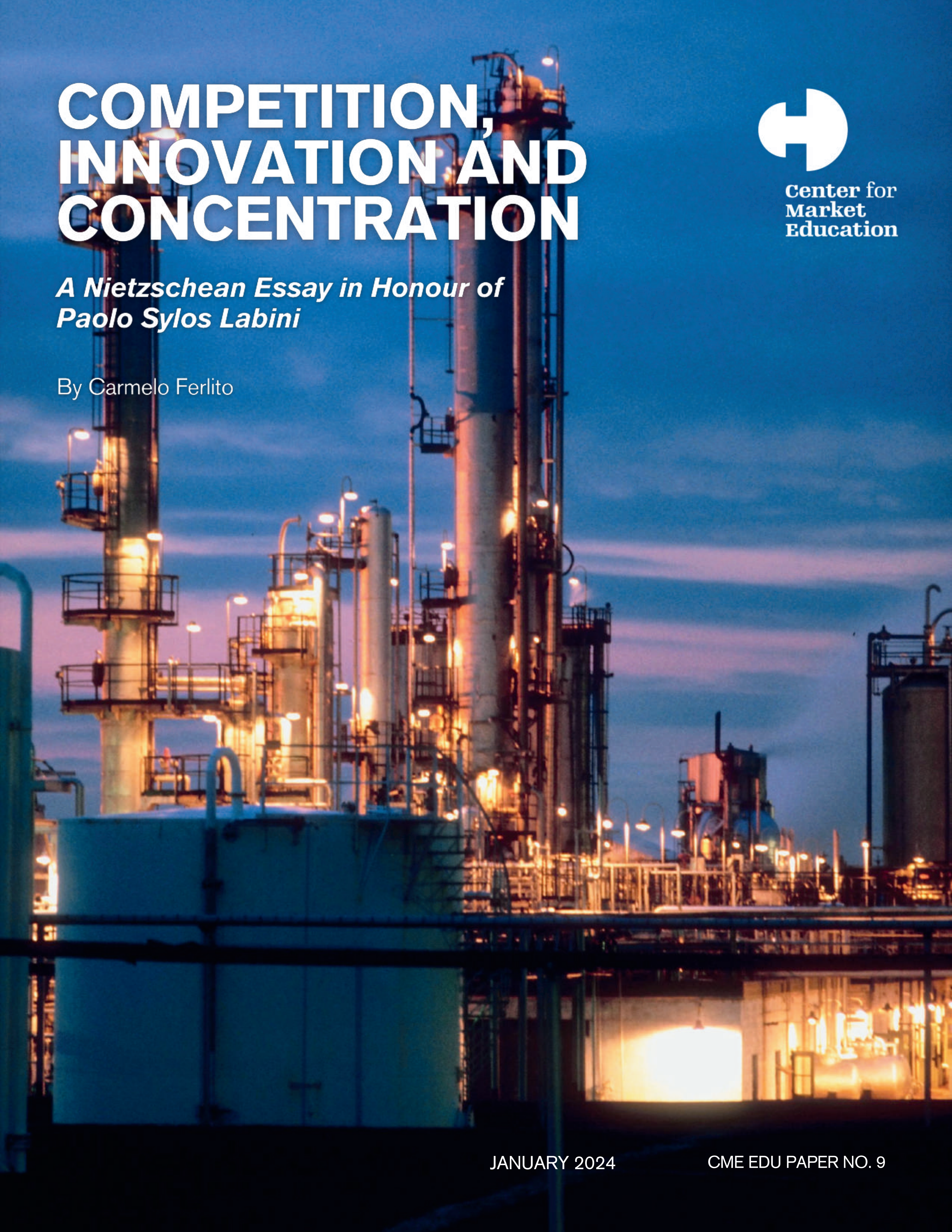

COMPETITION, INNOVATION AND CONCENTRATION

A Nietzschean Essay in Honour of Paolo Sylos Labini

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1.
COMPETITION: TRUE AND FALSE

When I was an economic student at the University of Verona, Italy, in the early 2000s, the microeconomics textbook (which is still in my library) listed the following features to describe a market of *perfect competition*:

- atomization of the market;
- homogeneity of the product and the anonymity of producers and consumers;
- absence of barriers to firms' entry and exit from the market;
- perfect mobility of production factors;
- perfect knowledge of the technical and economic conditions of the moment;
- no firm can achieve extra profits in the long run (Baranzini and Marangoni, 1995, pp. 544 and 545)[1].

In another very popular textbook, we read that, under perfect competition, the only thing that a firm could decide is how much to produce (Varian, 2007, p. 365).

Like most students, I was mainly concerned with passing the exam, and then I digested the definition and its theoretical implications[2]. It was only after reading O'Driscoll and Rizzo (1985) that I realized how blind I was and how far from the true nature of competition the definition learned in university was. «It is well known that in economic theory "competition" means the opposite of its meaning either in ordinary language or in commonsense economic discussions of competition»; indeed the «theory of perfect competition analyses the state of affairs or equilibrium conditions that would exist if all competitive activity ceased. *It is not an approximation but the negation of that activity*» (O'Driscoll and Rizzo, 1985, pp. 136-137).

It is evident – even to the eye of the layman – that the features described by my textbook (and criticized by Hayek (1946)) are the opposite of a process of competition: Why compete if there is no profit? Where does competition stand if products are homogeneous and the market share is marginal? Is not the very same idea of competition based on differences? Can we compete if knowledge is already perfect and perfectly possessed by everybody? Such an idea of competition looks more like the description of a static ideal state of affairs. Or it serves even better to describe a centrally planned economy, which is the very opposite of an economic system ruled by market competition.

Among other economists, Schumpeter (1911) recognized – in line with Adam Smith and the classics – that competition is a process and not a state, and this process is based on the conflict between non-homogeneous elements rather than on elements of equality: a competition is won by virtue of a difference, even if it was simply luck or corruption. And for the Austrian economist, the real competitive process is consumed in the struggle between innovations trying to emerge – driven by the entrepreneur with the means provided by the banker – and traditional products and methods trying to survive – supported by common and predominant sense.

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[1] Similarly, Hayek (1946, p. 107) observed that the textbook features of perfect competition are:
«1. A homogeneous commodity offered and demanded by a large number of relatively small sellers or buyers, none of whom expects to exercise by his action a perceptible influence on price.
2. Free entry into the market and absence of other restraints on the movement of prices and resources.
3. Complete knowledge of the relevant factors on the part of all participants in the market».
As we shall see, Hayek too criticized such a view, noting these features simply describe a state of affairs that is eventually brought about by the process of competition, while the «moving force of economic life is left almost altogether undiscussed» (Hayek, 1946, p. 106).

[2] For sake of simplicity, we will refer to the textbook vision as neoclassical perfect competition.

Echoing his teacher Schumpeter, the Italian economist Paolo Sylos Labini (1957, p. 52) observed that the «neoclassical economists' perfect competition has never existed anywhere. The static hypothesis and the application of marginal analysis within it led the neoclassical school to ascribe to competition certain characteristics (in particular, perfect homogeneity of goods, horizontal demand curve for the individual firm) which severely limit the realism of the concept».

If the market is a dynamic process unfolding in time, then such a process cannot have a pre-determined outcome, as is instead assumed in equilibrium models (Lachmann, 1986, p. 4).

But Schumpeter was not the only economist to develop an alternative vision of competition and the market process[3]. What is competition beyond the fictional textbook representation? We will focus here on some economists who tried to explain competitions in a way that is closer to the actual meaning that people associate with the word itself; it is in fact immediately clear that the word competition cannot refer, like it happens in conventional textbooks, to something static and to a state of affairs; competition is indeed *dynamic* and *a process* (as recognized by classical economists; Sylos Labini, 1957, pp. 52-53). Furthermore, it is ontologically based on differences.

1.1. HAYEK: COMPETITION AS A DISCOVERY PROCESS

The passage from O'Driscoll and Rizzo (1985) is in line with the critics of the neoclassical vision of competition developed by Nobel laureate F.A. von Hayek (1946, p. 105), who was writing that «what [economists] have been discussing in recent years under the name of 'competition' is not the same thing as what is thus called in ordinary language». In fact, the Austrian economist explained, «what the theory of perfect competition discusses has little claim to be called 'competition' at all», because «this theory throughout assumes that state of affairs already to exist which, according to the truer view of the older theory, the process of competition tends to bring about (or to approximate) and that, if the state of affairs assumed by the theory of perfect competition ever existed, it would not only deprive of their scope all the activities which the verb 'to compete' describes but would make them virtually impossible» (Hayek, 1946, p. 105). A couple of decades later, Hayek (1968, p. 9) was further stressing that «for some 40 to 50 years

[3]For a complete overview of various theories of the market, see Mitchell (2014).

[economists] have investigated competition primarily under assumptions which, if they were actually true, would make competition completely useless and uninteresting», adding that «*wherever* we make use of competition, this can only be justified by our not knowing the essential circumstances that determine the behaviour of the competitors».

The problem of knowledge is essential in this regard: in the process of competition, different economic agents are trying to achieve completely separate plans, and therefore it would be absurd to think that they possess the same *data* (Hayek, 1946, p. 106). The point is that, with the assumptions of perfect competition, both buyers and sellers are supposed to be already fully informed about consumers tastes and preferences (sellers) and different products available in the market (buyers); instead, according to a "realistic" vision of competition, those data, those pieces of information, constitute precisely what needs to be discovered through the process of competition; they are a dynamically emergent outcome rather than a datum.

Therefore, for Hayek (1946, pp. 115-116) competition is «essentially a process of the formation of opinion: by spreading information, it creates the unity and coherence of the economic system which we presuppose when we think of it as one market. It creates the views people have about what is best and cheapest, and it is because of it that people know at least as much about possibilities and opportunities as they in fact do. It is thus a process which involves a continuous change in the data and whose significance must therefore be completely missed by any theory which treats these data as a constant».

In a nutshell, Hayek (1968) defines competition as a discovery procedure, which means a process through which sellers and buyers discover each other, generating an emergent order characterized by the search for mutual consistency of plans.

1.2. KIRZNER: COMPETITION AS AN (ENTREPRENEURIAL) PROCESS

Hayek's vision was further developed by Israel M. Kirzner (1973), according to whom the neoclassical static view of competition is not the proper paradigm to analyse the competitive process. Kirzner's starting point is a «dissatisfaction with the usual emphasis on *equilibrium analysis*» and the «attempt to replace this emphasis by a fuller understanding of the operation of the market as a *process*» (Kirzner, 1973, p. 1). The American economist tried to «look to price theory to help us understand how the decisions of individual participants in the market interact to generate the market forces which compel changes in prices, in outputs, and in methods of production and the allocation of resources. […] The efficiency of the price system, in this approach, does not depend upon the optimality (or absence of it) of the resource allocation pattern at equilibrium; rather, it depends on the degree of success with which market forces can be relied upon to generate spontaneous corrections in the allocation patterns prevailing at times of disequilibrium» (Kirzner, 1973, pp. 6-7).

In line with the criticism I am developing here, for Kirzner it is not possible to refer to competition as a state of affairs, and therefore his attempt was to develop an organic theory of the market as an economic *process* (Kirzner, 1997, p. 61). Consumers, entrepreneur-producers and resource owners are the players in the market; the latter, in turn, is where their interacting decisions, during any period of time, take place. Every player has his own content of (limited) knowledge, tastes and expectations. Depending on their knowledge, tastes and expectations, the players set up their action decisions, or plans. Since, in order to carry out their plans, individuals need to interact, it is only through interaction and though the flow of time that that content of information will be modified and, eventually a revision of decisions can happen.

> During the given period of time, exposure to the decisions of others communicates some of the information these decision-makers originally lacked. If they find that their plans cannot be carried out, this teaches them that their anticipations concerning the decisions of others were overly optimistic. Or they may learn that their undue pessimism has caused them to pass up attractive market opportunities. This newly acquired information concerning the plans of others can be expected to generate, for the succeeding period of time, *a revised set of decisions* (Kirzner, 1973, p. 10).

As defined by Kirzner (1973, p. 10), then, the market process is built up by «this series of systematic changes in the interconnected network of market decisions». Therefore, it is not possible to conceive of a market process in the realm of perfect knowledge. The process arises precisely because of the initial ignorance of market participants and the natural uncertainty of human action. And the process can only happen during the flow of *real time*. With no market ignorance and no review of plans, there is no process at all. This is therefore how Kirzner (1973, p. 12) explained the *competitive nature* of such a process: since from one period of market ignorance to the next ignorance has been somewhat reduced, market participants realize that not only should they implement more attractive opportunities but also that such attractiveness needs to be judged in comparison with the opportunities offered by competitors. When the incentive to offer more attractive opportunities stops, the competitive process stops, too. There is no more room for competition at all in a situation of market equilibrium, such as the one that the neoclassical theory of perfect competition describes.

In the description of such a process, almost incidentally and initially imagining a fictional world in which market participants are unable to learn from their experience, Kirzner (1973, p. 14) introduces a special group of individuals who «*are* able to perceive opportunities for entrepreneurial profits; that is, they are able to see where a good can be sold at a price higher than that for which it can be bought». These are *entrepreneurs*, who «immediately notice profit opportunities *that exist because of the initial ignorance of the original market participants*» (Kirzner, 1973, p. 14). Of course, to describe the real market process, it is not necessary to divide the actors into two rigid groups: one that cannot learn from experience and the other one (entrepreneurial) which instead can. It is indeed realistic to introduce the entrepreneurial aspect as an element of the activities of each market participant. It follows that the market process is essentially entrepreneurial (Kirzner, 1973, p. 15): since *entrepreneurship* is *alertness* to profit opportunities deriving from market ignorance, and the market process is the set of plans revisions which follow the modification of knowledge, the two concepts are intrinsically bound.

1.3. SCHUMPETER: ENTREPRENEURSHIP, INNOVATION AND THE COMPETITION THAT MATTERS

Before Hayek and Kirzner, Schumpeter (1942, p. 78) observed that «[n]either Marshall and Wicksell nor the classics saw that perfect competition is the exception and that even if it were the rule there would be much less reason for congratulation than one might think». The Austrian economist observed that indeed the conditions of perfect competition are fulfilled only in some agriculture mass production, while «as regards practically all the finished products and services of industry and trade, it is clear that every grocer, every filling station, every manufacturer of gloves or shaving cream or handsaws has a small and precarious market of his own which he tries—must try—to build up and to keep by price strategy, quality strategy—"product differentiation"—and advertising. Thus, we get a completely different pattern which there seems to be no reason to expect to yield the results of perfect competition and which fits much better into the monopolistic schema. In these cases we speak of Monopolistic Competition» (Schumpeter, 1942, p. 79). For Schumpeter, monopolistic competition and oligopolies are the new forms of capitalism.

Schumpeter's vision of competition cannot be disjointed, but rather should be derived from its approach to entrepreneurship, innovation and creative destruction. As it is well known, for the Austrian economist, the key analytical point is the concept of economic development: a «spontaneous and discontinuous change in the channels of the flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing» (Schumpeter, 1911, p. 64).

Such changes, moreover, «are not forced upon [economic life] from without but arise by its own initiative, from within», thanks to the introduction of *new combinations* (innovations), which Schumpeter (1911, p. 66) lists under five types: new goods, new methods of production, new markets, new sources of supply of raw materials and industry reorganizations.

If new combinations are the essence of economic development, in order to exercise their disruptive function in economic life, they require what Schumpeter (1911, p. 74) calls the «fundamental phenomenon of economic development». In fact, if the carrying out of new combinations can be called *enterprise*, «the individuals whose function it is to carry them out [are called] "entrepreneurs"». When changes and innovations happen, normal individuals need guidance and, because of the need for such guidance, «the carrying out of new combinations is a special function, and the privilege of a type of people who are much less numerous than all those who have the "objective" possibility of doing it». Entrepreneurs are the special type of persons, with a special behaviour, able to exercise such a guidance[4].

In a nutshell, innovations are changes in the economic system. Entrepreneurs who introduce innovations belong to a special human type because such changes cannot be faced and managed by normal individuals. After innovations are introduced, businessmen face thestruggle to make the innovation win against 'the old way' to do things, against social hostility. In this struggle, it is not the invention that characterized the entrepreneur but his leadership, his ability to master the new situation, and his ability to impose innovations in the otherwise repetitive economic life. This is the reason why Schumpeter (1911, p. 88) stressed that it «is not part of his function to "find" or to "create" new possibilities. They are always present, abundantly accumulated by all sorts of people». While many people see things, the entrepreneur does them.

In such a scenario, disruptive entrepreneurs fight what can be defined as the *competition that matters.* Schumpeter is openly critical of the traditional concept of competition, and it is against it that he clarifies what competition really means, moving away from the simple struggle over prices with which it is often associated.

> The first thing to go is the traditional conception of the *modus operandi* of competition. Economists are at long last emerging from the stage in which price competition was all they saw. […]. But in capitalist reality as distinguished from its textbook picture, it is not that kind of competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest-scale unit of control for instance)—competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives. This kind of competition is as much more effective than the other as a bombardment is in comparison with forcing a door, and so much more important that it becomes a matter of comparative indifference whether competition in the ordinary sense functions more or less promptly; the powerful lever that in the long run expands output and brings down prices is in any case made of other stuff (Schumpeter, 1942, pp. 84-85).

Here we go: competition, for Schumpeter, is not the fight over prices between identical firms producing the same thing, but rather the new combination fighting against the old way of doing things. Such a concept cannot but be dynamic, and indicating a process, rather than a state of affairs.

[4] For clarifications about the link between entrepreneurship and leadership, see Ferlito (2015).

2.

COMPETITION AND ENTREPRENEURSHIP

One of the features that emerged from discussing competition for Kirzner and Schumpeter is that the process of competition cannot be separated from the exercise of entrepreneurship: who "plays" the game of competition? Although we can easily understand how entrepreneurs represent *the* vital element in economic life, it is pretty difficult to find an adequate treatment of entrepreneurship in contemporary economics textbooks. In modern microeconomics, we find a sophisticated theory of the firm, in which an enterprise is often presented as a profit maximiser or a cost minimiser; similarly, different forms of market organization are discussed depending on the number of firms acting there. However, these discussions fail to appreciate the fact that at the very heart of the firms, we find the entrepreneurs, or, at the very least, entrepreneurship. It is almost as if contemporary theory would introduce us to many entrepreneurial masks without attempting to discover the actual entrepreneur's face.

In fact, what we observe in textbook economics is the dehumanization of the market process, while, as mentioned, it is hardly imaginable a market process without individual actions and choices. As Mises (1949, pp. 258-259) put it:

> The forces determining the – continually changing – state of the market are the value judgements of these individuals and their actions are directed by these value judgments. […] the market process is entirely the resultant of human actions. Every market phenomena can be traced back to definite choices of the members of the market society.
> The market process is the adjustment of the individual actions of the various members of the market society to the requirements of mutual cooperation.

Market prices exercise the role of the polar star in such a process, but this is another, although fundamental, story, which I cannot expand here.

2.1. SCHUMPETER AND HIS ENTREPRENEUR-INNOVATOR

As we have seen, for Schumpeter, *new combinations* (innovations) are the main driver of competition and, thus, economic development, thanks to funds provided by bankers. However, new combinations and credit alone are insufficient for the emergence of economic development. A further element is necessary, which Schumpeter (1911, p. 74) called the «fundamental phenomenon of economic development». In fact, if developing new combinations can be called "enterprise", then «the individuals whose function it is to carry them out [are called] 'entrepreneurs'» (Schumpeter, 1911, p. 74). It was at this point that Schumpeter started to develop his famous entrepreneur theory.

But why «is the carrying out of new combinations a special process and the object of a special kind of 'function'» (Schumpeter, 1911, p. 79), called the entrepreneurial function? According to Schumpeter, in the realm of circular flow, economic agents are able to promptly and rationally act and react to given circumstances that repeat themselves over time. *Normal* individuals can face such an environment. But when changes and innovations happen, normal individuals need *guidance* (Schumpeter, 1911, p. 79). Because of the need for such guidance, «the carrying out of new combinations is a special function, and the privilege of a type of people who are much less numerous than all those who have the 'objective' possibility of doing it» (Schumpeter, 1911, p. 81). Entrepreneurs are the special type of persons with a special behaviour who are able to exercise such guidance.

There is another crucial aspect that can be misunderstood, which Schumpeter (1911, pp. 84-91) discussed at length: *leadership*. Calling *innovation* the introduction of new combinations, the Schumpeterian entrepreneur is rightly identified as an *innovator*. The word is not free from ambiguity and misunderstandings. Though scholars have often clarified that innovation is not necessarily a new invention, the risk is high of identifying the entrepreneurial function with the invention of something new. However, an entrepreneur is not an inventor (Schumpeter, 1947, p. 152). The entrepreneur is a special type not simply because he carries out new combinations, but also because, in doing so, he masters a development process that is a process of change. By introducing new combinations into the economic system, entrepreneurs demonstrate that they are capable of acting where normal individuals stop.

According to Schumpeter (1911, pp. 84-87), moving outside the boundaries of the circular flow is difficult and requires special individuals for three kinds of reasons:

> First, outside these accustomed channels, the individual is without those data for his decisions and those rules of conduct, which are usually very accurately known to him within them. Of course, he must still foresee and estimate on the basis of his experience. But many things must remain uncertain; still others are only ascertainable within wide limits, and some can perhaps only be "guessed." […]
>
> Here, the success of everything depends on intuition. […]
>
> As this first point lies in the task, so the second lies in the psyche of the businessman himself. It is not only objectively more difficult to do something new than what is familiar and tested by experience, but the individual feels reluctance towards it and would do so even if the objective difficulties did not exist. […]
>
> The third point consists of the reaction of the social environment against one who wishes to do something new. […]
>
> There is leadership *only* for these reasons.

These features need to be further emphasized. Innovation is a change in the economic system (Schumpeter, 1935, p. 4). Because such changes are difficult for regular people to handle and manage, the entrepreneur who introduces innovations is a special type. In carrying out new combinations, entrepreneurs move the system out of the equilibrium state; additionally, after innovations are introduced, businessmen face the struggle of making the innovation win against "the old way" of doing things, against social hostility. In this struggle, it is not the invention that characterizes the entrepreneur, but his leadership and his ability to master the new situation. This is the reason why Schumpeter (1911, p. 88) stressed that it «is not part of his [the entrepreneur's] function to 'find' or to 'create' new possibilities. They are always present, abundantly accumulated by all sorts of people».

While many people see things, the leader *does* things. It is therefore «more by will than by intellect that the leaders fulfil their function, more by 'authority,' 'personal weight,' and so forth than by original ideas» (Schumpeter, 1911, p. 88).

2.2. KIRZNER: AN ENTREPRENEUR'S ALERTNESS TO PROFIT OPPORTUNITIES

It is only after a brief introduction of the concept of entrepreneurship in the realm of the market process that Kirzner moves on to detail his perspective on the entrepreneur. The first important note he brought out is that entrepreneurship is related to human action and is therefore potentially present in each individual (Kirzner, 1973, p. 31). In particular, as Kirzner developed the market process notion in opposition to an equilibrium approach, the author contrasted entrepreneurial activity with economizing and maximizing functions. «[…] It is my position that this analytical vision of economizing, maximizing, or efficiency-intent individual market participants is, in significant respects, misleadingly incomplete. It has led to a view of the market as made up of a multitude of economizing individuals, each making his decisions with respect to *given* series of ends and means. […] A multitude of economizingindividuals each choosing with respect to given ends and means cannot, without the introduction of further exogenous elements, generate a market process (which involves systematically *changing* series of means available to market participants)» (Kirzner, 1973, pp. 32-33).

The important point raised by Kirzner is that, in such an analytical framework in which ends and means are given, there is no room to study *how* ends and means are decided. To overcome the economizing notion, he went back to Mises's concept of *human action*. It is necessary to quote Kirzner's words in full:

> […] Instead of economizing, I maintain, it will prove extremely helpful to emphasize the broader Misesiannotion of *human action*. As developed by Mises, the concept of *homo agens* is capable of all that can be achieved by using the notions of economizing and of the drive for efficiency. But the human-action concept, unlike that of allocation and economizing, does not confine decision-maker (or the economic analysis of his decisions) to a framework of *given* ends and means. Human action, in the sense developed by Mises, involves courses of action taken by the human being "to remove uneasiness" and to make himself "better off." Being broader than the notion of economizing, the concept of human action does not restrict analysis of the decision to the allocation problem posed by the juxtaposition of scarce means and multiple ends. The decision, in the framework of the human-action approach, is not arrived at merely by mechanical computation of the solution to the maximization problem implicit in the configuration of the given ends and means. It reflects not merely the manipulation of given means to correspond faithfully with the hierarchy of given ends, but also *the very perception of the ends–means framework* within which allocation and economizing is to take place (Kirzner, 1973, p. 33).

While Robbins's economizing man can only react in a given way to a strictly defined set of ends and means, Misesian *homo agens* can *also* identify which ends to strive for and which means are available. This is possible because human beings can actually «*imagine* the future, even a non-existent, unknowable future» (Kirzner, 1992, p. 25). Instead, economizing behaviour does not take into account the process of identifying ends and means. It is at this point that Kirzner specifically introduced his famous concept of *alertness* to «possibly newly worthwhile goals and to possibly newly available resources» (Kirzner, 1973, p. 35); such alertness is what he labelled the *entrepreneurial element* in human decision-making. If entrepreneurship is alertness, then the succession of different decisions and their revisions can be seen as a sequence of linked actions, the fruit of the learning process due to alertness (Kirzner, 1973, p. 36). In a way, the concept of alertness is linked with *discovery* and *surprise*: profit opportunities do not "fall from the sky", but neither do entrepreneurs deliberately look for them:

> […] The profit opportunities created by earlier entrepreneurial error do tend systematically to stimulate subsequent entrepreneurial discovery. The entrepreneurial process so set into motion, is a process tending toward better mutual awareness among market participants. The lure of pure profit in this way sets up the process through which pure profit tends to be competed away. Enhanced mutual awareness, via the entrepreneurial discovery process, is the source of the market's equilibrative properties (Kirzner, 1997, p. 72).

From this, Kirzner derived his concept of the *pure entrepreneur*. For Schumpeter, the action that identifies the pure entrepreneur is to bring out new combinations; for Kirzner (1973, p. 39), he or she is «a decision-maker whose *entire* role arises out of his alertness to hitherto unnoticed opportunities». For both economists, in fact, entrepreneurship is completely independent of the ownership of the means of production. The entrepreneurial function is instead strictly related to a special attitude: introducing new combinations (action) for Schumpeter and alertness (pre-action) for Kirzner. Regarding alertness, however, a clarification becomes necessary: The Kirznerian entrepreneur does *not* possess greater knowledge. On the contrary, alertness is defined as «*the "knowledge" of where to find market data*» (Kirzner, 1973, p. 67). Therefore, the Kirznerian type of entrepreneurship is in no way related to a certain kind of superiority but consists *only* in «"knowing where to look for knowledge" rather than knowledge of substantive market information» (Kirzner, 1973, p. 68); this is the reason why Kirzner did not label this attitude as *knowledge* but *alertness*.

The most distinctive feature of the Kirznerian entrepreneurial function is to move the market from a disequilibrium status towards equilibrium (Kirzner, 1973, pp. 69-75). The starting point of human action, in fact, is always a state of disequilibrium characterized by market ignorance. As already noticed, it is through interaction in the market that knowledge can be transmitted and acquired, bringing out revisions to plans. Entrepreneurial alertness allows such changes to happen, and, therefore, by reducing market ignorance and driving plans towards mutual compatibility, it is an *equilibrating* force. The market approach, in fact, focuses «on the role of knowledge and discovery in the process of market equilibration. In particular, this approach (a) sees equilibration as a systematic process in which market participants acquire more and more accurate and complete *mutual knowledge* of potential demand and supply attitudes, and (b) sees the driving force behind this systematic process in what will be described below as *entrepreneurial discovery*» (Kirzner, 1997, p. 62).

The equilibrating process consists exactly of the acquisition of better mutual information concerning the plans made by different market actors[5]. Profit opportunities only actually exist and are "visible" to entrepreneurial alertness in states of disequilibrium[6]. In this sense, alertness allows discovery, and discovery plays an equilibrating role, reducing market ignorance (Kirzner, 1997, p. 68).

2.3. AN ENTREPRENEURIAL SYNTHESIS

In drawing up this synthesis, it is important to first of all repeat that Schumpeter's and Kirzner's entrepreneurial theories both arose in opposition to neoclassical equilibrium theory. What the two economists brought out from such opposition are two analyses of human behaviour driving the economic system in certain directions.

Schumpeter's entrepreneur, a maker and master of change, is a *deus ex machina* for capitalistic economic development. A very specific period of economic history is related to this function: the era of "heroic" leader entrepreneurs characterized the eighteenth, nineteenth and beginning of the twentieth centuries. As historical conditions change through trustification, the role of entrepreneurs changes too, while the responsibility of forging economic development through "new combinations" shifts to research centres and managers.

Kirznerian entrepreneurship, however, is not conceived as a historical matter or a specific characteristic of "superior people". Rather, it is a general feature of human action, consisting of the possibility of setting up a means–ends framework in order to exploit unnoticed profit opportunities. Under this perspective, everybody is potentially entrepreneurial over time and space. Space and time conditions do not change the general features of entrepreneurship, which has remained a constant element of human beings' behaviour over centuries. Kirznerian entrepreneurs are not the "prime cause" of economic development; rather, through their alertness, they generate the market process through a process of information exchange and therefore ignorance reduction. Alertness becomes an equilibrating force, helping economic actors make their plans mutually consistent.

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[5] In the market economy, the problem of coordination finds a solution in the market process and the key role is played by prices (Kirzner, 1963, p. 38).
[6] «[…] mutual knowledge is indeed full of gaps at any given time, yet the market process is understood to provide a systemic set of forces, set in motion by entrepreneurial alertness, which tend to reduce the extent of mutual ignorance. Knowledge is not perfect; but neither is ignorance necessarily invincible. Equilibrium is indeed never attained, yet the market does exhibit powerful tendencies toward it» (Kirzner, 1992, p. 5).

My perspective is that *both* entrepreneurial ideas can coexist when looking at a new synthetic approach to entrepreneurship. The source of misunderstanding is believed to be that the two economists labelled different concepts with the same word. The Schumpeterian entrepreneur is not incompatible with the Kirznerian entrepreneur. While there is some agreement with the theory of human action described by Kirzner, it seems too weak to fully explain the essence of entrepreneurship. Kirzner's theory can be the first brick in integrating human action and entrepreneurship theories if the label of the theory as an entrepreneurial theory is renounced to instead be called *alertness theory*. Markets are characterized by ignorance, and economic agents define their sets of ends and means consistently with their expectations and the limited content of their knowledge. In doing so, they trigger the market process and the never-ending processes of information exchange and revising plans. They are alert to profit opportunities,and they learn from experience. The acquisition of new information, arising from the interaction between the subject and the surrounding reality, generates new knowledge via never-ending interpretative processes.

However, among these economic actors, *special types* can actually arise. The introduction of new combinations and the leadership attitudes do not need to be excluded by Kirzner's model. Schumpeter's entrepreneurs arise from Kirznerian alertness, driving the economic system towards *change*. If alertness is a unique state of mind that comes from Mises's idea of purposeful human action, then new combinations can be seen as a subset of alertness. They are a unique type of action that brings something stronger than what was known into the market process in terms of *change*. Similarly, Schumpeterian entrepreneurs are fully consistent with the human action model. They are alert to unnoticed profit opportunities, and they need to set up their end–means frameworks. In doing so, however, the kind of plans and the set of actions they carry out, since they are not theoretically different from all the other kinds of actions, are practically different for the special consequences they bring into the economic system. In fact, such actions introduce radical discontinuities in the way things are done[7].

The disruptive character of Schumpeterian entrepreneurs and the coordinative role as described by Kirzner are, therefore, not entirely inconsistent. Looking at the system from the outside, Schumpeter's entrepreneur shows us the importance of technological change for economic evolution. Kirzner's insights, instead, shed light on the working of the economic system from within (that is, profit opportunities arising from ignorance and alertness as well as the possibility of seizing them) (Kirzner, 1999, p. 16).

It seems that recently Kirzner (1999) became aware of the potential compatibility between the two visions[8]. Kirzner (1999, p. 5) stressed how Schumpeter's view is valid in order tounderstand «the psychological profile typical of the real-world entrepreneur» and the "creative destruction", which Schumpeter saw as the central and distinguishing feature of the "capitalist" system. Kirzner (1999, p. 12) recognized that alertness requires «boldness, self-confidence, creativity and innovative ability» as described by Schumpeterian entrepreneurship. Moreover, it seems that Kirzner also accepted the special psychological attitude necessary for entrepreneurship typical of Schumpeter's vision[9].

Schumpeterian entrepreneurship characterized by leadership and innovation, can be seen as a special action arising from the Kirznerian concept of alertness as related to the Misesianapproach to human action, but brought out by special types of humans, entrepreneurs, and with radical consequences not simply for the market process but for the economic development process.

It can be imagined as an *alertness* or Kirznerian theory in which human beings, as *homo agens*, define their end–means framework and their plans. Interaction between these *homo agens* defines the market process, which is characterized by ignorance reduction, plans revisions, and coordination. Among such plans, some are *entrepreneurial*, disruptive plans ("new combinations"), brought out by Schumpeterian entrepreneurs and defining economic change.

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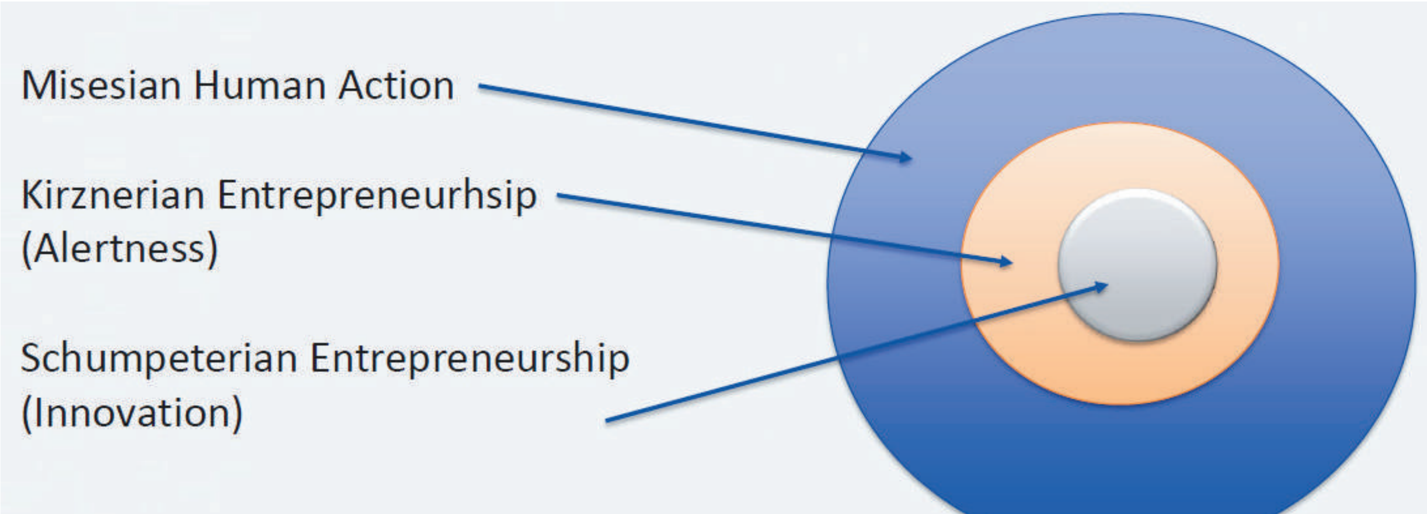
[7] Kirzner (1992, p. 50) probably moved towards my vision, stating that «entrepreneurship exercised in innovative production tents to generate technological progress».

[8] Kirzner (2008, p. 8) pointed out that the «merely alert entrepreneur […] was never intended as alternative to the creative, innovative Schumpeterian entrepreneur».

[9] Kirzner (1999, p. 13): «abstract prescience [must] be supported by psychological qualities that encourage one to ignore conventional wisdom, to dismiss the jeers of those deriding what they see as the self-deluded visionary, to disrupt what others have come to see as the comfortable familiarity of the old-fashioned ways of doing things, to ruin rudely and even cruelly the confident expectations of those whose somnolence has led them to expect to continue to make their living as they have for years past».

Figure 1. Human Action, Alertness and Entrepreneurship



Source: Ferlito (2016, p. 55)

As shown in Figure 1, entrepreneurship and alertness are both subsets of human action, but they differ in the unique set of consequences they bring to the economic system – consequences that are only observable *ex post*.

With the help of Horwitz (2019), a final word needs to be spent on how entrepreneurs maketheir entrepreneurial decisions. How do business owners decide which output to attempt to produce and which goods to combine in the production process in order to eventually obtain the desired output? The main beacons for them are (profit) expectations and the price system. Horwitz (2019, p. 22) explains that the «fundamental challenge of economic production involves answering the twin questions of "what should be produced?" and "how should we produce it?" The first of the two questions relates to consumer preferences: what is that people wish to buy, or might wish to buy if it were available to them? The second question, which is the one that is often overlooked especially by critics of capitalism, is the harder one: if we are to make this product, which combination of inputs should we use to make it such that we use the least valuable inputs possible? This question is what economists mean by"economic efficiency"». How do entrepreneurs compare alternative goods and alternative processes of production to determine if they are creating value rather than destroying it?

Here it is enough to say that what «enables us to engage in these comparisons of value are market prices determined by the exchange of goods and services against money» (Horwitz, 2019, p. 22). Market prices exist thanks to private property, «which enables people to exchange and form markets, which in turn leads to the emergence of market prices» (Horwitz, 2019, p. 22). Market prices are, thus, the objective synthesis of billions of subjective evaluations arising from market interactions; thanks to the guidance provided by prices, which give information about consumer preferences and scarcity, entrepreneurs can effectively decide what to do and how. Similarly, market prices allow to determine if a production process generated or destroyed value, thanks to the comparison between outlays and receipts; as Horwitz (2019, p. 23) put it, «[m]onetary calculation of profits and losses provides producers with ex post feedback about the wisdom of their past choices that, without market prices, would be unavailable».

Considering that these decisions and production processes happen in a context of uncertainty generated by the passage of time and by the limited content of information available to each individual, the role of entrepreneurial choices appears even more important (Horwitz, 2019, p. 24). Successes and failures become an important signal for the entire economic community.

3.
FROM COMPETITION TO CONCENTRATION

With the help of Schumpeter, Hayek and Kirzner, I tried to:

- Dismantle the idea of perfect competition, intended as a state of affairs where competition is indeed absent;
- Replace it with the idea of a dynamic process unfolding in real time and thereforecharacterized by the unending emergence of novelty;
- Identify the competition process as a struggle between opposing forces (new versus old in the Schumpeterian vision, alertness versus non-alertness in Kirzner);
- Place entrepreneurship at the root of the competition process, so as to stress that the process itself is not abstract but rather made of the interactions between decisions taken by living human beings.

By identifying competition as a process – alive, organic and active in historical time - characterized by the struggle between competing choices made by living human beings, it is possible to appreciate the Nietzschean nature of the process itself:

> if it be a living and not a dying organisation […] will have to be the incarnated Will to Power, it will endeavour to grow, to gain ground, attract to itself and acquire ascendency—not owing to any morality or immorality, but because it *lives*, and because life *is* precisely Will to Power. […] "Exploitation" does not belong to a depraved,or imperfect and primitive society: it belongs to the nature of the living being as a primary organic function; it is a consequence of the intrinsic Will to Power, which is precisely the Will to Life (Nietzsche, 1886, p. 200).

In short, as I always try to explain to my students, an entrepreneur does not enter the market with the aim of becoming one among many, of being equal and homogeneous with respect to other entrepreneurs. On the contrary, the essence of entrepreneurship is precisely the will to power, the desire to get rid of competitors and not to homogenize with them, and the physiological need to conquer growing market shares thanks to winning strategies (Ferlito, 2022). Disruption, rather than equilibrium, is the essence of market forces at work, as «[n]o agent can enter a market, or extend his range of activity within one by making offers to other agents, without disrupting some market relationship presently existing between them and others [and t]his fact is of course the very essence of competition» (Lachmann, 1986, p. 5).

The natural consequence is that true and not fictional entrepreneurship shapes the market process, generating a dynamic competition in which neither the starting point nor the final outcome can be – in each industry – a fragmented archipelago of firms doing the same thing with no distinguishable features.

On the contrary, the *will to power* at the root of entrepreneurial action can only bring about *concentration* as the natural result of a competitive process understood for what it is and not the fiction that is served up to inert students who, unfortunately, will become professors and continue to teach that fiction.

Schumpeter (1942) reached the same conclusion: the emergence of oligopolistic capitalism as the natural outcome of competition; but he saw this as the end of entrepreneurship. It is very well known that Schumpeter's vision of entrepreneurship evolved over decades. The emphasis on the entrepreneur and his exceptional character, grounded in his will and leadership, gave way to a deeper analysis of the entrepreneurial function (still focused onimplementing new combinations) that gradually lost its link to the entrepreneur *as a person*. As he lived through the passage from the "heroic" stage of industrial development hallmarked by individual entrepreneurs to the next stage characterized by the emergence of trusts, new combinations called *innovations* were still present in Schumpeter (1939), and innovations became central to the business cycle analysis. Entrepreneurs were still present, but Schumpeter gradually recognized the declining importance of the entrepreneurial function in the age of trusts. Schumpeter did not renounce his view of entrepreneurs; he simply observed that the general economic scenario was changing: «Already, the volitional aptitudes that made the successful entrepreneur of old are much less necessary and have much less scope than they used to have. It is no chance coincidence that the epoch in which this decrease in importance of the entrepreneurial function first asserted itself is also the epoch in which the social and political position of the *bourgeoisie* first began to display obvious symptoms of weakness and to be attacked with success» (Schumpeter, 1939, p. 109).

Such an observation is a bridge towards what Schumpeter (1942, pp. 131-134) called the *obsolescence of the entrepreneurial function.* Schumpeter (1942, p. 132) observed that the peculiar function of "getting things done", the drive of the personal will, was losing importance for two orders of reasons. On one hand, the task of innovation was becoming the activity of trained specialists; while on the other hand, the social environment was becoming accustomed to economic change and therefore resistance to it was declining. «Now a similar social process—in the last analysis the same social process— undermines the role and, along with the role, the social position of the capitalist entrepreneur. His role, though less glamorous than that of medieval warlords, great or small, also is or was just another form of individual leadership acting by virtue of personal force and personal responsibility for success. His position, like that of warrior classes, is threatened as soon as this function in the social process loses its importance and no less if this is due to the cessation of the social needs it served than if those needs are being served by other, more impersonal, methods» (Schumpeter, 1942, pp. 133-134).

The decline of the entrepreneurial function and entrepreneurs, according to Schumpeter, opened the doors to the end of "capitalism" as we know it. Economic progress becomes depersonalized and automated, while committees and planning offices replace individual action. The result, Schumpeter (1942, p. 134) stressed, may not differ from what Marxist scientists describe as *de facto* socialism.

My perspective is different: it is the innovation process[10] as such, at the core of competitive and entrepreneurial dynamics, which requires concentration to propagate and reproduce itself. The entrepreneurial *will to power*, which sets in motion competition and innovation, generates a capitalist dynamic in which expansion, intended as growth and consolidation, is the key to survival.

> The characteristic feature of the process of industrial concentration is precisely that it creates by no means negligible technological discontinuities. Only large firms can apply certain methods, both technical and organizational, and only large firms can realize certain economies of scale. And the transition from small to large firms is not gradual; there are jumps and the jumps become broader as concentration proceeds (SylosLabini, 1957, p. 33).

In a nutshell, if innovation is the essential element for economic development to happen (Sylos Labini, 1992, p. 5), concentration is the essential condition for technical progress to emerge.

The great wave of American indigenous innovations, which benefited the rest of the world thanks to adoption and adaptation, started in the 1870s and culminated in the three decades that followed World War II (Phelps, 2013). This is exactly the same period in which the process of industrial concentration began and affirmed itself, making oligopoly not a special case but «the most frequent market form of modern economies» (Sylos Labini, 1957, p. 14)[11]. In fact, we may say that, when innovation spreads quickly, concentration becomes a precondition for further technical progress. When a new technique is rapidly diffusing, the entrepreneur introducing it would have to be careful to gain enough profit before the wider adoption of that technique makes his or her investment meaningless. Such a phenomenon creates the incentive to introduce innovations that are gradually more difficult to be rapidly adopted and one way to do so is indeed to increase business size and introduce techniques with a higher degree of imitation barrier, thanks to the scale of necessary investments.

[10] Broadly intended, following Pasinetti (1981, pp. 76-78).
[11] Robinson (1933, pp. 307-326) in 1933 was already describing the first half of the 20th century as a world of monopolies.

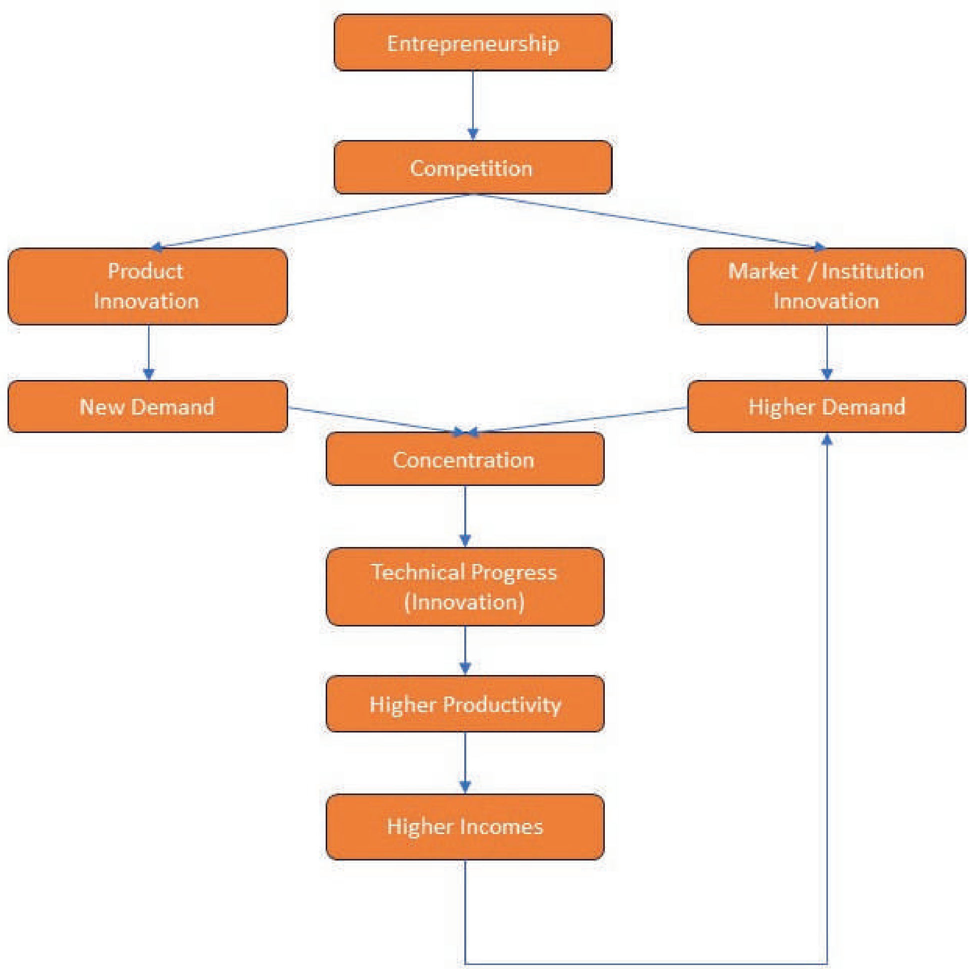
Innovation and concentration must therefore walk together (Robinson, 1956, pp. 86-87). In fact, within the realm of concentrated oligopoly, technology «creates external barriers between each group of firms and its potential competitors» (Sylos Labini, 1957, pp. 53-54).

However, the process of industrial concentration «creates by no means negligible technological discontinuities. Only large firms can apply certain methods, both technical and organizational, and only large firms can realize certain economies of scale. And the transition from small to large firms is not gradual; there are jumps and the jumps come broader as concentration proceeds» (Sylos Labini, 1957, p. 35).

Furthermore, it would be misleading to believe that such a process would be in contradiction with free markets and, in particular, with open international trade. Quite the contrary: competition and innovation walked together, in the past decades, with the growing scale of international trade openness, which is often – but misleadingly – labelled as globalization. However, it is not difficult to imagine how access to a wider market – higher demand – can be a powerful incentive for enterprises to grow and for entrepreneurs to get together to win competition on international markets, which is possible only thanks to economies of scale: «growth of the market tends to increase the average size of firms and to lower the price» (Sylos Labini, 1957, p. 62). Furthermore, when the process of concentration begins, demand becomes the main determinant of new investments, as, within a concentrated industry, production activity is very little sensitive to changes in interest rates; profit expectations can be nurtured only by higher demand (Sylos Labini, 1957, p. 165).

Once the process of concentration is set in motion, the technical progress it generates, bringing about increased productivity, can in itself further increase demand thanks to higher incomes (profits and wages) (Sylos Labini, 1957, p. 167), therefore setting in motion a virtuous cycle :

Figure 2. Entrepreneurship, Competition and Concentration



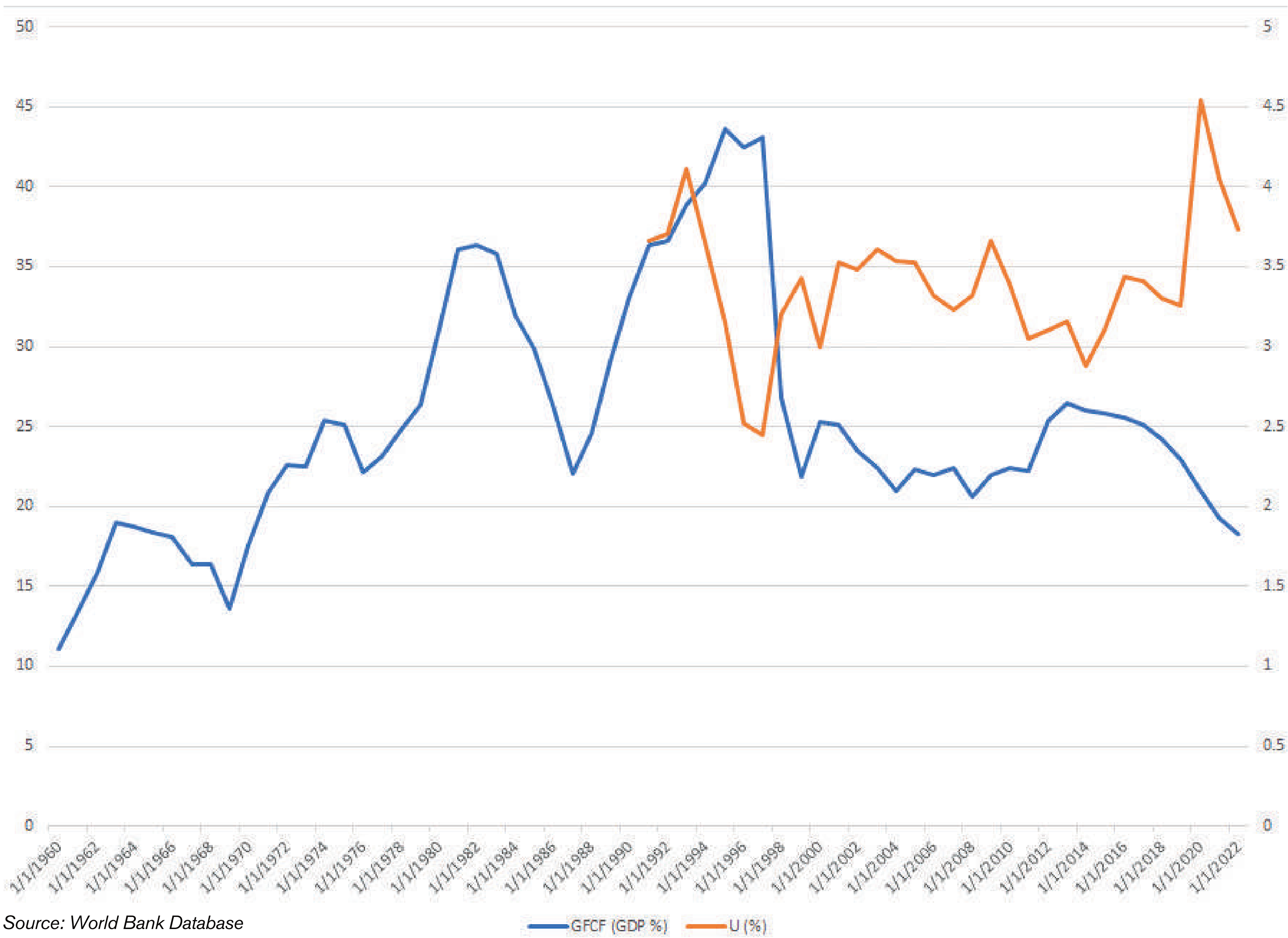
Concentration is a necessary condition for technical progress also because, under an oligopolistic regime, firms can pursue a target of profit maximization with a higher degree of independence: price policy comes to be strictly related to the target of financing new investments (Sylos Labini, 1992, p. 205) and the rate of growth of a firm's production will be proportional to the profit rate of the same firm (Sylos Labini, 1992, p. 215).

In such a scenario, small and medium enterprises are not supposed to disappear; they can constitute a vibrant and supportive ecosystem for bigger firms to thrive. In fact, smaller firms can remain innovative in terms of spirit and ideas, but they may lack the scale and market power to make innovations happen: a cooperative spirit between small and big enterprises can be seen as key for the innovative process to remain vibrant (Sylos Labini, 1993, pp. 270-272).

The same reasoning can be applied to the potentially virtuous cooperation between developed and emerging economies, whereby innovative processes in the former can be stimulated by potential demand in the latter, while an inversion of the direction cannot be excluded a-priori (Sylos Labini, 1984, p. 153).

Finally, the idea that technical progress generates not only higher productivity (as it is natural to believe) but also higher income is supported by the evidence about the inverse relationship between the investment/output ratio (I/Y) and the unemployment rate (*u*) that can be found, with reference to the cases of the United States and Japan, in Sylos Labini (2004, pp. 59-61). The relationship seems to hold also in the case of Malaysia[12].

Figure 3. Gross Fixed Capital Formation (% of GDP) versus Unemployment Rate – Malaysia



Source: World Bank Database

[12] The anomaly of the latest years can be attributed to the special effects produced by the Great Lockdown.

4.

EMPIRICAL EVIDENCE

In a recent work, Brancaccio, Giammetti and Lucarelli (2022, pp. 110-112) embraced an approach to measuring concentration based on the ownership of capital. Analysing data on 5,515 listed companies from 71 countries for the period 2001-2016, they identified the *nodes* of these firms, i.e., the different agents participating in the shareholding structure. In 2001, they identified 14,694 nodes related to each other through more than 400,000 ownership links. In 2016, the nodes reached more than 40,000, with more than one million mutual shareholding participations. Such a shareholding network kept increasing until the financial crisis in 2007 and then restarted to grow after 2008.

Similarly, by using Lorenz curves, Brancaccio, Giammetti and Lucarelli (2022, p. 115) showed that the great majority of firms in the sample recorded 80% of *net control* in the hands of around 1% of the shareholders, indicating a high capital concentration.

Another interesting and promising perspective for future research on industrial concentration is the top 50 companies market capitalization as a percentage of the world GDP.

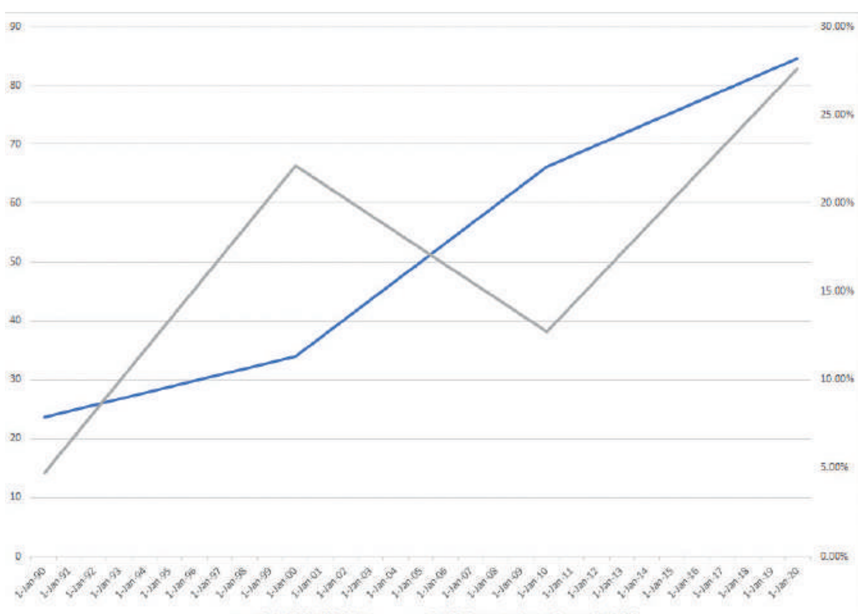
Table 1. Top 50 Companies Market Cap as a % of GDP

Date	Global GDP (USD Trillion)	Global GDP Growth (%)	Top 50 Companies Market Cap as a % of GDP	Growth (%)
31-Dec-90	23.6		4.70%	
31-Dec-00	34	44.07%	22.10%	370.21%
31-Dec-10	66.2	94.71%	12.70%	-42.53%
31-Dec-20	84.5	27.64%	27.60%	117.32%

Source: *https://www.visualcapitalist.com/top-50-companies-proportion-of-world-gdp/*

As it can be seen, the market capitalization of the top 50 firms in the world not only constantly increased, but it did so at a faster pace than GDP growth. The slowing down in 2010 can be attributed, as in the case of Brancaccio, Giammetti and Lucarelli (2022) data, to the effects of the 2007 financial crisis.

Figure 4. Top 50 Companies Market Cap as a % of GDP



Source: *https://www.visualcapitalist.com/top-50-companies-proportion-of-world-gdp/*

The relative share of the top firm in the world also increased. In 1990, the chart was led by IBM, whose market capitalization represented 0.27% of the world's GDP. In 2000, the leader was General Electrics (1.4%), in 2010, Exxon Mobil (0.56%) and in 2020, Apple (2.7%)[13].

The same trend can be observed in the growth of the estimated number of large companies (with more than 250 employees) worldwide during the last two decades.

Figure 5: Estimated Number of Large Companies (250+ employees) Worldwide from 2000 to 2021 (in 1,000s)

Source: https://www.statista.com/statistics/1261035/large-global-companies/

Such evidence may seem in contradiction with the declining trend recorded in the HH market concentration index worldwide, which was 0.16 in 1988 and 0.04 in 2020 (World Bank[14]). However, what is interesting to observe, beyond concentration in absolute terms, is the role of big enterprises within a certain economy.

According to World Bank data, formal Small and Medium Enterprises (SMEs) account for 90% of businesses around the world, employing 50% of the workforce but generating 40% of the GDP[15]. This means that, worldwide, 10% of big firms contribute to around 60% of the national product.

Malaysian data is quite in line with the world trend. In fact, 2021 Micro, Small and Medium Enterprises (MSMEs) represented 97.4% of the total number of registered firms, employed around half of the labour force, but generated only 37.36% of the GDP (the data has remained quite stable over the past decade). This means that the remaining 2.6% of businesses – the big ones – generated 62.64% of it! (DOSM, 2022).

The situation is different in Indonesia, where the informal sector still plays a very important role in the national economy. In the archipelago, MSMEs represent 99.9% of the business population, employ almost 97% of the workforce and generate 61% of the GDP (Bank Indonesia[16] and OECD[17]).

[13] https://www.visualcapitalist.com/top-50-companies-proportion-of-world-gdp/
[14] https://wits.worldbank.org/CountryProfile/en/Country/WLD/StartYear/1988/EndYear/2021/Indicator/HH-MKT-CNCNTRTN-NDX
[15] https://www.worldbank.org/en/topic/smefinance
[16] https://www.bi.go.id/en/bi-institute/BI-Epsilon/Pages/Tantangan-Digitalisasi-UMKM-Berbasis-Budaya.aspx
[17] https://www.oecd-ilibrary.org/sites/13753156-en/index.html?itemId=/content/component/13753156-en

5.

CONCLUSION

The main target of the present paper has been to dismantle the idea of perfect competition intended as a state of affairs where competition is indeed absent; this is, unfortunately, the way in which competition is presented to economics students.

With the support of Schumpeter, Hayek and Kirzner, I have then tried to replace that vision with the idea of a dynamic process unfolding in real time and therefore characterized by the unending emergence of novelty; this brings me to see the market process as open-ended dynamics where the outcome cannot be predicted. Competition is thus identified as a process of struggle between opposing forces (new versus old in Schumpeterian vision, alertness versus non-alertness in Kirzner).

Furthermore, competition is not an impersonal process; at its root, I have placed entrepreneurship, to stress that the process itself is not abstract but rather made of the interactions between decisions taken by living human beings (resulting from interpretations emerging from signals sent by market prices).

But the process of competition set in motion by entrepreneurship must have, by nature, a Nietzschean spirit, whereby the *will to power* pushes towards growth, so that a virtuous cycle of market growth, technical progress, productivity, higher income and higher demand is created, as can be hinted through all the scholarly work of Paolo Sylos Labini.

An oligopolistic capitalism is thus the natural consequence of competition, not because, as Schumpeter argued, the entrepreneurial function gets exhausted, but rather because concentration is the necessary condition for it to survive and prosper.

Such a trend is demonstrated not only by the growing market capitalization of big firms and by their growing number, which walked together with globalization, but also by the extensive role that big corporations play in the economy: they represent 10% of the business population, but they generate 60% of the GDP.

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