment. It is clear from Figure 5 that low-severance-pay nations can afford to offer an MNE a higher subsidy than

other countries. Thus when $r = 0.15$, a country with a redundancy pay set at level A can attract the firm by offering a more attractive subsidy than a country with the higher level C. For a firm in a more risky industry (say, $r = 0.25$), the country with redundancy rate C would not be prepared to offer the MNE a subsidy sufficiently large to attract the investment, while the potential host at point A can still attract the investment. Thus, the nation that makes plant closure easier can make it more attractive for the MNE to invest in the first place. The “Easy Come, Easy Go” host is therefore more attractive to all potential investors, but, in particular, can attract the riskier investments that other countries deter through their labour laws.

5. CONCLUSIONS

In this paper we focus on location decisions for a multinational enterprise with several possible locations for a plant to serve an integrated regional market. Applying a very simple model, we illustrate how various country and industry characteristics may affect the firm’s entry decision as well as the activity level and profits should the firm decide to locate in a specific host country. Previous studies [e.g., Fumagalli (1998), Haaland and Wooton (1999), Haufler and Wooton (1999), and Markusen and Venables (1999)] have focussed on potential gains for the host country should the MNE choose to establish production in the country, and on policy competition between various potential host countries. Although these models consider policies to attract foreign direct investments, they do so in static and deterministic frameworks using very simple policy measures. We study various policy instruments in a dynamic setting, where there is an industry-specific risk of failure. To make the model as simple as possible, we do not include externalities or spillovers that would create potential benefits for the host country. In principle there is no reason why such effects could not be included in our model. In this final section we will try to summarise and draw some policy conclusions from our analysis.

The policy instruments we study are of two types: i) required redundancy payments, and ii) initial subsidies to the MNE. The former may have to do with labour market flexibility in general in the country; the latter is directly aimed at attracting foreign direct investments. However, our analysis shows that both are important for the MNE's entry decision, and that there is a clear trade-off between labour-market inflexibility and the need for investment subsidies. Our analysis shows that redundancy payments not only affect a foreign firm's entry decision; should the firm choose to locate in the country, the activity and employment levels and the operating profit will also be negatively affected by strict redundancy rules. The more uncertain the future of the industry, the more severe will be the effects of such labour market rigidities. Hence, although the redundancy rules are there as safeguards for the workers, their consequence may well be less investment and lower employment levels during operation.

Investment support may be important to attract foreign firms, but it will not affect the operations once a plant is established. Depending on the support policies and possible repayment schemes, the subsidy elements of such policies have been analysed. One conclusion is that the more uncertain the industry is, the lower will the subsidy element be, as long as there is some repayment requirement should the plant close down.

In evaluating possible policy mixes, a number of interesting conclusions appear. Firstly, high redundancy payments work in the same way as high wage rates, discouraging investments and employment. Secondly, it would be optimal to have negative redundancy payments, to ensure high activity levels while in operation and reduce the need for direct subsidies. Given non-negative redundancy payments, the more uncertain the industry is, the higher is the cost, in terms of required investment subsidies, for the host country of a given redundancy scheme.

These conclusions indicate that there may be systematic effects from the chosen policy mix to the type of industries one may attract. The more important uncertainties about the future are, the more severe will be the effects of labour market inflexibility. A natural question is then the type of industry a country would like to attract. Everything else equal, one would expect that lower uncertainty would be preferred, such that the expected lifetime of an investment is longer. However, everything else is not necessarily equal. Much depends on the type of markets and the type of uncertainty we are looking at. In many cases risky projects are also more profitable should they succeed. A new industry could, for example, be such that there is a high risk of failure at the outset, but success would bring more profitability (due to higher demand) than traditional industries.

Hence, the choices we are discussing could also be between policies to attract new and modern industries versus traditional industries, with which have lower profitability but also lower risk of failure. In such a setting, what we show is that labour-market flexibility is important to attract the modern firms. Such flexibility may, to some extent, offset high wages and may also reduce the subsidy required to attract the firms.

We have so far only touched on policy competition in this setting. There is, however, good reason to believe that countries will compete for the most attractive investments. As we have shown, in this competition both the labour-market institutions and the direct subsidy schemes will be important, with the industry uncertainty playing an important role. The outcome of the policy competition is the same across all industries, in that the “Easy Come, Easy Go” host is more attractive to all potential investors. Of particular interest is that the country with lower severance rates can attract the riskier investments that other countries deter through their labour laws. We plan to investigate this further in future research.

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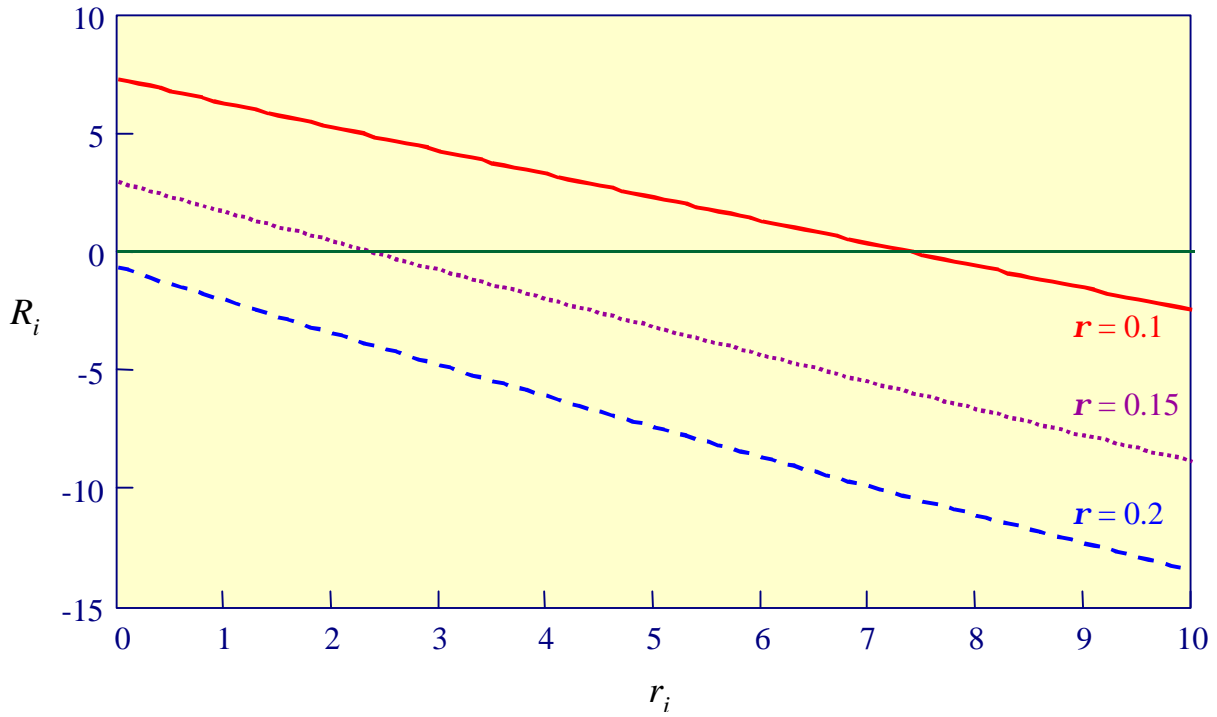


Figure 1. Level of redundancy payments and the benefits to the MNE of entry

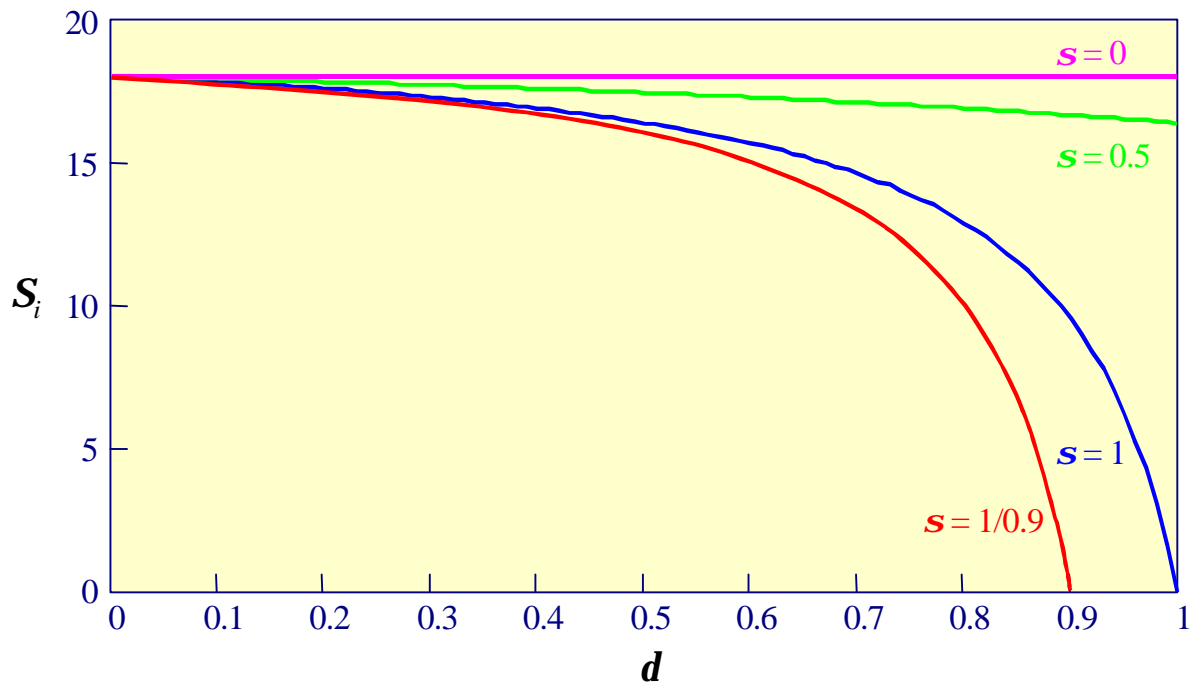


Figure 2. Relationship between MNE's discount rate and benefit of the subsidy

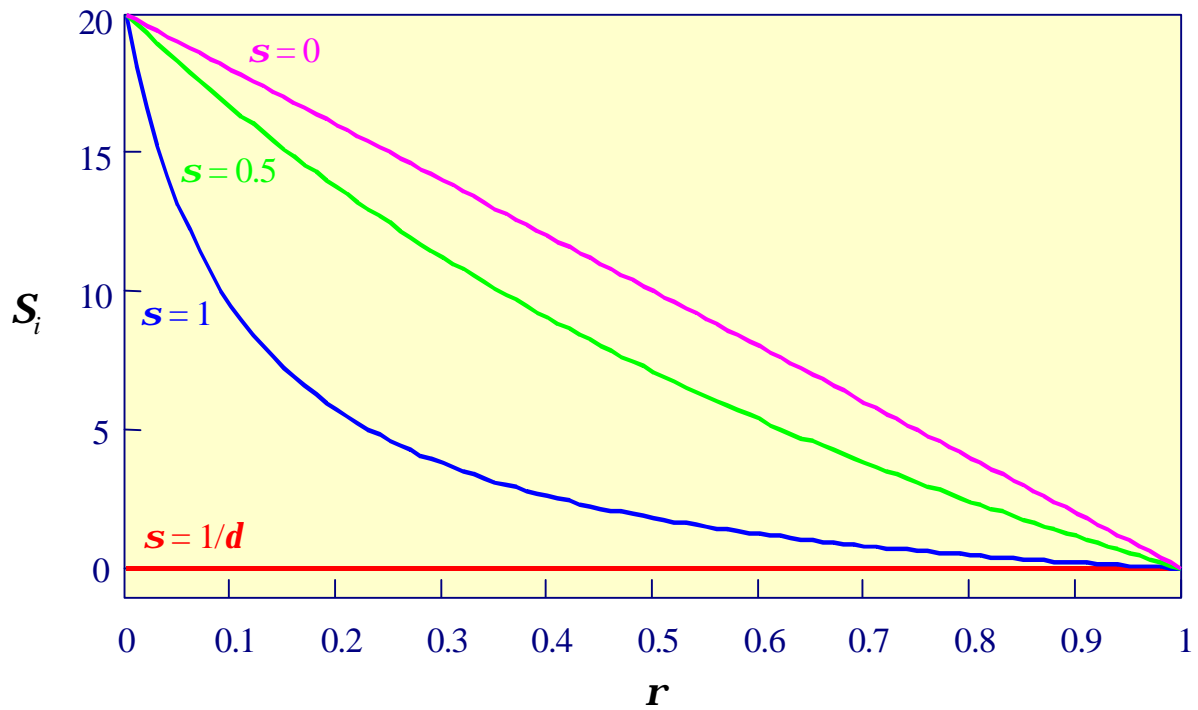


Figure 3. Relationship between risk of closure and benefit of subsidy

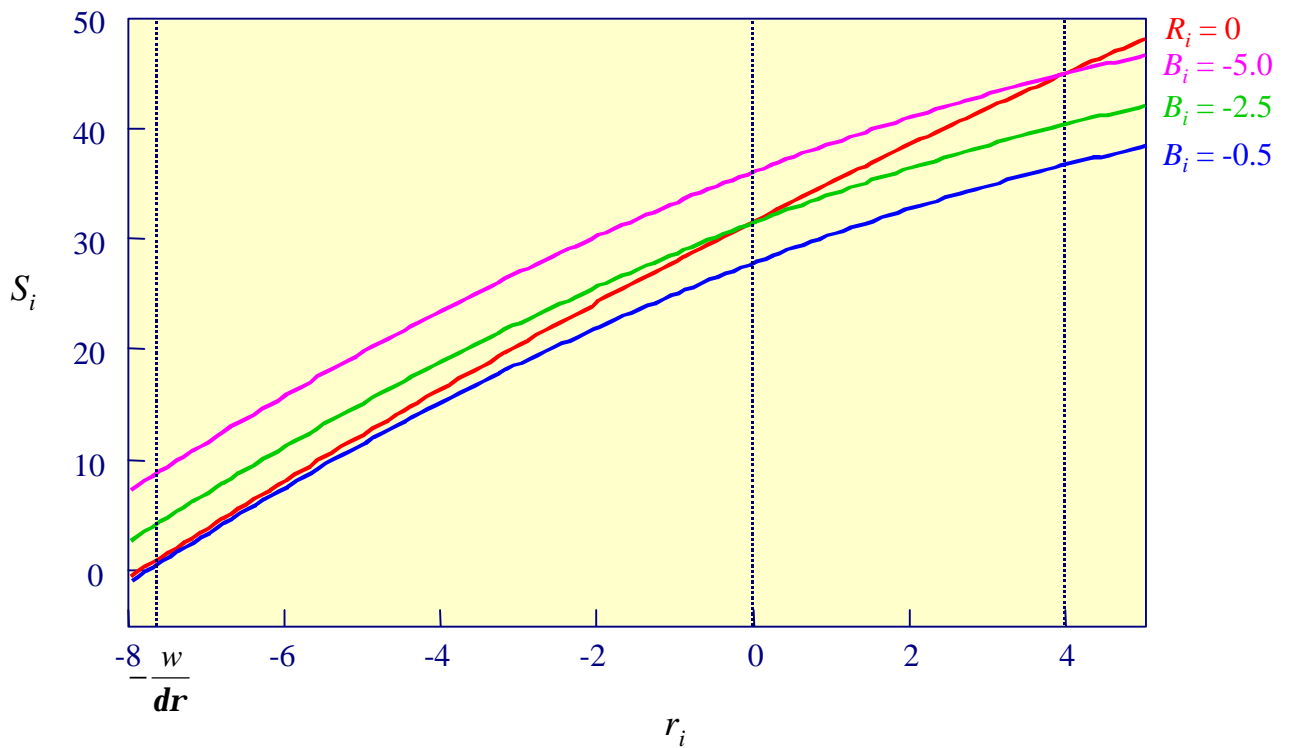


Figure 4. Benefits to the host country under various schemes to attract investment

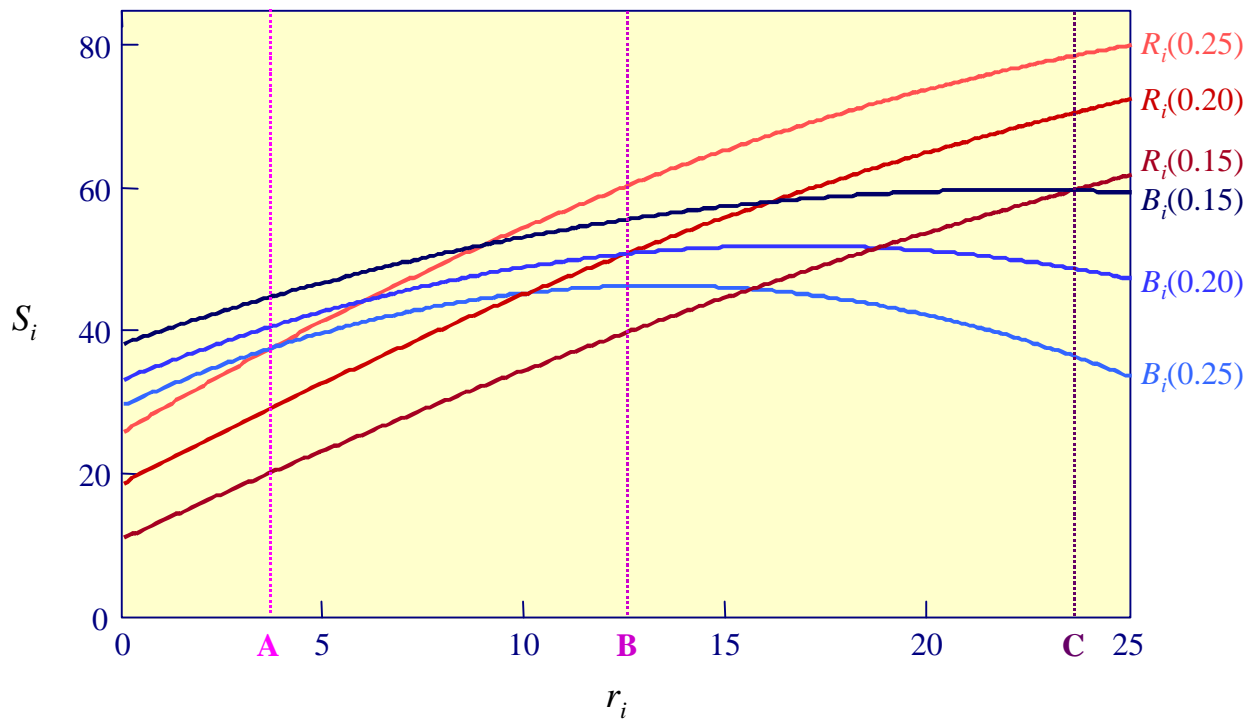


Figure 5. Incentives for investment under various levels of uncertainty