

ECONOMIC THEORY, APPLICATIONS AND ISSUES

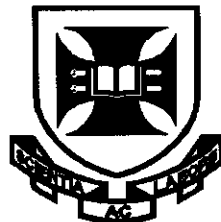
Working Paper No. 8

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Implications for Economic Efficiency,
Growth and Diversity**

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Clem Tisdell and Irmi Seidl

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NICHES AND ECONOMIC COMPETITION: IMPLICATIONS FOR ECONOMIC EFFICIENCY, GROWTH AND DIVERSITY

Clem Tisdell and Irmi Seidl

ABSTRACT

Examines the relationship between market niches and economic competition and explores the consequences of niches for economic efficiency, growth and diversity of commodities. Concepts of niche in everyday use, ecology, economics and business management are compared. Factors giving rise to market niches, some of which are institutional, are identified, their links with barriers to entry and mobility are discussed and common negative views about their consequences for competition and economic efficiency are outlined. However, the availability of niches can potentially have a very positive impact on economic growth and development as well as on the diversity of commodities. New measures of diversity of commodities are introduced. Economic globalisation involves institutional change that reduces the availability of niches and threatens long-term economic growth and diversity of commodities. Niches also provide frictions in economic systems and may have stabilizing properties.

Keywords: diversity of commodities, entry barriers, globalisation, market competition, niches

JEL Classification

F020, L000, O300

NICHES AND ECONOMIC COMPETITION: IMPLICATIONS FOR ECONOMIC EFFICIENCY, GROWTH AND DIVERSITY

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1. Introduction

Concepts of niches in relation to market competition and development are used more in the business management literature than in the economic literature. However, niche concepts are basic to much ecology and are widely applied to the analysis of competition between species (inter-specific competition) and less frequently to intra-specific competition (Begon and Mortimer, 1986).

Mainly niche concepts are applied in economics to market competition and the development of markets. In contrast to ecology, they are most widely applied in economics to competition between firms and businesses in the same industry but sometimes they are also applied to competition between some industries or segments of industries.

Ecologists give greater attention to the availability of niches and their exploitation as a factor in biological evolution and biodiversity compared to the attention given by economists and specialists in business management to the role of market niches in economic growth, development and the diversity of available commodities. However, the creation of market niches via product differentiation is considered by von Mises as one of the most important means of competition, and thereby, of economic development (von Mises, 1961). This view is also apparent in the works of Schumpeter (e.g. 1954).

Nevertheless, while product differentiation can be important in the competitive market process in creating market niches that give economic power and above normal profit to their incumbents, they are not sufficient for these latter purposes. This is evident from the theory of monopolistically competitive markets as developed by Chamberlin

(Chamberlin, 1950). In such markets, all firms in equilibrium produce slightly differentiated products and only make normal profits because there are no significant barriers to entry. Monopolistically competitive firms are unlikely to be a powerful force for economic development given Schumpeter's point of view (Schumpeter, 1954, Ch. 8). The economic incentive to innovate depends on there being some impediments to rapid use of innovation by entities other than the innovator.

This article first discusses concepts of the niche in everyday use, in ecology, in economics and business management, and throughout this essay, ecological theories involving niches are mentioned because niche-concepts have wide application in ecological analysis. This essay is further developed by investigating the ways in which economic niches arise and the relationship of market niches to market competition and economic efficiency. Then the consequences of the presence of niches for long-term economic growth and the diversity of commodities are considered. The relationship of the discussion with economic globalisation and the extension of markets is then explored.

2. Concepts of the Niche in Everyday Use, in Ecology, in Economics and Business Management

The Australian Reference Dictionary (Oxford University Press, Melbourne, 1986) provides two meanings of the word niche: (a) a shallow recess, especially in a wall, and (b) a comfortable or suitable position in life or employment. *The Macquarie Dictionary* (Macquarie Library, St. Leonards, N.S.W., 1981) describes the second meaning as "a place or position suitable to the individual or thing". This meaning suggests that the individual or thing has a degree of security or sustainability in a niche. In a competitive situation, a niche may provide some protection to the occupier(s) from competition from others.

Ricklefs (1993, p. 582) defines a niche in ecology as "the ecological role of a species in the community; the many ranges of condition and resource qualities within which the organism or species persists, often conceived as multidimensional spaces". Therefore,

as in everyday usage, there are two dimensions to the meanings: one relating to the position of the organism in the community, and the other relates to the environments in which the organism can live or persist. Ricklefs (1993, p. 455) further explains: “Ecologists use the term niche to express the relationship of the individual to all aspects of its environment – and hence the ecological role of the species within the community. The niche describes the range of conditions and resource qualities within which the individual or species functions”.

Begon and Mortimer (1986) follow Hutchinson (1978) in defining an ecological niche in a similar way but also link it to the survival of future generations of the species, and to competition between species. Members of a population that experience less competition from other species in their niche have a higher chance of reproducing as a group.

The concept of the niche in economics is not well defined. But a firm can be said to have a market niche if there are barriers to other firms entering its market, and it will have greater security in that niche the greater are such barriers. This usually implies the firm has market power. This is compatible with the concept of the niche introduced in discussions of Hotelling’s theory of competition in relation to location of product differentiation (Hotelling, 1929; Hartley and Tisdell, 1981, Ch. 9; Harter, 1996). For example, Harter (1996, p. 329), modifying Hotelling’s model, suggests that under uncertainty firms try increasingly to differentiate their products because they “gamble on finding a market niche with less fierce competition”.

It follows that firms in perfectly competitive markets do not have any niches. Furthermore, in the long-term, firms in monopolistically competitive markets will have no secure niche because entry is easy according to Chamberlin’s theory (Chamberlin, 1950). Under monopolistically competitive conditions, firms will, however, supply slightly differentiated products and in the short-term, all may be said to occupy niches because in the theoretical short-term entry is ruled out. Under imperfect competition, all firms occupy niches in the short-term, and for some forms of imperfect competition,

such as pure monopoly, can occupy market niches in the longer-term – much depends on the extent of barriers to entry. In that respect, John Maurice Clark (1940) was of the view that in the very long-term, barriers to entry under imperfect competition are not major and therefore firms in imperfectly competitive markets are not assured of a long-term secure niche.

Overall, it seems that the concept of a niche for a firm in economics can be associated with the ability of the firm to stave off competition from other firms and consequently gain a degree of security or 'comfort'.

In the business management literature, the concept of a niche is used in a different way. It refers to a feature of the demand side of the market. In OECD (1995a, p. 16), it is said that "a pure niche market is a market segment, small, narrow and specific" and it is mostly associated with product differentiation. A niche market contrasts with a mass market that is large and wide. OECD (1995a) suggests that niche markets are more likely to arise when the preferences of consumers are heterogeneous and the overall market shows a significant degree of segmentations. Some examples are given in OECD (1995b).

The importance of 'niche marketing' as an aspect of management planning is clear from an article by Tonge et al. (1998). In a survey of super-growth medium companies, they found that niche marketing and early entry into growth markets were low strategic considerations of managers in their sample. Their results differ from earlier management studies, which they cite. In these studies, "the niche market and early entry strategies were seen as important for success due to the avoidance of head on competition, ensuring a dominant market position" (Tonge et al. 1998, p. 845).

To some extent, the above mentioned studies have been stimulated by the hypothesis advanced by Michael Porter (Porter, 1980, p. 145-148; 1979; Caves and Porter, 1977) that - in the case of low economies of scale - small firms may be more profitable than large firms where they can find strategic niches protected by mobility barriers, or

barriers to entry to niches. However, as Bradburd and Ross (1989, p. 259) point out, “if larger firms can easily imitate the activities of their smaller rivals, smaller firms will no longer be left in peace to exploit their niches.” Hence, it is clear that even in business management analysis, the economic consequences of a niche depend on the extent to which barriers to entry or mobility exist.

Nevertheless, given the importance of the niche in ecological analysis, it is surprising to find so little consideration of it in economics even in a special issue of *Structural Change and Economic Dynamics*, 8(4), 1997 looking at relationships between biology and economics. In fact, the niche is not mentioned at all and yet one might have been relevant to at least the articles by Eldredge (1997), Hannon (1997) and Hodgson (1997).

3. Origins of Economic Niches and their Relationships to Competition and Economic Efficiency

The existence of an economic niche for a business depends on barriers to entry of competitors. Barriers to entry may arise from several sources. These include

- (a) institutional or government arrangements which restrict entry or competition in an industry, such as in some cases, tariffs or registration requirements (exogenous factors);
- (b) natural barriers such as spatial distance and economies of scale (exogenous factors);
- (c) barriers created by a business itself via product promotion (endogenous factors);
and
- (d) barriers involving absolute cost differences, as may arise from patent rights or exclusive access to especially productive natural resources (endogenous factors).

Caves and Porter (1977, p. 241) emphasize that incumbent firms in an industry or industry niche often act to deter the entry of others as a part of their competitive behaviour. This entry-detering behavior is aimed at securing their market niche. Thus,

barriers to entry to an industry are often partly endogenous and partly structural. Very often they involve both factors, e.g. research and development activity designed to produce patentable products, thereby 'fencing out' potential competitors. Caves and Porter (1977, p. 246) point out that sales promotion by incumbent firms in a market is often used "to shrink the demand curve facing an entrant. Examples include the proliferation of brands (e.g. soap, cigarettes) to fill the various ecological niches in consumers' preference spaces and leave no viable ones for entrants, and the use of restrictive arrangements within the distribution sector that leave the entrant with less effective or economical channels" (Caves and Porter, 1977, p. 246).

In general, such barriers to entry (cf. Bain, 1968) have been of concern to economists because they limit economic competition and can give rise to economic inefficiency in resource allocation in Pareto's sense. In particular, liberal economists are critical of the effects on economic efficiency of institutional and government restrictions. The theoretical preference of liberal economists is for the elimination of all market niches, that is elimination of all barriers to entry to a market and all barriers to mobility within a market. However, as discussed below, such an approach could have disastrous consequences for long-run economic development.

The hostility of many economists to barriers to entry protecting business is reflected in the social welfare statements of Caves and Porter (1977). They state (p. 249) that barriers to entry or mobility "are not only structural and exogenous but partly endogenous, and the resource commitments that enlarge them yield a private return in excess of their social productivity. Therefore, the market failure associated with impeded entry is a combination of allocative inefficiency (restricted output) and technical inefficiency (socially excessive cost)." This implies that incumbents restrict supplies in their niche to earn above normal profit (thus there is allocative inefficiency) and their costs are inflated by their expenditure on entry-detering behaviour (and thus technical X-inefficiency also occurs).

However, this ignores the possible gains in ‘dynamic efficiency’ or economic growth due to impediments to competition of the type discussed by Schumpeter (1954, Ch. 8) and considered in the next section of this article. This is a major oversight.

Furthermore, Caves and Porter (1997) argue strongly that the concept of barriers to entry should be extended so that it becomes “a general theory of the mobility of firms among segments of an industry, thus encompassing exit and intergroup shifts as well as entry” (Caves and Porter 1977, p. 241). Thus, they envisage an industry, the market of which is segmented to some extent.

That does of course raise issues about how the limits of an industry are defined. As Triffin (1941), writing much earlier than Caves and Porter, shows there is no easy answer to defining the boundaries of an industry. The somewhat different focus of Caves and Porter (1977) on barriers to entry, as for example compared to Bain (1968), has enabled new hypotheses to be tested, e.g. why in some industries are small firms more profitable than large ones - is it because they have defensible market niches? (see Porter, 1979, 1980). In many respects, however, the concept of ‘barriers to mobility of firms’ seems purely to be an extension of the original barriers to entry concept rather than a completely new concept.

The economic value of an industrial niche to an incumbent(s) depends upon the extent to which it can be used to deter competition from other businesses. This competition could come from direct entry of other businesses into production within the niche, from the import of substitute products from outside the niche or from the development of a new substitute product by another industry. Thus, it may be that even the concept of industrial mobility needs to be extended so that account is taken of all impediments to market competition, including impediments to the extension of markets. In general, economic globalisation reduces market impediments and hence market protection for businesses in economic niches.

There is an important link between the existence of an economic niche and the degree of competition experienced in a market. Indirectly, the importance of this is also recognized in the business management literature. In this regard, OECD (1995a, p. 16) points out:

A successful (niche) segmentation strategy has several advantages for producers. A firm can reduce the intensity of competition by targeting and securing a defensible segment in the market. In doing so, it can virtually exclude substitute products of new entrants. However, the strategy also has risks in a competitive market. These narrow markets are often vulnerable to the changes in taste and demand. Moreover, if demand grows and profits increase beyond a certain point, mass marketers may find new ways to enter the market and compete.

Thus, even in the business management approach, the niche is linked with market competition. Consequently, it is a short step to recommend use of market niches in regional development as a means to stave off market competition and promote development, in particular of rural areas (OECD, 1995a, 1995b; Ilbery and Kneafsey, 1999).

In ecology, niches are already linked to the inter-specific competition. Competition between species is often reduced by their occupation of different niches. Nevertheless, the realized or actual niche of a species is frequently narrower than its fundamental or potential niche due to competition from other species (Begon and Mortimer, 1986, p. 6). The fundamental niche of a species is the niche that a species would occupy in the absence of competition from other species.

The extent to which competition between species makes full use of available resources by species is a subject of interest to ecologists. Overlap of niches by species ensures full utilisation of the range of resources available for supporting life. Competitive pressures (inter-specific and intra-specific) combined with natural selection generally results in some overlap of niches, even though each species is likely to have a non-

overlapping zone in its niche. In this exclusive zone, competitive exclusion occurs (Hutchinson, 1978).

Gallagher (1993) applied the ecological theory of niche overlap and exclusion to the UK supermarket industry supplying differentiated products. His analysis of competitive exclusion is analogous to that of May (1974) who analyses the niches occupied by a species competing in the environment for a fixed resource. Gallagher (1993, p. 64) assumes that "individual firms compete for the 'resource' of market demand. Each firm is assumed to occupy a particular niche within the market place, defined by its inherited technological ability to produce a range of goods of particular qualities". However, he does not analyse why or how a particular niche is chosen by a firm.

It is noticeable that ecologists do not seem to have used the concept of a barrier of entry to a niche. However, there has been a broad research and debate on the conditions of a niche (breadth), on the occupiers' patterns of resource consumption (including morphological particularities adapted to gathering resources), and the dispersal patterns of potential invaders (plant systems) to examination of conditions under which other species could invade a niche (e.g. Hutchinson 1979, Pianka, 1981). In economics, the persistence of niches seems to be due largely to barriers to entry. The importance of barriers to entry of new firms for the security of a market niche can be further illustrated by varying Hotelling's competitive model (Hotelling, 1929), which is sometimes used in economic discussions of niches (Harter, 1996). Hotelling's model assumes a uniform and continuous spatial distribution of buyers of a product. Suppose, however, that this is not so but buyers exist only in two spatially separated countries or regions, A and B. A might be for example a centre country or region and B a peripheral one. Theoretically, these might be represented by separate points in space.

Suppose that production of product X has commenced at region A but not B and that production at A is competitive. Then, if constant returns to scale occur, product X will sell for its per unit cost of production (inclusive of normal returns) at location A. If C_a represents the per unit cost of production at location A, the price of the product there is

$P_a = C_a$. Where T represents the per unit cost of transporting this product to location B, the product will sell in B at a price of $P_b = C_a + T$.

Now suppose production of X becomes possible in location B where demand is assumed constant to be inelastic. However, initially constant costs per unit of production in B are higher than in A so $C_b > C_a$. Production in B will only become economic if $C_b < C_a + T$. Thus, the existence of transport costs creates a niche in location B by providing some protection to this market.

If a monopoly is initially established in region B, the monopolist will maximise profit by charging a price fractionally less than $C_a + T$. The monopolist thus engages in limit pricing which excludes all imports.

However, the monopolist will not have a secure niche in region B if entry is easy. If $C_a + T > C_b$, a monopolist is able to earn about normal profit in region B. But if entry is easy, new firms will commence production in region B. Entry would then drive the price of product X in region B down to C_b , the per unit cost of production there.

Furthermore, observe that the niche market in region A can be threatened in two other ways. The niche at B will be undermined if the cost of production at location A falls more rapidly (say as a result of differences in technical progress) at location A compared to B, or if the cost of transport from A to B falls sufficiently. Of course, a reverse threat in the longer term is also possible if production costs at location B fall more rapidly than at A.

This example underlines the point that the security of a niche, the value of a niche to those occupying it, depends heavily on barriers to entry and market competition. It is difficult to see in economics how any real analytical content can be given to the concept of the niche unless it is related to these features.

4. Consequences of Niches for Long-Term Economic Growth and Development

Given the view, expressed above, that an economic niche gives a business some protection against competition from other firms, it can provide a footing for research and development and innovation by those businesses occupying economic niches. Thus, the presence of niches can be favourable to economic growth and development. A niche market often enables some above normal profit to be made by its occupier and this can help finance the costs and risks of innovation, provide a degree of market protection for innovation if applied within the firm's economic niche. This observation seems accord with Schumpeter's view that the process of creative destruction is not possible in a situation of perfect competition, but on the other hand, the permanent possible threat of competition, i.e. the destruction of niches, accelerates the process of creative destruction (economic development) (Schumpeter, 1954, Chs. 7, 8).

However, the mere fact that a business occupies a market niche does not ensure that it will be innovative. The extent of its innovation may depend on attitudes towards inventiveness and innovation in society, the degree of economic security which it enjoys in its niche, whether or not it has or can develop the expertise necessary to undertake successful invention and innovation, and whether there is much scope for profitable innovation in its industry. If there is a negative attitude to innovation in society, if the firm is very secure in its niche, if it lacks and is incapable of developing innovative expertise or if the returns to its innovation can be expected to be low, the presence of a market niche will not usually be effective in fostering innovation. On the other hand, in the absence of niches or at least temporary niches to protect innovations, economic incentives for technological progress are very weak. Since no niches exist under perfect (or pure) competition, incentives for research and development and innovation are virtually absent. Indeed, they are completely absent if imitation is instantaneous. Hence, the possibility of technological progress under pure competition seems to rely heavily on the presence of some lags in the system and this means that the competition is not fully satisfying the theoretical ideal.

Although economic niches involving some degree of protection from competition play an important role in technological progress, it is likely that there can be too many niches as well as too few to achieve an ‘appropriate’ balance between economic efficiency in resource allocation and economic growth. Similarly, niches may be too secure to ensure this appropriate balance.

For example, if many niches are established, potential economies of scale and specialisation may be lost, the firms occupying niches may be very small in size, and lack the capacity to make major innovations and take advantage of a larger market since geographical market protection may exist. Therefore, the most satisfactory economic system is neither one without niches nor one with an ‘excessive’ number or density of niches, especially deeply entrenched niches. We therefore hypothesise that the presence of niches is necessary for an ideal compromise between static allocative efficiency and economic growth but at the same time an ‘excessive’ number of niches should be avoided (cf. Grabher and Stark, 1997).

The relationship we have in mind can be illustrated by Figure 1. In this purely illustrative diagram, the X-axis provides a measure of economic growth and the Y-axis provides a measure of allocative economic efficiency. A trade-off curve of the type indicated by ABCDE is envisaged. At point A, maximum allocative efficiency occurs but not economic growth because no niches exist in the economic system. As niche availability is increased, economic growth can be traded-off against allocative efficiency up to point C. Further provision of niches providing protection against competition result in outcomes along segment CDE and these are inferior from both an economic growth and an allocative perspective.

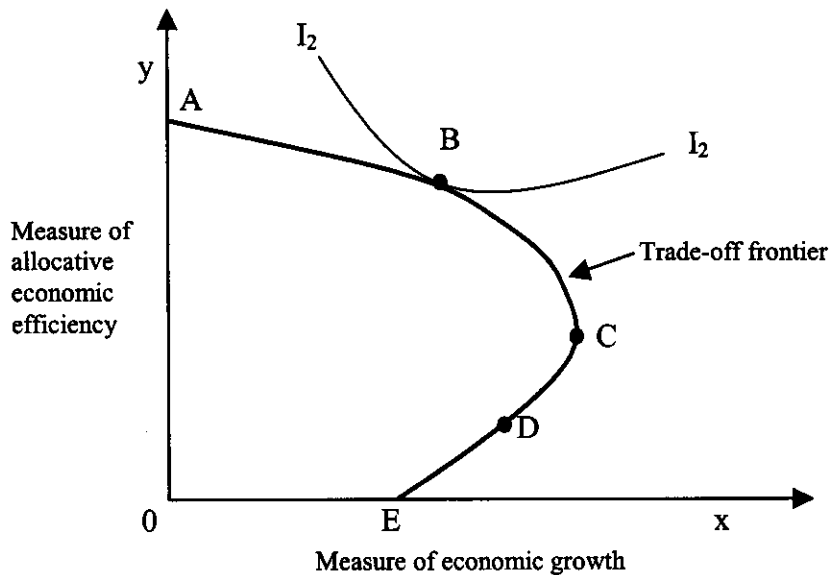


Figure 1 Trade-off between allocative economic efficiency and economic growth associated with niches.

Thus, the efficient set in Figure 1 is ABC, if both allocative efficiency and economic growth are considered to be desirable. Depending upon the desired trade-off between these characteristics, the objective function will be maximised by selecting a combination on curve ABC. It may, for example, be point B. This is so if up to a point, economic growth is a substitute for efficiency in economic allocation and so I_2I_2 is an indifference curve from the objective function.

The presence of niches also plays an important role in the evolution of biological systems. Speciation is likely to grow with an increase in the number of available niches. To the extent also that niches are associated with the geographical isolation of members of a species, this may result in genetic 'random drift' which in the long-term could also increase biodiversity even if environments in the isolated geographical areas are the same (Wright, 1968, 1969, 1977, 1979). Selection, adaptation, and random drift, all appear to play a role in biological evolution. If geographically isolated areas can be regarded as separate niches, then it seems that the greater the diversity of niches the greater the degree of speciation likely to evolve. On the other hand, if niches become very small and species become closely adapted to these, the rate of extinction could rise and there could be biodiversity loss (e.g. due to high adaptation and thereby low elasticity or inbreeding-pressure).

5. Economic Niches and Diversity of Commodities

We are concerned in this section with the extent to which the presence of economic niches favours variety or diversity of commodities. The matter is more complicated than appears to be the case at first sight because diversity has a geographical dimensions, and this is particularly important in relation to economics. We can, for example, consider diversity in local regions, differences in diversity between local regions and its extent globally.

It is possible for the variety of commodities to be relatively limited in any local region, but for the type of commodities available between regions to be very different, and therefore for global diversity to be high. Let A-diversity be a measure of the average diversity at the local level, let B-diversity measure the degree of difference in product variety between local regions and let C-diversity refer to global diversity. It is possible then for A-diversity to rise at the same time as B-diversity and C-diversity decline.

These concepts have some, but not complete analogy, with similar biodiversity concepts in ecology. A-diversity most closely corresponds to alpha diversity: the number of species in a single community (Primack, 1993, p. 50). B-diversity has some correspondence with gamma diversity and beta diversity in ecology. The former refers to change in biodiversity with changes in geographical space or regions whereas the latter refers to changes in biodiversity along an environmental gradient (Primack, 1993, p. 50).

We propose the hypothesis that the number of realised economic niches is on the whole inversely related to the degree of market competition. In other words, the availability of market niches declines as market competition intensifies. Given this view, consider the possible relationship between increase of intensity of competition (niche reduction) and diversity of commodities.

Global diversity of commodities may take the form indicated by curve ABC in Figure 2. This indicates that at first with the widening of markets, global diversity of commodities increases but as niches increasingly disappear, diversity begins to decline. But even after global diversity (C-diversity) declines, local diversity (A-diversity) may continue to rise in the manner indicated by curve DEF in Figure 2. However, eventually

local diversity can also be expected to decline as global diversity declines. In this scenario, the range of commodities becomes more uniform between regions but the number of commodities available at each location rises initially as isolated niches disappear. This implies that, on the whole, B-diversity can be expected to decline as a market extension involving greater competition occurs, although it is conceivable that there might also be initial increase in B-diversity with some market extension. Curve GHJ in Figure 2 represents a possible relationship for B-diversity.

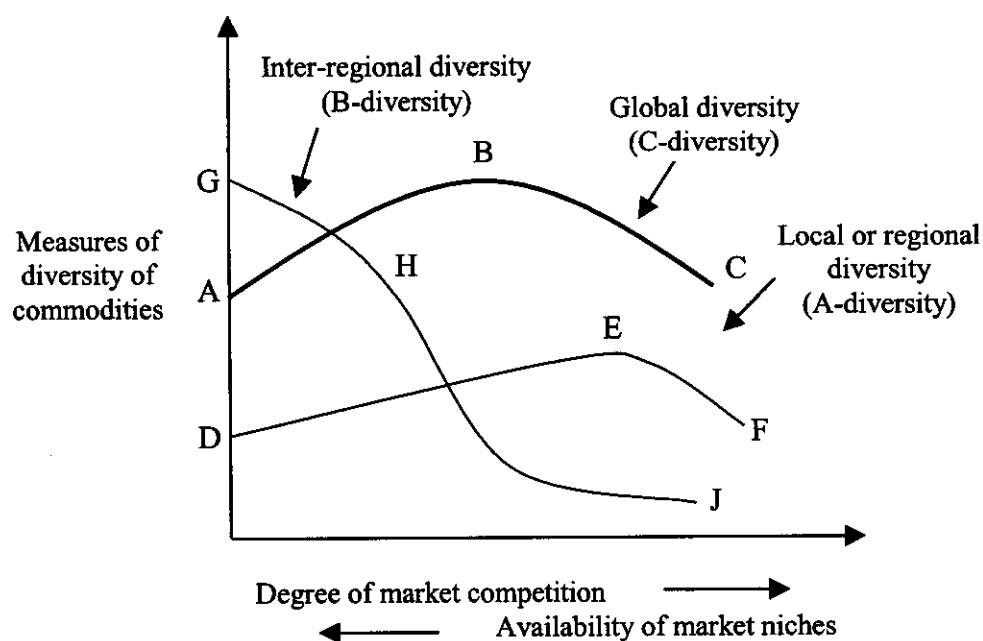


Figure 2 Theoretical relationships between diversity of available commodities and the extent of competition or the availability of market niches.

6. Relevance of this Analysis to the Economic Globalisation Debate

This analysis suggests that market making designed to intensify market competition can become counter productive from an economics point of view when carried to extremes. In the end, it tends to reduce global diversity of commodities and eventually the degree of diversity of commodities available at the local or regional level. This can be just one adverse consequence of extreme economic globalisation. A more serious consequence from a traditional economic perspective is that economic globalisation carried to extremes may actually reduce the number of trajectories of economic and societal evolution and reduce economic growth in the long-term. As illustrated by Figure 1,

improved short-term allocation of resources may be purchased at the expense of long-term economic growth.

The question of whether economic globalisation reduces or increases the diversity of commodities is controversial. This seems to be due to different expectations concerning the depth of diversity. For instance, Nestlé's Chief Manager responsible for national specific blends of Maggi and Nescafé argues that globalised markets provide high product diversity (Anonymous, 2001), whereas the French sociologist Baudrillard (1970) contends that the industrialised economy does not create 'real' differences in products and fosters uniformity of human beings. This latter position is shared by many who critically follow the growing global alignment of life and consumption patterns. A further critical point in this discussion about the diversity of commodities is that each economic sector is differently affected by the economic globalisation. Hence, general judgements can always be challenged by some situations that do not conform. Nevertheless, as indicated in Figure 2, general tendencies are likely to be present.

Another possible outcome of disappearing niches through economic globalisation is the jeopardy of the competition system itself. In this vein, the Group of Lisbon, founded to analyze the role of competition in the process of economic and social globalisation, states: "To survive, the system needs a diverse multiplicity of players. The logic of competitiveness leads to reducing diversity within the system by eliminating all those who are unable to resist the dominant forces. In this sense, it contributes to the development of social exclusion: the noncompetitive people, firms, cities, and nations are left behind" (The Group of Lisbon, 1995, p. 98). This reasoning is supported by an analogy between ecological selection and economic competition widely used in economics (e.g. Hirshleifer, 1977). Lewontin (1982, p. 151) writes: "[S]election is like a fire that consumes its own fuel [...] unless variation is renewed periodically, evolution would have come to a stop almost at its inception." Hence, the disappearance of niches or their reduction as a result of growing competition may undermine the competitive system itself (cf. Tisdell, 1999).

Also, extreme market extension and increasing loss of market niches may play an important role in supporting uncertain investments and innovation. This is especially likely because in many markets, economic globalisation leads to a situation in which

few producers occupy very large market shares, whereas comparatively many producers share the edges of the markets. Yet, the small producers at the edges often do not have the capital and capacities to carry out major investments and innovations, and simultaneously, the markets of the large producers are insufficiently protected to encourage large and uncertain investments (e.g. pesticide sector). This constellation can also result in narrow lock-ins in technological development.

Moreover, in an uncertain world it should also be observed that competitive systems without frictions are very prone to market instability. Thus, frictions (of which niches are one type) may help in stabilising economic systems (cf. Tisdell, 1972). Perfectly (purely) competitive systems involving a higher degree of homogeneity and few, if any, frictions are liable to be unstable and therefore, may not even result in an ideal allocation of resources in the short run. Heterogeneity of behaviour (Laselle et al., 2001), damped responses and market frictions can play important roles in helping to stabilise markets in an uncertain world. The existence of diversity (heterogeneity) and the presence of frictions (barriers) play an important role in ensuring stability in several ecological models. Similar situations occur in economics but are not allowed for in neoclassical economic analysis.

This observation is also consistent with Kaufman's finding from empirical research on regional diversity that diversity will dampen the effects of shocks both positive and negative (Kaufman, 1993, p. 312) even though the sources of the economic diversity are different in the above-mentioned case. With regard to the medium and long term, Grabher (1994) claims for the regional context that redundancy (inefficiency) must be sought for by keeping various development paths open so as to assure the regional capacity of adaptation to change.

A further benefit from the niche analysis in the economic globalisation debate is that it highlights the type of barriers to entry and mobility being torn down and provides new perspectives on the consequences. On the whole, tariffs and quantitative trade regulations have been most debated as impediments to globalised markets but attention has been increasingly turning to elimination of non-quantitative barriers to trade. Thus, most remaining market niches are under threat from globalisation. This is the result of the ongoing neo-liberal restructuring of our economies and political systems, the

deregulation of political activities and the retreat of governments and their administrations from previous political tasks to make place for private initiatives and markets, the tendency to centralise remaining political tasks, and the penetration of the efficiency and competition principle to all walks of economic and non-economic life as part of the economic globalisation process (cf. The Group of Lisbon 1995). For instance, the centralisation of the European food agency, called for by the food industry (Anonymous 2001), would remove national food regulations that provide niches for (small) national producers. Hence, the niche analysis highlights factors that determine the permeability of markets and influence the interests of market-holders in wishing to defend or to extend their market shares. The consequences of these factors and interests are readily revealed by the niche approach, whereas the traditional market and competition approach often veils such phenomena.

7. Concluding Comments

Niche-concepts have been used less frequently in economic analysis than in ecology, and the niche concept is used in the business management literature in a narrower way than in economics or ecology. It is difficult to define an economic niche precisely but in this article it is associated with the existence of market power and barriers to entry (or mobility) of competitors or competitive commodities. Realized economic niches can play an important role in economic growth and development even though they may reduce economic efficiency in short-run resource allocation. The availability of market niches influences the diversity of commodities available. It is speculated that as economic globalisation proceeds, it may at first increase the global diversity of commodities but as it further intensifies it is likely to reduce this diversity, and a similar pattern may occur at the local or regional level. Nevertheless, it seems highly probable that the economic globalisation process will cause inter-regional diversity of commodities to decline. It is apparent that concepts of the economic niche are useful in considering important effects of the extension of the competitiveness of markets, such as occur with economic globalisation, which have been neglected in economic analysis. These effects are not captured by neoclassical economic analysis.

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References

- Anonymous (2001) "Essen Sie mal rohe Kartoffeln". Spiegel-Gespräch mit Nestlé-Chef Peter Brabeck-Letmathe. *Der Spiegel*, 7 May 2001, Hamburg, 108-117 ["Try to eat raw potatoes". Interview of Spiegel (German weekly) with Nestlé Chief Manager Peter Brabeck-Letmathe].
- Bain, J. (1968). *Industrial Organization*, 2nd edition, John Wiley, New York.
- Baudrillard, J. (1970) *La société de consommation, ses mythes, ses structures*, Denoël, Paris.
- Begon, M. and Mortimer, M. (1986) *Population Ecology: A Unified Study of Animals and Plants*, 2nd edition, Blackwell Science, Oxford.
- Bradburd, R. M. and D. R. Ross (1989) "Can Small Firms Find and Defend Strategic Niches? A Test of the Porter Hypothesis." *Review of Economics and Statistics* 71(2), 258-262.
- Caves, R. E. and M. E. Porter (1977) "From Entry to Mobility Barriers." *Quarterly Journal of Economics* 91, 241-289.
- Chamberlin, E. H. (1950) *The Theory of Monopolistic Competition*, Harvard University Press, Cambridge, MA.
- Clark, J. M. (1940) "Towards a Concept of Workable Competition." *American Economic Review*, 30(2), 241-256.
- Eldredge, N. (1997) "Evolution and the Marketplace", *Structural Change and Economic Dynamics*, 8(4), 385-398.
- Gallagher, M. (1993) "Niche Overlap and Limiting Similarity: An Ecological Approach to the Theory of the Firm." *Journal of Evolutionary Economics* 3(1), 63-77.
- Grabher, G. (1994) *Lob der Verschwendung. Redundanz in der Regionalentwicklung: Ein sozioökonomisches Plädoyer*, Edition Sigma, Berlin [*Praise of extravagance. Redundancy in regional development: a socio-economic final speech*].
- Grabher, G. and Stark, D. (1997) "Organizing Diversity: Evolutionary Theory, Network Analysis and Post-socialism", *Regional Studies*, 31, 533-544.
- Hannon, B. (1997) "The Use of Analogy in Biology and Economics. From Biology to Economics, and Back", *Structural Change and Economic Dynamics*, 8(4), 471-488.
- Harter, J. F. R. (1996) "Hotelling's Competition with Demand Location Uncertainty", *International Journal of Industrial Organization*, 15, 327-334.
- Hartley, K. and Tisdell, C. (1981) *Micro-Economic Policy*, Wiley, Chichester, UK.

- Hirshleifer, J. (1977) "Economics from a Biological Viewpoint." *The Journal of Law and Economics* 20(1): 1-52.
- Hodgson, G. M. (1997) "Economics and Return to Mecca: The Recognition of Novelty and Emergence", *Structural Change and Economic Dynamics*, 8(4), 399-412.
- Hotelling, H. (1929) "Stability in Competition", *The Economic Journal*, 39, 41-52.
- Hutchinson, G. E. (1978) *An Introduction to Population Ecology*, Yale University Press, New Haven.
- Ilbery, B. and Kneafsey, M. (1999) "Niche Markets and Regional Speciality Food Products in Europe: Towards a Research Agenda", *Environment and Planning A* 31(12), 2207-2222.
- Kaufman, R. K. (1993) "An Empirical Exploration of the Relation Among Diversity, Stability, and Performance in Economic Systems", *Structural Change and Economic Dynamics*, 4(2), 299-313.
- Laselle, L., Svizzero, S. And Tisdell, C. (2001) "Diversity and Market Stability." *Economia Internazionale*, (in press).
- Lewontin, R. C. (1982). *Human Diversity*, W.H. Freeman, New York.
- May, R. M. (1974) "On the Theory of Niche Overlap", *Theoretical Population Biology*, 5, 297-332.
- Mises, L. von (1961) "Markt", *Handwörterbuch der Sozialwissenschaften*. E. V. Beckerath (ed), Fischer, Stuttgart, Vol. 7, 131-136.
- OECD (1995a) *Niche Markets as a Rural Development Strategy*, Organisation for Economic Cooperation and Development, Paris.
- OECD (1995b) *Niche Markets and Rural Development: Workshop Proceedings and Policy Recommendations*, Organisation for Economic Cooperation and Development, Paris.
- Pianka, E. R. (1981) "Competition and Niche Theory", *Theoretical Ecology*, R. M. May (ed.) Blackwell Science, Oxford, 167-196.
- Porter, M. E. (1979) "The Structure Within Industries and Competitive Performance." *Review of Economics and Statistics* 61, 214-227.
- Porter, M. E. (1980) *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. The Free Press, New York.
- Primack, R. B. (1993) *Essentials of Conservation Biology*, Sinauer Associates, Sunderland, Mass.
- Ricklefs, R. E. (1993) *The Economy of Nature*, W. H. Freeman, New York.

- Schumpeter, Joseph A. (1954) *Capitalism, Socialism and Democracy*, 4th edition, Allen & Unwin, London.
- Svizzero, S. and Tisdell, C. A. (2001) "Concepts of Competition in Theory and Practice." *Revista Internazionale di Scienze Economiche e Commerciali*, **68**(2), 145-162.
- The Group of Lisbon (1995). *Limits to Competition*, MIT Press, Cambridge, MA.
- Tisdell, C. A. (1999) "Diversity and Economic Evolution: Failure of Competitive Systems." *Contemporary Economic Policy*, **17**, 156-165.
- Tisdell, C. A. (1972) *Microeconomics: The Theory of Economic Allocation*, John Wiley, Sydney.
- Tonge, R., Larsen, P. C. and Ito, M. (1998) "Strategic Leadership in Super-Growth Companies – A Re-appraisal", *Long Range Planning*, **31**, 838-846.
- Triffin, R. (1941) *Monopolistic Competition and General Equilibrium Theory*, Harvard University Press, Cambridge, MA.
- Wright, S. E. (1968, 1969, 1977, 1978) *Evolution in the Genetics of Population*, Vols. 1-4, Chicago University Press, Chicago.

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