



DIRECTORATE FOR FINANCIAL, FISCAL AND ENTERPRISE AFFAIRS

REGULATORY INVESTMENT INCENTIVES

20 November 2001

This paper was written by Dr. Valpy Fitzgerald at the request of the Committee on International Investment and Multinational Enterprises and has been revised and expanded in light of discussions within the Committee. This project received financial support from the UK Department for International Development.

REGULATORY INVESTMENT INCENTIVES

*Dr. Valpy FitzGerald,
Finance and Trade Policy Research Centre, Oxford University*

I. Introduction

1. This paper examines recent policy issues relating to foreign investment incentives in the regulatory domain.¹ By ‘regulatory incentives’ in this context we mean those administrative conditions offered by governments to foreign firms other than special fiscal (e.g. tax) or financial (e.g. subsidies) treatment.² The key issue addressed in this paper is whether competition between host countries for inward investment on the basis of their regulatory regimes has any effect on the level and ‘quality’ (technology, stability, employment, etc) of that investment on the one hand. And on the other hand, whether such competition between countries leads to a welfare loss to that country and other OECD members or non-members.

2. However, it should be kept in mind that although there exists a considerable literature about the impact of FDI on the environment and employment, there is much less on the impact of regulatory regimes on FDI and very little indeed on the existence of or the consequences of regulatory competition between countries. Further there is a problem with the interpretation of statistical data relating regulatory standards to FDI. *All* regulatory standards – whether on property and competition, on environmental protection or on labour standards – tend to improve with a country’s income level. In addition, small countries are clearly in a weaker negotiating position with regard to large companies and large neighbours. Thus we would expect to see the incentive for a government to engage in regulatory competition to decline with both income and size. But income levels and market size are agreed to be the main attraction for FDI itself. So we would in fact expect to observe a statistical correlation between regulatory standards and inward FDI even if there were no causal connection.

3. This paper has three substantive sections. Section II examines the economic principles involved in the analysis of the impact of regulatory incentives on the investment decision of the international firm; where the predictability of future regulatory policy can be as significant to investment decisions as the particular standard enforced. Section III explores three current issue areas in relation to regulatory incentives at the national level: (i) property rights and market access rules; (ii) environmental protection; and (iii) labour standards. Section V addresses the existing international codes and agreements that might provide an alternative to, or support for, national regulatory arrangements and overcome the co-ordination problem. Finally, Section V concludes with some suggestions as to a possible agenda for policy research.

II. Regulatory incentives and the foreign investment decision

4. Economic theory justifies public regulatory intervention in markets where these are absent, incomplete or inefficient. In practice, this can be seen as a requirement to: (i) ensure property rights; (ii) correct for economic externalities; and (iii) prevent abuse by monopolies. The first and third criteria provide the basis for strong regulatory disciplines that underpin property rights (extending from guarantees against expropriation to upholding patents) and ensure market access to all firms as well as protect consumers. In this situation, stronger regulatory regimes can be expected to attract foreign investment. The effect of reducing legal barriers to foreign ownership is similar. However, it should be noted that national firms may enjoy protection from such measures and thus may consider themselves to be prejudiced by their removal.

5. The second two criteria are widely agreed to justify government regulation in order to maintain minimum standards of labour conditions and environmental protection. A particular production process may impose environmental costs (deforestation, pollution etc) on the economy as a whole, and for future generations, that are not reflected in current profit levels for the firm. These environmental costs can be reduced by specific legal constraints intended to internalise these social externalities to the firm. In the case of labour, it is suggested that workers are in a weak bargaining position where they have few skills (and are in excess supply) or are geographically immobile in contrast to foreign investors who can shift between countries. By extension, any general reduction of these standards, or a concession in a particular case, could reduce production costs and thus constitute an incentive to invest in a specific country.³ It would, however, impose costs on the rest of the economy and society.

6. In the case of international investment projects, this principle is complicated by the asymmetric nature of international capital markets. Small, transition and developing countries – that is, all but the largest industrial economies which are also net capital exporters – experience an ‘excess demand for capital’ in the sense that their governments desire a level of foreign direct investment higher than that currently obtaining.⁴ At the international level, this means that individual governments countries inevitably perceive the need to compete with other host countries for foreign investment by offering regulatory incentives in addition to tax breaks and state subsidies.

7. Further, modern investment theory – see Dixit and Pindyck (1994) – holds that relatively modest levels of uncertainty about future costs of production will require much higher ‘hurdle rates of return’ than the borrowing rate of interest for the firm to take the investment decision. This occurs because of the irreversibility of investment decisions, which means that the present value of future returns must exceed not only the capital cost itself but also the loss of the ‘option value’ of postponing the investment – or that of locating elsewhere. This is particularly true of uncertainty as to government policy on issues such as the environmental protection (*op. cit.* pp. 303-9) and labour skilling (*op. cit.* pp. 294-6). In consequence, regulatory standards that are regarded as predictable by investing firms will reduce uncertainty and increase the attractiveness of investment, even if they involve higher operating costs. This predictability can itself be derived from the legal or legislative process that supports them, which means they will not be applied arbitrarily; or from the fact that they are included in international agreements that are difficult to break.

8. Multinational firms operate in a number of countries and the investment in question takes place in a ‘host’ country distinct from the ‘home’ country where the headquarters is usually located, and the bulk of the shareholders (that is the ‘beneficial interest’) reside. The evaluation of a particular overseas investment project by the headquarters planners will involve, therefore, consideration not only of the profitability of the subsidiary in question but also the impact of that investment on the profits and asset price of the group as a whole (or ‘shareholder value’). The regulatory regime in the host country can thus affect (positively or negatively) not only the project return and risk, but also asset value of the group as a whole when a global brand image is affected and the sales of other group members suffer (or benefit).

9. Regulatory standards thus have three distinct consequences for the investment decision. First, the immediate impact on operating costs of higher (or lower) standards of wages, work conditions, social provisions etc on the one hand; and of higher (or lower) labour standards or environment protection. Second, the effect of uncertainty about future standards and property rights – where lower standards now may be replaced by the higher ones due to socio-economic progress and/or political pressure – which for irreversible investments can require considerably increased ‘hurdle rates of return’ to invest in a particular country. Third, the influence on the asset value of the group as a whole due to the reaction of shareholders, consumers and employees in the ‘home’ country to group subsidiary operations abroad.

10. In principle, the impact of regulatory incentives will thus vary by the type of firm and the sector of operations. Large international firms whose investment is based on technological leadership in a sector (such as telecommunications, banking or aerospace) will not have a cost base much affected by regulatory concessions on labour or environment. However, these firms may rely on patents and brand names and thus depend upon intellectual property rules. To the extent that they require a skilled labour force, the protection of unskilled labour does not present a problem: indeed, high labour standards may be a positive attraction to the extent that these are associated with public human capital investment. By extension, to the extent that company employees (especially international executives) prefer cities with good living standards, strong environmental protection can be an attraction factor.

11. In consequence, even though firms producing (say) apparel or timber could respond positively to regulatory incentives because these would reduce production costs, they might be expected to avoid locating in those countries where these standards are notoriously low – or at least to make sure that their subsidiaries (and identifiable local suppliers) maintain reasonable standards. To the extent that these firms are involved in long-term large investment projects – particularly in mining and energy – then they are more vulnerable to regulatory uncertainty. Thus the expectation that standards will not change in an unpredictable fashion can be a considerable incentive to invest.

12. However, the same logic also means that international firms that are not subject to these pressures cannot logically be expected to behave in the same way. Multinational corporations whose asset value does not depend on a consumer brand image, or one where the shareholding is highly concentrated and privately held, will clearly not have a very strong incentive to apply high environmental or labour standards to their overseas subsidiaries or suppliers. Firms whose asset value is based on technology will clearly value patent protection more highly than those producing standard products with cheap labour. Firms whose investment horizon is long are more concerned about property protection; while exporters are less concerned by domestic market access than services firms highly dependent on local consumer protection rules.

13. In sum, economic theory indicates that the impact of regulatory regimes – and thus the locational effect of changes in these regimes – will depend upon the nature of the production sector and the ownership structure of the firm on the one hand, and the institutional structure of the home and host countries on the other.

III. Recent issues in relation to regulatory incentives

a) Property protection and market access

14. The aspect of regulatory regimes of most direct concern to foreign investors is that related to the protection of corporate property and access to domestic markets. Indeed, this is the central topic of both the nearly two thousand bilateral investment treaties now in existence – a fourfold increase since 1990 (UNCTAD, 2001c: 6-7).⁵ Further, during that period there has been a marked tendency for national investment regimes to become more favourable towards FDI.⁶ These disciplines in turn have been included in regional arrangements such as NAFTA, and possibly would be included in multilateral agreements in the future.

15. Strong standards of property protection can clearly encourage foreign investment: the debate concerns the question of whether domestic investors are advantaged or disadvantaged by these developments. At the most basic level, the fear of expropriation of fixed assets is still a problem for foreign investors in only a few transition and developing countries. A more relevant consequence of regulatory uncertainty is over patent rights, which affects the ‘quality of investment’ reflected on the technology transferred as part of affiliates’ activities or joint ventures. A study of US firms operating in developing

host countries in the early 1990s shows that both the composition and extent of US direct investment is influenced by patent rules, and that in many cases intellectual property protection is too weak to permit joint ventures with local partners (Mansfield, 1995). Investment in R&D facilities is clearly much more sensitive than that in sales or distribution outlets, while some industries (such as pharmaceuticals) are more sensitive than others such as food processing or transportation equipment. Older technologies are transferred to countries with weak intellectual property protection. Evidence for Japanese and German firms in developing countries indicates a similar pattern, with the strength or weakness of a country's system of intellectual property protection seems to have a substantial effect in relatively high-technology industries (such as chemicals, pharmaceuticals, machinery and electrical equipment) on the kinds of technology transferred.

16. Another dimension of property regulation with relevance of foreign investment is the widespread and large-scale privatisation of state-owned enterprises in both OECD and non-OECD member countries over the last two decades. This has fuelled the recent growth of FDI by 'merger and acquisition' in many countries, which has also been caused by the tendency of international firms to expand by 'horizontal integration' (that is conducting similar activities abroad) rather than 'vertical integration' (expanding upstream or downstream along the value chain). The withdrawal of public enterprises in fields such as utilities, banking and telecommunications has also generated much more competition and thus scope for entry by foreign firms. However, regulations for the newly privatised sectors – whether or consumer protection or prudential oversight – can lead to effective protection for established firms (Warner, 1996).

17. The empirical literature on the impact of private sector restrictive practices in discouraging inward FDI indicates that in only a few countries does this constitute a major problem (Noland, 1999). However, evidence is found of restrictive practice in retail distribution (e.g. the UK), bidding for public sector contracts (e.g. Japan), in airline ticketing (e.g. in the US) and quality standards (e.g. Korea); all of which inhibit inward investment. More important perhaps are the patterns of closed share ownership that means that local capital markets become an effective barrier to FDI through mergers and acquisitions – particularly in continental Europe and Japan. Although these impediments may arise as much from official regulatory rules as from informal restrictive practices, they imply a need to avoid pressures for re-regulation as a disguised form of restrictive practice (Graham & Richardson, 1997).

18. Most WTO and other trade agreements limit or prohibit investment incentives in the form of subsidies. However, the TRIMs agreement (which relates to those aspects of FDI which impact on the trade in goods rather than services) prohibits regulatory measures that are inconsistent with national treatment and quantitative restrictions principles: in effect measures on local content and trade balancing which have been widespread in the past.⁷ In consequence, there has been increased interest in recent years in the provision of positive incentives to FDI through "policies to strengthen linkages" that "raise the efficiency of production and contribute to the diffusion of knowledge and skills from the TNCs to the local enterprise sector" (UNCTAD, 2001c: Chapter V), but are still consistent with WTO commitments on protection and subsidies. These 'new investment policies' relate to information provision, 'matchmaking', technology upgrading and training for local firms. In the case of Singapore, Ireland, Wales, Malaysia and the Czech Republic these measures seem to have been remarkably effective in both attracting FDI and strengthening local linkages.

b) Environmental protection

19. In principle we would expect the downward pressure on standards to be most evident in the case where environmental regulation represents a significant part of costs (or restriction on investment) and where host countries are good substitute locations. The sectors that would seem to be potentially most vulnerable would thus be natural resource extraction (including the industrial use of water) and polluting

manufacturing sectors such as chemicals, paper and metal processing. However, against this must be set the fact that the main attractors for foreign investment are natural resource availability, large domestic markets and skilled labour pools. These attractors are geographically specific and thus reduce the ability of investors to move between economies. Major natural resource projects on the one hand, and modern non-traded service sectors (such as banking and utilities) on the other, thus offer less opportunity for investment mobility than industrial production.

20. In view of the unavoidable environmental impact of large natural resource extraction projects and the frequency of foreign investor involvement, such contracts have always been negotiated on an ad hoc basis (including clean-up provisions) rather than being conducted under fixed national or international rules (Schrijver, 1997). Thus although there is no lack of evidence on the environmental impact of large mining and oil projects, due to their geographical specificity there is little regulatory competition between countries in this area because this would not be sufficient to shift investment. None the less, there is considerable evidence of investors pressuring governments to modify environmental prohibitions on drilling in cases such as that of Alaska and on opencast mining in the UK. By extension, there is most cause for concern where negotiations take place between large multinational investors and small non-OECD countries, where the royalty and tax income to the state (and possibly to its senior members) might override the environmental concerns of the majority of the population or of vulnerable social groups.

21. In contrast, service sector investment does not usually have much environmental impact, and it could even be argued that the need to attract skilled technical and managerial staff gives environmentally attractive countries (more specifically regions or cities within them) a competitive edge in attracting banks, insurance companies and call centres. The fact that an increasing proportion of world-wide FDI is in the service sector is reassuring in this context: some 52 percent of the world inward FDI stock is in services (46 percent in 1988) as opposed to 6 percent in resource-based sectors and 42 percent in the industrial sector (Table 1). The shares are similar for developed and developing countries.

Table 1. **Inward FDI Stock, 1999**

	World	Developed Countries	Developing Countries	Transition Countries
Total (US\$ bn.)	3633	2520	1015	98
Sectoral distribution:				
Primary (%)	5.5	5.7	5.4	2.5
Secondary (%)	41.6	36.4	54.5	43.5
Tertiary (%)	50.3	55.5	37.3	50.3
Unspecified (%)	2.5	2.4	2.8	4.0

Source: UNCTAD, 2001c: 259-60

22. Much of the recent empirical research on regulatory competition has thus focussed on the location decisions of 'dirty' industries. Even in the case of heavy industry, there is little hard evidence of 'pollution havens' exercising a strong attraction in OECD countries (OECD 1999). International industrial competitiveness and environmental regulation do not appear to be directly linked.⁸ Indeed, inward FDI to the US involves more pollution-intensive industries than outward FDI from the US, while 'dirty' US industries are no more likely to invest abroad than other industries (Albrecht, 1998).

23. A recent OECD Development Centre survey of empirical literature on 'rule-based competition' by governments to attract FDI (Oman, 2000) finds that what limited evidence exists suggests that "firms in

modern manufacturing and service industries rarely move their operations to take advantage of lower environmental standards in another country, and that efforts by national governments to compete for FDI in these industries through lax standards or lax enforcement of environmental protection are unlikely to be unsuccessful.” In contrast, the World Bank (2001) suggests that the effect of trade liberalisation and associated foreign investment inflows has had a mixed effect on the environment in non-OECD countries. On the one hand, more efficient energy use due to price adjustment (especially in Eastern Europe) has reduced carbon pollution; but on the other hand, scale and composition effects lead to more ‘dirty’ industries expanding (Beghin and Poitier, 1997). The World Bank cites evidence that this has indeed happened in Indonesia, China, Costa Rica and Turkey. French and US FDI flows to manufacturing in the Ivory Coast, Mexico, Morocco and Venezuela appear to have no pollution-intensive bias (Eskland & Harrison, 1997); but Xing & Kolstad (1995 cited in World Bank *op. cit.*) find that US FDI in chemical industries seems to be influenced by weak environmental regulation, but not in cleaner industries.

24. Evidence based on interviewing multinational firms about their decisions on location of plant *within* countries suggests that looser regulation does have an attractive effect (UNCTAD, 1993); although this effect appears to be weak within more advanced ones such as the US (Levinson, 1997). Where OECD pollution-intensive industries do shift, it is usually to other OECD countries: the worst offenders are often non-OECD based firms. This may be because larger OECD-based firms tend to apply uniform standards on their subsidiaries, which then match those in the home country (UNCTAD, 1993, 2001a). None the less, there is good reason to believe that in fact many of the smaller OECD and non-OECD governments are constrained from raising their standards by fear of loss of attractiveness to foreign investment.

c) *Labour standards*

25. Unlike the situation in property and environmental protection discussed above, there do exist internationally agreed norms on labour standards. These are included in declarations aimed at protecting the human and labour rights ranging from the Universal Declaration on Human Rights to the protocols drawn up by the International Labour Organisation (ILO, 1991). These refer to ‘core’ labour standards such as the right of association or the prohibition of slave and child labour. They do not relate to wage levels, working conditions or contractual forms.

26. Competition for inward investment on the basis of flexibility of employment contracts and reduced non-wage labour costs has characterised the OECD economies (and states’ policies within the USA) for some decades. Similar competition in the sphere of labour regulation has emerged more recently in Europe, but it is due to firms’ desire for flexibility when reorganising production rather than the search for low wages or working conditions as such. This has led to both the establishment of the EU Social Charter in order to prevent ‘social dumping’ and the de facto move towards shorter employment contracts and reduced social security costs at the national level. However, the implementation of ILO core labour standards is not in question as these are considerably lower than the minimum standards established in national law by OECD members.

27. The most vulnerable sectors for potential lowering of labour standards (in the ILO sense) are thus in developing countries, which are intensive in low-skill employment and attempt to attract ‘footloose’ industries such as textiles and clothing. The strongest evidence for regulatory competition is probably the establishment of ‘free trade zones’ (FTZs) that attract light industry such as electronics, clothing and footwear (ILO 1998). In addition to tax incentives and subsidised infrastructure, labour regulations are generally less stringent, allowing flexibility in piece-rates and employment contracts. Environmental regulation – particularly in the disposal of pollutants – also appears also to be lax in many FTZs. By definition, therefore, foreign investors in these zones receive ‘better than national treatment’ although in

practice there is little to prevent a domestic firm from investing in an FTZ in its own country through an overseas holding company.

28. The rapid spread of EPZs in developing countries recent decades is characterised by poor labour standards by international criteria, although the higher wage earnings than in local domestic companies are clearly a positive incentive for local labour supply for the EPZ (ILO, 1998). While the most common response to increased competitive pressure is to increase the intensity of work and relate piece-rates to quality, there is some evidence of a gradual shift in the more technologically advanced sectors towards more modern management methods to enhance quality. However, the most recent OECD survey suggests that there is no robust evidence – with the possible exception of China – that foreign investors are attracted by low core labour standards as opposed to low unit labour costs, while they are likely to be attracted by the stable social climate associated with good labour relations (OECD, 2000).

IV. International regulatory coordination

29. There is no doubt that the scope and spread of foreign investment incentives has increased considerably over the past two decades (UNCTAD, 1996). Three issues have thus dominated recent debates on regulatory incentives to foreign investment in relation to labour and environment standards. First, the issue of a real or potential ‘race to the bottom’ where host countries compete for foreign investment by lowering standards due to co-ordination failure leading to global welfare loss. Second, the issue of a real or potential ‘race to the top’ where investors apply higher standards than host countries and thus raise the overall level as part of global corporate strategy. Third, the issue of responsibilities of international firms under international law in the light of difficulties in establishing or implementing multilateral treaties in this field.

30. It is a relatively uncontroversial proposition that host countries – particularly in non-OECD countries - should not use the relaxation of labour and environmental standards in order to attract or retain foreign investment. The adoption of core labour standards depends in practice on legal systems and peer pressure as well as on income levels (Chau and Kanbur, 2001) while environmental standards appear to depend on institutional development as much as on income as such (Dasgupta, 2001).

31. However, it is far from clear how to make these standards legally binding and subject to dispute settlement procedures. Many countries have already expressed concern about WTO intrusiveness into the affairs of sovereign governments, particularly in areas of environmental protection and health and safety. None the less, in both the US and to a lesser extent the EU, there is strong pressure from both domestic legislators and civil society groups to ensure that future trade agreements contain some form of safeguards in these areas. In contrast, developing and transition countries are generally opposed to such initiatives, which would disadvantage their own firms (particularly the small and medium enterprises) and are determined to keep such safeguards out of multilateral negotiations.

32. The possibility that states could strategically decrease environmental protection to attract new industries, setting off a ‘race to the bottom’, is analytically well founded in game theory (Wilson, 1997). At the practical policy level, for instance, “one concern about trade and financial integration is that countries with relatively weak environmental regulations will attract dirty industries away from countries with stronger regulations, and that because of competitiveness concerns integration will inhibit the imposition of strong environmental regulations (‘regulatory chill’)” (World Bank, 2001, p. 96).

33. International agreements aimed at protecting the labour rights and the environment include the various protocols drawn up by UN organisations as well as regional trade arrangements. Specifically, both the ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy

(Article 46) and the NAFTA (Article 1114) contain commitments on not lowering standards. However, although such commitments may bind governments, few have tried to enforce these undertakings on the private sector. OECD members have encouraged self-regulation by the private sector as a way of resolving this dilemma; and to forestall emerging demands from non-governmental organisations for mandatory regulation. The potential damage to a firm's reputation, the need to improve community relationships, and the prospect of more stringent government regulation can provide multinational companies with an incentive to adopt voluntary codes of conduct either individually or a part of a trade association (UNCTAD, 1999).

34. Constituencies mainly drive these 'codes of corporate conduct' in advanced (i.e. OECD member) economies. They are not considered to be a substitute for national legislation, but rather imply a level of treatment of labour and environment of a higher standard than that required by the host (transition or developing) country. This in turn would set an example to other companies – both domestic and foreign – in that country. These codes are supposed to be consistent with corporate profitability criteria because the resulting products will be more attractive to consumers (or at least not be actively avoided by them). This approach is thus conceptually distinct from the older tradition of improving social conditions in the workplace and immediate locality in order to improve labour productivity, reduce staff turnover, and ensure the support of local authorities.

35. The practical impact that private regulation initiatives such as labelling schemes have on the market depends in practice upon the general level of issue awareness among consumers and investors, and their willingness to make respect for human rights, labour standards or environmental protection relevant criteria in their purchasing decision (FitzGerald, 2000). There is thus a double problem for the firm: that of shifting consumer preference functions, and that of informing consumers about a particular firm or product. Consumer preferences in advanced economies do seem to be shifting towards 'green' products, and against those using 'sweated labour'; and labelling does seem to have some impact, although activism by non-governmental organisations may be more effective in practice. However, in practice labelling poses the problem of 'free riding' by non-compliant companies, and thus the need to rely on trade associations to regulate their use – and in some cases even support from legislation, if only to protect consumers from misleading advertising.

36. The traditional view - that multinational companies are only subject to the labour and environmental legislation of the country where the operations in question take place – is thus now felt to be inappropriate. It is to be assumed that most companies (particularly from OECD member countries) do comply with host legislation, even though they may exert lobbying pressure to have it changed to their advantage through the normal consultative and diplomatic channels – and actively do so in the case of property protection and market access. In consequence multinational firms are now encouraged to engage in "responsible business conduct" in the OECD *Guidelines* (OECD, 2000)⁹ that "express the shared values of the governments of countries that are the source of most of the world's direct investment flows and home to most multinational enterprises", although the Guidelines "are not a substitute for, nor do they override, applicable law. They represent standards of behaviour supplemental to applicable law and, as such, do not create conflicting requirements". Their voluntary nature¹⁰ permits a gradual 'buy-in' process as countries bring them into national law (which may of course be binding on their companies overseas), which should gradually give them a substantive role in reducing potential abuse relating to incentives.

37. In addition, multinational companies are increasingly becoming subject to cross-border legislation independently of treaties on investor protection, labour standards and the environment, which all rely on (home or host country) domestic legislation to affect companies. First, trade treaties such as NAFTA contain environmental and labour obligations where companies and citizen groups can participate in the dispute settlement procedure (Neuiwenhuys and Brus, 2001). Second, there is an increasing willingness of courts in home countries to admit cases involving the activities in other (host) countries by

subsidiaries of multinational corporations, brought by citizens of the host country or their representatives (Muchlinski, 1995). And third, there is an emerging notion among international human rights lawyers that companies can be held criminally responsible for abuses under international law in view of the obstacles to legal accountability at the national level (ICHRP, 2001). In this context, human rights established under international law are increasingly understood to extend to both labour and environmental conditions - particularly those relating to health and safety (UNECS, 2001).

38. In consequence, there is a growing public awareness that some form of international coordination of regulatory standards has become necessary. In a world where the distribution of both 'own' multinational corporations and knowledge capital is highly unequal then regulatory competition logically leads to global welfare loss, with severe coordination failure costs if some countries refuse to join a coordination scheme or will only do so if all others do so as well (Turini and Urban, 2001). The welfare gains would be particularly significant for small or weak states whose domestic regulatory regimes are not credible or most subject to 'negotiation' by investors (FitzGerald, 2001). International coordination designed to strengthen institutional capacity as well as legislative content would thus seem to be important for these states.

V. Conclusions and policy research implications

39. This paper has attempted to show that economic analysis can shed some light on regulatory investment incentives if the heterogeneity of firms and countries are explicitly taken into account. Broadly speaking, 'upward' competition on property rights and market access is probably beneficial for OECD and non-OECD member countries alike (albeit less so for domestic firms in host countries); while 'downward' competition on environment and labour - mainly a problem for non-OECD members - when it occurs probably leads to welfare losses. No case can be made for different standards between *large* domestic firms and (large) foreign firms; although there are good arguments for preference to small firms due to their employment-creation role.

40. As this paper has shown, the empirical literature contains ambiguous results on the existence, effect and consequences of regulatory competition for foreign investment. Even though the empirical evidence on a regulatory 'race to the bottom' leads to no clear conclusion (Brown, 2000; UNCTAD, 2001a), there is no robust indication that measurable indicators on environmental or labour standards are negatively associated with investment inflows. However, there are two major problems with such studies. First, it is difficult to establish reliable indicators of the independent regulatory variables or of the dependent variable (foreign investment) itself on a cross-country basis. Although some fragmentary data is available on variables such as wage levels and environmental quality, they do not directly reflect the strength of regulatory legislation or application. The usual measure of 'foreign direct investment' is in fact not capital formation by multinational corporations but rather changes in equity stake that include acquisitions and exclude third-party finance. In particular, large privatisations in developing and transition countries, and mergers in industrial countries, have distorted the published FDI figures seriously during the past decade.

41. Second, a significant problem of direction of causation is involved in these attempts at econometric measurement. It is clear that labour and environmental standards themselves rise with the level of economic development (Dasgupta, 2001; Chau and Kanbur, 2001) and this in turn is one of more significant explanatory variables in all empirical models of foreign investment. Thus a measured positive association between high regulatory standards and foreign investment cannot be used to negate the existence of a 'race to the bottom' (or assert a 'race to the top') unless careful correction is made for per capita income or market size. A case study approach to firms' location decisions in specific instances of regulatory incentives should allow these two problems to be overcome. More research is also needed on

the effect of regulatory uncertainty on investors - probably by careful surveys of investors and non-investors.¹¹ There is also a need to distinguish between the effects of incentives offered by different levels of government (e.g. central ministries versus regional authorities) and by semi-autonomous regulators themselves.

42. However, the social costs of the lowering (or not raising sufficiently) standards in these sensitive areas imply that in the absence of hard evidence, the precautionary principle should be applied – that is, to positively avoid potential damage. On this principle, the table below summarises the policy areas where there is most reason to be concerned, and thus where there is most need for sound policy research.

Levels of potential policy concern

Issue	OECD members		Non-OECD members	
	Industrialised	Industrialising	Middle-income	Low-income
Property/access	Negligible	Negligible	Some	Some
Labour standards	Negligible	Low	Some	High
Environment	Negligible	Some	Some	High

43. In sum, the difficulties inherent in the multilateral coordination of standards in relation to property protection, market access, labour standards and the environment beyond the most basic principles mean that recent progress in the related fields of global market regulation such as goods trade and financial regulation may be very difficult to follow. The heterogeneity of economies, firms and sectors has to be taken into account if rules-based systems are to be workable. In consequence, regional arrangements may well turn out to be especially appropriate as they can allow for similar levels of development and institutional similarities better than a multilateral system – particularly for small or poor countries which are most at risk of modifying the regulatory standards they judge appropriate in order to compete for foreign investment with their neighbours.

BIBLIOGRAPHY

- Abrecht, J. (1998) 'Environmental policy and the inward investment position of US dirty industries' *Intereconomics* (July-August).
- Beghin, J. and M. Poitier (1997) 'Effects of trade liberalisation on the environment in the manufacturing sector' *World Economy*. 20(4)
- Brown, D.K. (2000) *International Trade and Core Labour Standards: a survey of the recent literature* Paris: OECD/DEELSA.
- Chau, N.H. and R. Kanbur (2001) 'The adoption of labour standards conventions: who, when and why?' *Discussion Paper 2904* London: CEPR.
- Dasgupta, S. and others (2001) 'Environmental regulation and development: cross-country empirical analysis' *Oxford Development Studies* 29.2.
- Dixit, A.K. and R.S. Pindyck (1994) *Investment under Uncertainty* Princeton NJ: Princeton University Press.
- Eskland, G.S. and A.E. Harrison (1997) 'Moving to greener pastures? Multinationals and the Pollution Haven Hypothesis' *Policy Research Working Paper 1744* World Bank: Washington DC.
- FitzGerald, E.V.K. (2000) 'Regulating large international firms' Oxford: QEH Working Papers Series <http://www2.qeh.ox.ac.uk/research/qehwp-list2.html> [also in FitzGerald (forthcoming) *Global Markets and the Developing Economy* Basingstoke: Palgrave].
- FitzGerald, E.V.K. (2001) 'Developing countries and multilateral investment negotiations' pp. 35-66 in Nieuwenhuys *op. cit.*
- Graham, E.M. and J.D. Richardson eds (1997) *Global Competition Policy* Washington DC: Institute for International Economics.
- ICHRP (2001) *Business Wrongs and Rights: human rights and the developing legal obligations of companies* Geneva: International Council on Human Rights Policy.
- ILO (1991) *Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy* (2nd ed.) Geneva: International Labour Office.
- ILO (1998) *Labour and Social Issues Relating to Export Processing Zones* Geneva: International Labour Organisation.
- Levinson, A. (1997) 'Environmental regulations and industry location: international and domestic evidence' in J.N. Bhagwati and R.E. Hudec (eds) *Fair Trade and Harmonization* Cambridge MA: MIT Press.
- Mansfield, E. (1995) 'Intellectual Property Protection, Foreign Direct Investment and Technology Transfer: Germany, Japan and the United States' *Discussion Paper 27* Washington DC: International Finance Corporation.

- Muchlinski, P. (1995) *Multinational Enterprises and the Law* Oxford: Oxford University Press.
- Nieuwenhuys, E.C. and M.M.T.A. Brus eds (2001) *Multilateral Regulation of Investment* The Hague: Kluwer Law International.
- Noland, M. (1999) 'Competition policy and FDI: a solution in search of a problem?' *IIE Working Paper 99-3* Washington DC: Institute for International Economics.
- Oman, C.P. (2000) *Policy Competition for Foreign Direct Investment* Paris: OECD Development Centre.
- OECD (1999) *Foreign Direct Investment and the Environment* Paris: OECD Centre for Co-operation with Non-members.
- OECD (2000a) *International Trade and Core Labour Standards* Paris: OECD.
- OECD (2000b) *The OECD Guidelines for Multinational Enterprise: Revision 2000* Paris: OECD.
- Schrijver, N. (1997) *Sovereignty over Natural Resources: Balancing Rights and Duties* Cambridge: Cambridge University Press.
- Turrini, A. and D. Urban (2001) 'For whom is MAI? A theoretical perspective on multilateral agreements on investment' *Discussion Paper 2774* London: CEPR.
- UNCTAD (1993) *Environmental Management in Transnational Corporations: Report on the Benchmark Environmental Survey* Geneva: United Nations.
- UNCTAD (1996) *Incentives and Foreign Direct Investment* New York and Geneva: United Nations.
- UNCTAD (1999) *The Social Responsibility of Transnational Corporations* New York and Geneva: United Nations.
- UNCTAD (2001a) *Issues in International Investment Agreements: Environment* (UNCTAD/ITE/IT/23) New York and Geneva: United Nations.
- UNCTAD (2001b) *Issues in International Investment Agreements: Social Responsibility* (UNCTAD/ITE/IT/23) New York and Geneva: United Nations.
- UNCTAD (2001c) *World Investment Report 2001* New York and Geneva: United Nations.
- UNESCO (2001) *Economic, Social and Cultural Rights: draft universal human rights guidelines for companies* E/CN.4/Sub.2/2001/XX New York, NY: UN Economic and Social Council, Commission on Human Rights.
- Warner, M. (1996) 'Private and public impediments to market presence: exploring the investment/ competition nexus' in P. Sauve and D. Schwanen *Investment Rules of the Global Economy* Ottawa: Howe Institute.
- Wilson, J.D. 1997 'Capital mobility and environmental standards: is a theoretical basis for a race to the bottom?' in J.N. Bhagwati and R.E. Hudec (eds) *Fair Trade and Harmonization* Cambridge MA: MIT Press.
- World Bank *Global Economic Prospects and the Developing Countries 2001* Washington DC: World Bank.
- Xing, Y. and C. Kolstrad (1995) 'Do lax environmental regulations attract foreign investments?' *Working Papers in Economics 06/95* Santa Barbara CA: University of California.

NOTES

- 1 See OECD (2001) Project on Policy Competition for FDI: Issues for Discussion, DAF/IME(2001)20.
- 2 This paper is concerned with regulatory incentives rather than taxes and state aid; although there is overlap at the margin because a potential ‘subsidy’ exists when “a firm is said to be ‘favoured’ by reference to the situation faced by other firms in the industry. For example, a firm would be said to be benefited or favoured if it received a higher level of financial transfers, lower taxes, greater benefit from public goods or fewer environmental or regulatory controls than its competitors in the market” (OECD 2001 Competition policy, subsidies and state aid, DAF/CLP/WP2 (2001)1).
- 3 In sum “a government could choose a weaker-than-appropriate regulatory regime, effectively setting the price for the harm lower than the cost of the harm inflicted. Firms in that jurisdiction would then benefit from this implicit ‘subsidy’, in the same way that under-pricing of any input can constitute a form of subsidy” (OECD, *op. cit.*).
- 4 This type of ‘supplier rationing’ is of course a general characteristic of capital markets and is caused by asymmetric information and agency costs. In domestic financial markets this leads to banks rationing credit (and funds limiting equity exposure) to firms – particularly those that are small or risky.
- 5 Matched by a similar number of bilateral treaties to avoid double taxation (*loc. cit.*).
- 6 In 2000, these changes were mainly to provide more guarantees (40%), more liberal entry and operational conditions (24%) and more sectoral liberalisation (19%); as opposed to those involving more controls (2%) or even more promotion, including incentives (16%).
- 7 See OECD (2001) Regulation of investment incentives: the impact of trade agreements, TD/TC/WP(2001)38.
- 8 See also OECD (2001) Environmental issues in policy-based competition for investment: a literature review, ENV/EPOC/GSP(2001)11.
- 9 Specifically, the 2000 version of the *Guidelines* as compared to the previous (1976) version adds recommendations on the elimination of child labour and forced labour, so as to cover all internationally recognised core labour standards. The environmental section now encourages multinational enterprises to implement environmental management systems and provide for environmental impact contingencies.
- 10 29 member countries and 4 non-members have adopted the Guidelines.
- 11 Although many significant cases of relocation can be (and have been) identified, there is still a severe problem of selection bias if cases of firms that have *not* relocated are excluded (UNCTAD 2001a).