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COMPETITION POLICY, MARKET POWER AND COLLUSION IN DEVELOPING COUNTRIES

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COMPETITION POLICY, MARKET POWER AND COLLUSION IN DEVELOPING COUNTRIES

Abstract

The paper aims to examine some of the critical factors that make the implementation of effective competition policy difficult in developing countries. The paper begins by reviewing the variety of factors that have accounted for the rise in interest in promoting competition in developing countries over the past decade. It briefly reviews the various theoretical perspectives on competition as a background to understanding the range of approaches put forward for competition policy. A number of policy-related propositions, drawn from the theoretical literature, are examined and related to policy and practice in developing countries. The discussion focuses on the rivalry for the acquisition of assets in terms of entry and exit constraints and on the rivalry that exists in the use of assets, by considering the factors that facilitate collusion. It provides reasons why anti-competitive practices may be more difficult to detect in developing countries and why competition agencies face obstacles in implementing competition policies.

INTRODUCTION

Interest in promoting competition in developing countries has increased over the past decade. Despite differences, developing countries are generally characterised by lower degrees of market competition than their industrialised country counterparts. Until relatively recently, few developing countries had OECD type competition policies. By the end of the 1980s up to a dozen had antitrust legislation and institutions (Gray and Davis, 1993). By the early 2000s this has grown considerably.

The heightened interest in competition in developing countries has various explanations. In part, it is undoubtedly linked to the wave of neo-liberal economic reforms introduced since the 1980s, and in particular to the issues raised as a result of privatisation. To many, privatisation was a response to the government failures encapsulated in the notion of the 'grabbing hand of government', a term coined by Shleifer and Vishny (1998). This, drawing on public choice theory, indicated that the key problem of state enterprises was government interference in their activities, which leads them to pursue political rather than economic goals. Privatisation was viewed as a policy that would restrict the future influence of the state on privatised enterprises. This view sees government control, and in particular regulations, as the main vehicles for enriching politicians and promoting corruption and,

therefore as a fundamental problem. As a consequence, deregulation and liberalisation were viewed as inevitable solutions.

Competition in relation to privatisation was important in at least two respects. First, privatisation was often associated directly with competition, moving from government-owned enterprises with monopolies and restricted entry to private ones operating under competitive market conditions. Second, and alternatively, privatisation did not always guarantee an improvement in competitive conditions because public monopolies were transformed into private ones, and not all of these were so-called natural monopolies (Cook and Kirkpatrick, 1995; Shirley and Walsh, 2000). This raised new questions with respect to competition policy. How would natural monopolies operate in the private sector? Would sector regulation provide surrogate competition for them? Would competitive conditions eventually be encouraged and introduced? Would non-natural monopolies, created as a result of privatisation, be dealt with?

The interest in issues relating to competition have also been sparked off by recent developments in the global economy. These have included the recent spate of mega-mergers and the increased potential for cross-borders anti-competitive practices (Evenett, 2002). In particular, concern has focussed on the adequacy of developing country governments to deal with these, and to the role that global institutions can play in setting rules to ensure competitive markets flourish (Hoekman and Holmes, 1998; Evenett, Levenstein and Suslow, 2001). While there are many bilateral and regional agreements on competition policy between countries, most multilateral principles for competition are currently voluntary.

The issue of competition has also received considerable attention in the aftermath of recent financial crises in various parts of the world. Among the causes that have been cited are those relating to over-investment resulting from a poor competitive environment, although the evidence supporting this explanation is weak (Glen, Singh and Matthias, 1999). However, the increased emphasis on competition is linked to concerns in developing countries over weak systems of corporate governance, leading to greater enterprise inefficiency. Competition is often viewed as a substitute for corporate governance. This idea may be reinforced when it is considered how little is known about how corporate governance works in developing countries outside of the state-owned enterprise sector (Shleifer and Vishny, 1997).

In a broader sense the dramatic changes ushered in after the collapse of communism have contributed to the heightened interest in competition. The initial reaction in previously centrally-planned economies was to leave the process of restructuring to unfettered markets; this was seen as a logical response to the rigidities of the former command system (Commander, Dutz and Stern, 1999). The reality was that transitional economies developed weakly operating competitive markets and regulatory frameworks, although experience has varied, and some countries such as Poland and Hungary appear to have achieved better results as far as competitive pressures are concerned (Carlin and Landesmann, 1997).

The interest in domestic conditions for competition and attention to anti-trust type competition policy in developing countries has particularly resulted from the failures of economic reforms in the 1980s, that overly relied on trade liberalisation to promote domestic market competition. World Bank structural adjustments loans did not stipulate conditions for domestic competition policy (Gray and Davis, 1993). One general conclusion was that trade liberalisation did not do the whole job – it did not guarantee by itself a desirable level of competition in an economy, and correspondingly did not achieve all it was expected to in terms of increasing productive efficiency and competitiveness in international markets (Tybout, 1992). This raised questions over whether this was the right way to stimulate competition in developing countries. The idea that trade liberalisation would improve domestic competition has led to a reassessment that indicates that success in trade and liberalisation is itself dependent on establishing a competitive domestic market environment. This, in turn, is dependent on a view of competition policy that not only incorporates notions about the potential abuses of economic power by enterprises, but considers the broader aspects affecting the competitive infrastructure such as communications, financial and fiscal systems and regulatory constraints. The pessimism may have been reaffirmed by the experience of developed economies, which had become more open, and had long histories of competition policy, yet enterprises in the economies continued to engage in anti-competitive practices.

The new interest in competition in developing countries has, in turn, exposed how little is known of the effectiveness of competition policies and about the ways in which competitive processes work in developing countries. Up until 2000, there have been no systematic attempts to examine the ways in which competition policy influences competition in either

developed or developing counties (Carlin and Seabright, 2001). Recent work by Dutz and Vagliasindi (2000), collecting information on competition law, implementation and its impact on competition in twenty transitional economies, concludes that effective competition policy implementation results in more intense competition. The recent DFID-funded study, undertaken by an Indian NGO, examines competition policy in seven developing countries (and is popularly known as the seven-up project) and finds wide cross-country differences in the framework for competition policy and in its implementation (Cuts, 2002).

Understanding how competition works in theory obviously depends on which theory is being considered. Vickers (1995) distinguishes two broadly competing concepts of competition. The first relates to the modern theory of resource allocation in which competition is viewed as an equilibrium state. Equilibrium behaviour results in competition reducing prices and is epitomised at one end of the spectrum by the special case of perfect competition, in which all rivalry is absent, and monopoly at the other, in which one enterprise is dominant. The second views competition as a process of rivalry, in which price and non-price forms of competition have significance. This world is characterised by flux and uncertainty and is not about equilibrium. This view incorporates Schumpeterian and Evolutionary perspectives and sees competition in terms of the different kinds of behaviours engaged in by enterprises to get competitive advantage (Metcalfe, 2000). It does not relate to market structure measured by the number of enterprises, as equilibrium theory does.

Following from the theoretical divide, views on the ways in which competition policy ought to work also vary. These are reviewed in Singleton (1986; 1997). The equilibrium approach to competition policy judges the degree of competition in an industry in relation to the notions of perfect competition and monopoly. It views performance of an industry in terms of profitability and sees this varying with different degrees of market structure and conduct. The Chicago school of antitrust challenges the notion, central to the structure-conduct-performance approach, that market behaviour and performance are related strictly to market power (Peltzman, 1976; Stigler, 1971). They view competition as a process, and concentrated market structures and dominant enterprises are products of the process of competition, forcing the least able to leave the market (Bork, 1979). According to this school it is the threat of entry that forces existing enterprises to enhance efficiency and pursue product and process innovation. A key element to this process is the absence of government-induced barriers to entry and exit (Singleton, 1997). While the Chicago school reflects a

general antipathy to government intervention in competitive markets, it does not advocate an abolition of competition policy (Godek, 1998).

The Austrian and Evolutionary schools, drawing on the influence of Schumpeter, view competition as a dynamic discovery process in which rival entrepreneurs seek new profit opportunities in a world that is constantly changing. In this respect, it is successful innovation that permits enterprises to outcompete rivals and dominate markets for a while. These dominant positions are constantly being challenged and high profits are regarded as a signal that enterprises are succeeding and the competitive process is thriving. In this perspective competition policy ought not to prohibit or penalise enterprise behaviour that might be regarded as efficient in a dynamic sense, although it does agree that policy ought to ensure that the playing field is level.

Another view, embodied in much of European competition policy, looks to competition policy to protect new entrants, and particularly small enterprises, from the rivalry of larger enterprises (Singleton, 1997). It has also been argued that this view of competition policy is linked to the need to disperse economic power because this in turn is linked to political influence (Boner and Krueger, 1991). This view is based on the broad notion that large enterprises wield considerable political power that is gained through influencing policies that end up protecting them from competition.

In defining competition, the focus thus far has been on viewing the strength of competition between enterprises as a function of their behaviour. The strength of competition between enterprises, however measured, is also conditioned by a wider set of factors, such as the state of the physical infrastructure in an economy, the extent of financial development, and the general regulatory and institutional environment for industry and trade. Policies towards these, together with antitrust policy concerned with the preservation of the competitive process between enterprises, form the overarching framework for competition policy considerations.

A useful framework for considering competition policy is provided by Carlin and Seabright (2001). They suggest that competition can be viewed in terms of rivalry in relation to the acquisition of assets and rivalry in their use. The different approaches to competition policy

can then be characterised according to the relative emphasis that each places on the incentives for the acquisition of assets versus incentives for their use.

Much of the traditional neoclassical approach to competition policy has been on ensuring that owners and managers of productive assets use them in efficient ways. Charging prices above marginal costs has been viewed as a major source of allocative inefficiency. The Chicago and other schools have tended to place greater emphasis on removing constraints to the efficient acquisition of assets. This later emphasis is reflected in the increasing use of auctions and competitive tendering processes for allocating such assets. It is, however, the uncertainty attached to knowing how these assets, once acquired, will be used in the future that gives cause for potential concern.

This framework is used in the rest of the paper to examine a number of policy-related propositions drawn from the theoretical literature on competition and competition policy, mostly developed within an OECD context, and to relate them to the development needs and conditions found in developing countries. The objective is to develop a clearer understanding of the priorities for research into competition policy issues in developing countries

THEORY OF COMPETITION POLICY

Competition analysis developed in the 19th Century and the literature on it has grown ever since, with particular spurts in the 1930s, with the development of the theory of imperfect competition (Robinson, 1933; Chamberlin, 1933; von Stackelberg, 1934) and in the 1950s with the application of game theory (Nash, 1951). Useful reviews are contained in McNulty (1968), Vickers (1995), Neumann (2001) and Metcalfe (2002). Nevertheless, the theoretical literature concentrating on competition policy is still in the early stages of development compared with regulation theory (Rey, 2001). In particular, relatively little attention has been given to issues relating to implementation. Much of the effort has focussed on an analysis of the interaction of enterprises, involving collusion and mergers, with less attention to policy design. Furthermore, the theoretical literature comes almost exclusively from Europe and the US, and in so far as an institutional context is embodied, that principally relates to the processes and institutions that have developed in those systems. When issues relevant to developing countries are raised, there is often no attempt to adapt the theoretical framework to the particular conditions of developing countries comparable to attempts by those involved in the macroeconomics of development (Taylor, 1983; Agenor and Montiel, 1996). A useful

start has been made by Rey (1997) in examining some of the implications of the theoretical literature on competition for developing countries.

Three policy-related propositions are examined affecting the potential acquisition of assets and the use of existing productive assets. These relate to entry and exit conditions in markets, collusion between enterprises, and concentration and mergers.

Free entry and exit conditions for enterprises improves market performance

Significant barriers to entry may exist in the form of government-induced barriers, structural barriers and entry-deterrent strategies of incumbent enterprises. Government-induced entry barriers include trade restrictions, regulations, price controls and procedures for the allocation of inputs. These arrangements have formed the basis for arguments that government-induced restrictions have opened the scope for rent-seeking activities by interest groups, particularly through attempts to seek preferential treatment (Frischtak, 1989). Structural barriers include legal and geographical barriers and the need for high sunk costs. Sometimes the high cost of the latter can be offset through fiscal mechanisms (Baumol, Panzer and Willig, 1982). Strategic entry deterrence occurs through predatory pricing, product differentiation and advertising (Dixit, 1982).

Entry of efficient new enterprises increases competition and can stimulate innovation, and provide incentives for existing enterprises to improve their productivity. It can also cause poor performers to leave the market and release resources for others (Geroski, 1995). Entry of new enterprises can also serve as a vehicle for the introduction and diffusion of innovation which embodies new products or processes that create new supply and demand conditions in markets (Geroski, 1991)

Contestable markets theory also indicates that under certain conditions the threat effect of potential new entry, as opposed to actual entry, can influence existing enterprises to change their behaviour (Baumol, 1982). The argument for the contestability of a market was based on potential entrants having access to the same technology as existing enterprises and there being no sunk costs, along with free entry and exit in markets.

Empirical research in OECD countries shows that entry rates are higher in sectors experiencing higher growth in profits and output and slower in industries where economies of

scale are significant; capital requirements, research and development costs, business risk and concentration levels are high. Evidence also shows that small-sized new entrants fail to survive as much as larger and often more mature enterprise entrants (Siefield and Evans, 1994; Lipczynski and Wilson, 2001).

The orthodox economic theory suggests that enterprises with homogenous cost functions will be deterred from entry into an industry when there is an increase in the intensity of competition (Tirole, 1988). Carlin and Seabright (2001) discuss a recently developed model by Aghion and Schankerman (2000) that is used to examine the effects of competition on performance. The model uses an imperfectly competitive framework and new and existing enterprises are characterised by asymmetric production costs. They demonstrate that low cost enterprises will be induced into the market, even though rents are lowered by greater competition, since they will be able to acquire a larger share of the market. The conditioning factor to achieve this result is provided by potential entrants and existing enterprises having different productivity levels. This implies that policies that set out to improve the competitive environment by removing credit constraints and improving infrastructure, can have the overall effect of introducing productivity-enhancing entry.

Collusion is anticompetitive and ought to be banned

The literature on collusion has several strands. Considerable attention has been given to issues relating to formal cartels, which considers their optimal size, the potential gains from being inside and outside of them, and their weaknesses (Stigler, 1966). These largely concern agreements to fix prices. Orthodox models typically predict that outsiders will benefit from the formation of cartels (D'Aspremont, Jacquemin, Gabszewicz and Weymark, 1983). Cartel members gain when all members of the industry are included (Selten, 1973). Stigler (1964) examined the factors that facilitate effective collusion. The central proposition states that successful collusion occurs when there exists an efficient method of policing the agreement. Cheats benefit unless they are detected and once detected, they will cease to violate the terms of the agreement in fear that loyal members in the agreement will retaliate, even though the offender faces no obvious penalties. Williamson (1975) likened collusion to a problem of contracting. Enterprises would devise their own means to enforce and punish deviant behaviour.

Of greater interest to competition agencies is the literature on the factors that determine implicit collusion, rather than explicit collusion found in cartels, referred to as tacit collusion. The problem facing competition agencies is how to detect it and what enforcement approach to use when collusion is discovered. Detection and proof of collusion involve significant information problems. Enterprises know whether they can collude or not, while competition agencies do not. Competition agencies can generally observe prices but not costs, and they can undertake investigations at a cost. Models incorporating asymmetric information can be found in reviews by Tirole (1992) and Laffont and Martimort (2000). Besanko and Spulber (1989) model the application of this information constraint by assuming that the competition agency has access to some information but not all. Their model provides insights into the design of policy. They conclude that an optimal policy is conditioned by the timing of an investigation into potential collusion. It ought to take place when prices are high since this will deter low-cost enterprises from adopting high prices.

In practice, competition agencies often design leniency programmes to allow favourable treatment if an enterprise informs: this is known as a 'revelation mechanism'. If a revelation can produce hard rather than soft information, then a competition agency can in principle encourage an enterprise to report collusion, rewarding the informant, and using the information against the remaining enterprises. Otherwise an investigation may take place and lead to financial penalties for all if evidence of collusion is found, although the probability may be quite low given the practical difficulties of detection.

The effectiveness of such revelation mechanisms appears to depend on the extent to which the industry can again collude once a revelation has been made. According to Rey (2001) if enterprises cannot collude at this stage, then the threat of financial penalties will work to deter collusion. If they can collude at this stage, revelation approaches will not work since non-selected enterprises would have an incentive to bribe the selected one and induce it not to report collusion. In this case financial constraints on competition agencies may prohibit the possibility of further iterative examinations.

The effectiveness of investigations may also be linked to the provision of leniency programmes and the seriousness of prosecutions of those found to collude. Motta and Polo (2000 cited in Rey, 2001) model enforcement as a function of the resources available to a competition agency and point out that the offer of leniency can improve on the performance

of an investigation as long as there is a high commitment to prosecute the remaining offenders. This is needed to convince enterprises that it is in their interest to report.

Another strand of the literature on tacit collusion examines the role played by capacity constraints facing enterprises. Conventional analysis suggests that enterprises can maintain collusive prices if they believe that setting prices lower than their rivals would lead them into a price war, which given similar cost functions, would adversely affect their future profits. In this case a potential benefit from a deviation from a collusive agreement would be offset by longer run losses associated with a price war. Capacity constraints could affect these propositions in two principal ways. First, the existence of capacity constraints may reduce the incentive to deviate from an agreement, and second, they may affect the severity of a price war, in both cases then reinforcing the effect on collusion. These conclusions are largely based on previous studies that have assumed that all enterprises have the same capacity.

The policy conclusions that result from this type of analysis are as follows. Any merger activity facilitates collusion because it reduces the number of competitors, making it easier to win support for a collusive agreement among fewer enterprises. Therefore, a policy of break-up or divestiture to other competitors will make collusion more difficult to sustain. This analysis may be alright if capacity constraints are not serious considerations. This policy outcome is reinforced by the application of conventional tests for concentration, derived from static analysis, which typically associate symmetry in market shares with greater competition. The much referred to Herfindahl index to measure concentration predicts that, for a given number of enterprises, a more symmetric configuration of market shares is more likely to be competitive ie the index is at a minimum for a symmetric configuration.

Compte, Jenny and Rey (2000), following on from previous analyses by Mason, Phillips and Nowell (1992) and Lambson (1994) examine the implications for collusion when asymmetric rather than symmetric capacity constraints are assumed. They also associate market shares that most facilitate collusion with those that are proportional to capacities (Rey, 1997). They show that a merger can make asymmetries in capacity worse when it involves the largest enterprise, and therefore can hurt the potential for tacit collusion. This is because the key issue for maintaining tacit collusion is to prevent the large enterprise from deviating. But a merger that increases asymmetry will result in smaller enterprises losing their ability to

retaliate because capacity has been transferred to the larger enterprise. This, in turn, may increase the large enterprise's potential to gain from deviating from an agreement if it initially had a capacity constraint. If this is the case, then forcing the larger enterprise to divest part of its capacity to other competitors may actually end up facilitating collusion rather than reducing it.

The analysis of concentration based on embodying asymmetric capacity constraints may therefore be more pro-competitive than a static analysis that assumes symmetry. The creation of greater concentration with asymmetric capacity constraints may hurt rather than increase the potential for collusion, while remedies that seek symmetry between competitors, while avoiding dominant positions, may facilitate tacit collusion.

Mergers and acquisitions increase market power and ought to be controlled

Lipczynski and Wilson (2001) identify three main types of mergers. Horizontal mergers occur when enterprises producing similar products come together. Vertical mergers occur when enterprises combine their resources at different stages of production and hence involve enterprises that are both supplier and producer or producer and retailer. Conglomerate mergers occur when enterprises combine their resources that are producing different goods and services.

A horizontal merger means that the assets of rival enterprises come under the control of a single enterprise. This implies that their strategic behaviour can be coordinated. In the absence of cost savings resulting from the merger, conventional theory presumes that the merger, by reducing the intensity of competition, will be anticompetitive, by generating higher prices and lowering consumer welfare. This is more significant if entry barriers exist, since it is argued that existing firms will be under less pressure to reduce prices in response to new rivals. The merged enterprise will also have less incentive to increase output or capacity when a rival reduces output. Conventional analysis also indicates that mergers can be pro-competitive if a merger leads to more equal-sized enterprises, since these are likely to behave more competitively than unequal-sized enterprises (Gans, 2000).

In the analysis of mergers there then is a requirement to balance the potential gains in efficiency due to the merger against the potential welfare losses resulting from the increase in market power. Merger control, therefore, requires an assessment about future conduct, and is

in contrast to the approach to price-fixing agreements between enterprises, which is essentially an ex-post exercise. There is little consensus on how to handle the trade-off between the efficiency gains and welfare losses from mergers. The efficiency gains resulting from mergers are argued largely on the basis of economies of scale and scope and the sharing of know-how. The costs are modelled in terms of the market power effects of mergers on output and prices.

Rey (2001) points to two directions in which the theoretical literature has attempted to help merger policy. First, through models that have specifically attempted to model the trade-off between efficiency gains and economic power. Farrell and Shapiro (1990) show under certain conditions that merger raises prices. They devise a simple test, based on market shares, to show the likely external impact of mergers on consumer surplus and outsider profits, and conclude under limiting conditions that a small reduction in output has a net positive effect on consumers and owners. If a merger were to be proposed when outsiders are highly concentrated, it is likely that the merger is motivated by a desire to reduce costs rather than by an attempt by the merging enterprises to increase their market power. This analysis has been criticised for overly relying on specific assumptions, and for the practical application for merger policy, for requiring a significant amount of information on supply and demand conditions (Rey, 2001). Development along these lines would require incorporating the information problem into models.

The second approach consists of developing more practical guidelines for assessing the impact of a merger on market power. Dansby and Willig (1979) show that the average mark-up in an industry is related to measures of concentration, using the Herfindahl index, based on the sum of squares of enterprises' market shares. The Herfindahl index is used as a screening device by some competition agencies.

The application of quantitative criteria that are essentially derived from static models, has led to the accusation that attitudes towards merger control may become too rigid and ignore potential efficiency gains that would be derived from a more dynamic analysis and one that takes into account such factors as the risk of collusive or predatory behaviour.

COMPETITION POLICY AND DEVELOPING COUNTRIES

So far a number of propositions from the literature on competition policy have been discussed with a view to examining the policy implications for developing countries. These consisted of three critical areas relating to the problems encountered by competition agencies in attempting to ensure competitive processes work, namely market concentration and mergers, collusion and entry and exit in markets. Each of these will be used to analyse the problems confronting competition agencies in developing countries, pointing to gaps in knowledge and ways forward for further research.

Entry and Exit

Undoubtedly, government-erected barriers to entry continue to be significant in developing countries. This was recognised by the World Bank in its Development Report in 1991, and again in 2001 (World Bank, 1991, 2001). The 2001 Report states that in developing countries

> 'the main institutional barriers to domestic competition are government regulations on exit and entry of firms. Even in the tradeable sector, international competition may not lend to domestic competition, partly because institutional barriers to competition, such as government regulations in product and factor markets that deter firm entry, exit, and growth. Excessive and costly government regulations also facilitate corruption and lead to adverse distributional consequences by inducing workers and firms to escape into the informal sector.'
>
> (World Bank, 2001, p135).

Dominant enterprises in developing countries may arise directly from government industrial policy in developing countries, and in particular, from private rent-seeking behaviour (Khemani and Dutz, 1995). This evolution of enterprises differs to that portrayed by Schumpeter and rather than being efficient, government assistance may have maintained inefficiently operating enterprises that, in turn, seek further government protection from competition.

The extent to which these barriers have been reduced with respect to trade restrictions, regulatory entry and exit constraints and price controls remains unclear, and in some cases attempts to deregulate and introduce liberalisation measures may have resulted in new regulations replacing old ones, and achieving the same effect. Clearly, it is widely recognised that the implementation of reform programmes has been uneven (McGillivray and

Morrissey, 1999). Explanations for the failure to reform have also varied. Governments in many developing countries have had very limited institutional capacities to implement reform (Addison, 2002). Political factors relating to the lack of commitment to reform and unrealistic expectations of donor agencies about how easy it is to implement reforms have contributed to their slow implementation. Significant obstacles to reforming conditions for entry by enterprises into markets continue to be mounted by particular interest groups in the public sector, resisting competition for public enterprises, and by powerful private sector lobbies wishing to protect their markets (World Bank, 1995; Shirley and Walsh, 2000).

Governments in developing countries continue to have regulations that prevent enterprises from closing. Inadequate bankruptcy rules and policies to keep ailing public enterprises going for social and political purposes continue to be used. The current orthodoxy views these practices as wasteful, arguing that it is tying up resources that could potentially be used more productively elsewhere to stimulate employment and income growth, and that suitable social safety nets can better be provided through fiscal transfers and retraining and relocation schemes for displaced workers. While such arguments are attractive, they are dependent on well functioning fiscal systems and institutions that can deliver appropriate training. These may also be inadequately supplied as evidenced in the case of Ghana, Malawi and Bangladesh (Quartey and Kayanula, 2001; Khan, 2002).

Knowledge of the size distribution of enterprises in developing countries and what is happening over time to entry and exit patterns is at best patchy and clear conclusions are difficult to derive. Studies undertaken at various times for a limited number of countries are summarised in Tybout (1998). Studies cited have mainly used periodic industrial census data of varying quality, supplemented by information on micro enterprises, where it has been available. In summary, these studies suggest that small and micro enterprises are more predominant compared to the pattern exhibited in industrialised countries and medium-sized enterprises are relatively fewer. Various studies of rates of turnover appear to suggest that larger enterprises are challenged by newly formed enterprises more often than was earlier believed to be the case (Roberts and Tybout, 1996). And, contrary to earlier predictions, market shares are less secure among larger enterprises in developing countries compared to those in OECD countries. There are, however, many unanswered questions concerning whether enterprises entering a market have lower productivity than those already in it, and whether inefficient enterprises are being replaced by more efficient ones. Even these studies

have limited country coverage and reveal that most movement in and out of a market occurs among smaller-sized enterprises, leaving us to conclude as Tybout (1998) observes, that small producers never seriously challenge the larger entrenched incumbents.

Explanations for these patterns of size distribution and entry and exit are equally varied. First, at the broad level poor infrastructure, underdeveloped financial markets and overly complex administrative arrangements may provide formidable obstacles, not just to the entry prospects of new enterprises, but to the growth prospects for smaller existing enterprises. Second, Carlin and Seabright (2001) have argued that policies designed to favour small enterprises may have inadvertently contributed to the failure of small enterprises to grow into larger ones in developing countries, because these favourable measures have been abruptly removed once enterprises reach a certain size. The threshold for this is set fairly low in most developing countries. Recent survey results from Ghana and Malawi support the view that few small enterprises graduate to be large ones (Cook, Kayanula, Nixson and Quartey, 2002). Third, small enterprises surviving to graduate into medium-sized enterprises then tend to face a new set of regulations which may constrain their growth. Larger enterprises are more able to absorb the higher fixed costs associated with dealing with more extensive sets of regulations (Tybout, 1998).

Arguments such as these have led some policy analysts to argue that the primary focus for competition policy in developing countries ought to be a long run, entry-based one (Singleton, 1997). Whether or not this entails a concern for the competitive process or for the survival of small enterprises, as in the German model, is questionable, given the difficulties facing smaller enterprises not only for entry but for growth, compared to larger enterprises. An entry-based approach to competition policy may, however, provide an opportunity to look more carefully at ruling out entry deterrence of dominant enterprises per se without a more critical examination of potential benefits that may be derived from intense rivalry between fewer competitors.

Collusion

Concentration levels are higher in developing countries than in industrialised countries. A few large enterprises dominate many sectors and account for the vast majority of output. In sectors where economies of scale are important, competition and market dominance may be spread across one or two larger enterprises. Obstacles to entry and higher levels of

concentration make it easier for enterprises to collude. An assessment of the potential for collusion ought then to form an integral part of competition policy in developing countries, whether it is merger that is being considered or the growth and expansion of existing enterprises.

High levels of concentration do not necessarily reduce competitive pressures; this all depends on how the intensity of competition is measured. What number of enterprises suffices to ensure enough competition is taking place is a controversial issue. Relatively few enterprises may exert enough competitive pressure when products are reasonably close substitutes. But if geographical and informational barriers exist, then competition may be quite low. In developing countries the poor condition of local infrastructure may put into question whether or not national markets exist, and fewer enterprises may supply local markets in collusion. This collusion may also extend to local officials who may gain from erecting and maintaining regulatory barriers that limit competition.

The ability to deal with collusion in developing countries is complex. First, many developing countries do not have a history of combating collusion. Competition laws forbidding collusion have only just begun to be introduced. Second, the means to detect collusion may be fairly limited. The lack of civil society institutions, such as consumer lobbies and the absence of a relatively open media and an auditing tradition, may seriously undermine the disclosure of collusive practices. Third, Laffont (1998) has argued that the attempt to police collusion in developing countries may end up in replacing collusion between enterprises with a more complex process, involving collusion with the regulators. Fourth, the lack of financial resources available to competition agencies weakens their ability to investigate cases of collusion. This may reflect a financial constraint, an underestimation of the resources required for a serious competition policy, or lack of commitment.

The risk of collusion may, however, vary between developing countries and developed ones. While the lack of a traditional focus on issues of collusion may be prevalent in developing countries, there may be important economic factors that are also relevant for considering the scope for collusion. First, the pattern of market shares in various sectors of developing countries may exhibit a more asymmetric pattern than in developed countries. According to Bernheim and Whinston (1990) enterprises with asymmetric market shares will find it more difficult to collude. Second, capacity constraints are quite significant in developing

countries. Both are likely to be reinforced by the existence of foreign enterprises. Institutional barriers and weak capital markets increase the cost of investment and make it more difficult for enterprises to expand (Rey, 1997). When enterprises face similar capacity constraints they may be less inclined to defect from a collusive agreement, but when asymmetric capacity constraints are encountered the effect may be in the other direction. Smaller enterprises may then be unable to prevent the largest enterprise from exiting a collusive arrangement. A competition policy pursued by many developing countries that is based on a structural rather than a behavioural approach to concentration and dominance (ie using the Herfindahl index to measure concentration) may actually increase the probability of collusive behaviour by creating an environment where market shares are more equal (ie symmetric). In this environment the incentives to deviate from a collusive agreement are reduced.

Third, the transactions costs of collusion may be significantly lower in developing countries. Laffont (1998) points out that this may be due to an implicit risk aversion by economic agents and to the perception that monitoring technologies used by competition agencies are fundamentally weak.

Mergers

Developing countries have witnessed an increase in merger activity in recent years. In domestic terms this may itself be a response to the removal of measures to protect enterprises from competition (Carlin and Seabright, 2001). When protection is removed it may lead to inefficient enterprises exiting the market. Alternatively, it may encourage some form of rationalisation of an industry, principally through mergers. Mergers, acquisitions, joint ventures and international alliances have also been on the rise internationally. There have been large mergers in the telecommunications field, but also involved are other major infrastructure sectors, such as power, water and transport. A key feature of these mergers is the desire by the various participants to retain some ownership control. It has also permitted enterprises that were previously focussed on a domestic market to expand and gain access to a partner market. Frequently, these have included a local partner in a developing country. Significantly, in the case of Latin America, mergers involve foreign investment and are critically linked to privatisation, particularly in the infrastructure and finance sectors (Amann, E., De Paula, G., and Ferraz, J.C. 2002). The increase in this type of activity is facilitated by the acceptance that the private sector plays a much more important role in the infrastructure

sector than in the past, and a recognition that this may be the most efficient route to acquiring latest technologies. Foreign investment may also view local partnerships as a means to acquire local knowledge about markets and regulation.

Whatever type of merger activity is going on, the competition agency's foremost problem is an information one. Enterprises have privileged information about their motivations for merger, in terms of efficiency gains, market power and the potential for collusion, which the competition agency wants. Getting this information is obviously difficult. The merging enterprise wants to get their merger approved while the competition agency wishes to ensure that the merger takes place without increasing the risk of abusive behaviour. With exceptions, the tradition of obtaining information about the prospects for a proposed merger from rivals and consumers is absent, ie. not least because of the lack of an institutional presence with which consumers are able to exert their voice, other than in an ex-post sense through their purchasing decisions. The information constraint is also compounded by the relative lack of expertise in relation to competition policy and limited resources to improve the situation. In some countries qualified staffing levels are extremely low in competition agencies and budgets are generally small in relation to other regulatory functions.

The Farrell and Shapiro (1990) approach to merger analysis offered a way for competition agencies to trade off the anti-competitive and cost-reducing effects of a merger. Their tests are based on pre-merger market shares and demand elasticity that indicates whether or not a privately profitable merger is socially beneficial. As indicated, the tests require specific information on market conditions. Given the difficulty with the types of information required to assess merger cases, the use of undertakings has become increasingly widespread. They act as a signalling device and a kind of guarantee that the information is accurate (Fels, Gans and King, 2000). If a competition agency is concerned that a merger will result in a reduction in output, an undertaking by the merged enterprise not to reduce its output after the merger reveals information about their intentions. If in the post-merger situation, costs are reduced and output is increased then nothing is binding. A judgement is still required by the competition agency over what undertaking is to be established and to what extent a merging enterprise is willing to offer an undertaking rather than forgoing a merger. Effective undertakings may, therefore, help competition agencies evaluate mergers without having detailed knowledge of industry structure and the magnitude of potential cost reductions. Breaching an undertaking still requires a penalty and the ability to enforce a penalty in part

depends on how well the undertaking is specified. An undertaking may easily be manipulated by the merged enterprise if it is poorly specified and, therefore, becomes ineffective. There may be a concern that future entrants may be deterred from coming into an industry when there is an undertaking. A potential competitor may face an aggressive competitor as the merged enterprise will be forced to, for example, maintain output after the entry of the new enterprise. This may make entry less profitable. Even if new entry leads to a substantial increase in output of other enterprises, then the undertaking on the merged enterprise could be lifted as the threat of reduced competition from the merger may have subsided. The use of undertakings, however, may be viewed as an entry point for regulatory capture if they are poorly specified and lack enforcement.

CONCLUSION

The discussion has focussed on the rivalry for the acquisition of assets in terms of entry and exit constraints and on the rivalry in the use of assets by considering the factors that facilitate collusion. It has also recognised the significance of how the wider competitive environment might critically affect these rivalries. Precisely how high barriers to entry are, and the forms that they take, are still very researchable issues as far as developing countries are concerned. A systematic evaluation of entry and exit barriers and their effect on competition in developing countries is required.

It has been argued that the scope for collusion may be higher in developing countries than industrialised ones. How much higher, and how low might be the transaction costs of collusion in developing countries is one area that is relatively untouched by empirical or even theoretical research. Knowledge of the importance and of ways in which asymmetric information and asymmetric capacity constraints affect collusion are also empirically unexplained but explorable.

Given the newness of competition laws and the establishment of competition agencies in most developing countries, it can only be expected that research into their effectiveness is so limited. Attempts are beginning to be made to investigate more systematically what this competition policy terrain looks like in terms of laws, institutions and policies. Hopefully this will provide some insights into policy and practice. The next stage in examining the effectiveness of competition policy is to ask does it make a difference? This requires an assessment of the outcomes of policy decisions and the reasons why they were made – a

much more complex step, and one that has not even been done that extensively in industrialised countries. It will throw light on whether or not existing policies contribute to promoting or stifling the competitive process and hopefully will lead to the design of more effective competition policy.

Finally merger activity in developing countries has been on the increase in recent years. Data on merger activity is available but there has been little systematic attempt to examine cross country differences in the pattern of mergers taking place in developing countries. Once established, researchers could begin to ask what factors influence and condition the decisions of competition agencies and what have been the resulting outcomes, in terms of competition and anticompetitive behaviour in markets, once mergers have taken place.

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