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ADAM SMITH AND COMPETITIVE EQUILIBRIUM

BY

RAMESH CHANDRA
UNIVERSITY OF STRATHCLYDE

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DEPARTMENT OF ECONOMICS
UNIVERSITY OF STRATHCLYDE
GLASGOW

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Ramesh Chandra
Department of Economics
University of Strathclyde
Curran Building
100 Cathedral Street
Glasgow G4 0LN
UK

E mail: ramesh.chandra@strath.ac.uk

Abstract

A view has emerged which sees Adam Smith's main contribution to economics in terms of his equilibrium theory. This paper argues that equilibrium economics was neither Smith's main contribution nor his chief concern. It is true that Smith made a few observations which may be construed as equilibrium economics in some loose sense. For example, his observation that the market price of a commodity has a tendency to gravitate towards its natural price; or the rate of profit in different employments tends towards equality. But from this it cannot be concluded that Smith was chiefly an equilibrium theorist. In the first place, it needs to be emphasised that the 'tendency' towards equilibrium, which Smith talked about, is not the same thing as an equilibrium 'outcome'. Equilibrium as an outcome is more likely to be reached in a stationary state than in an evolutionary system in the process of continuous dynamic motion. Smith's evolutionary perspective, his analysis of the division of labour, capital accumulation, and the institutions most conducive to the generation of wealth, all point to the fact that Smith was more concerned with dynamic analysis than with static equilibrium. Finally, barring a few observations on the equilibrating tendency in the system, most of the *Wealth of Nations* is not devoted to this question.

1. Introduction

In the *Wealth of Nations*, Smith's main concern was economic progress. In this regard he explored the relationship between the division of labour and the market size; the role of saving and capital accumulation in growth; the institutional arrangements which were conducive to the division of labour and the efficient utilisation of saving potential of an economy; the institutional arrangements which hindered this process; and the proper role of the government in the system of natural liberty. His foray into equilibrium economics is incidental to the main theme namely nature and causes of the wealth of nations. Indeed, most of the *Wealth of Nations* is devoted to the study of aggregate economic change over time as also to the study of institutions facilitating or hindering this process.

Yet, considerable literature exists suggesting that Smith's main contribution to economics was equilibrium theory although questions have been raised as to how good an equilibrium economist Smith was. It all began with Schumpeter's judgement on Smith: "The rudimentary equilibrium theory of Chapter 7, by far the best piece of economic theory turned out by A. Smith, in fact points toward Say and, through the latter's work, to Walras. The purely theoretical developments of the nineteenth century consist to a considerable degree in improvements upon it" (Schumpeter 1954, p.189). This view is in contrast to the one expressed by Kaldor (1972) who argued that economic theory went astray from the middle of the fourth chapter of Vol. I of the *Wealth of Nations*, the first three being devoted to the principle of the division of labour. However, Schumpeter's interpretation was more influential than that of Kaldor. As Winch (1997) observes:

> Schumpeter's patronising judgement on Smith's performance has certainly had a larger following. In his opinion, Chapter 7 was the best piece of economic analysis poor Smith ever managed to achieve, though the praise was considerably diluted when he added that it was a good chapter because it enabled Jean Baptiste Say to write a better one that was, in turn, to prove an inspiration to Leon Walras. Thus began the business of assessing just how good a general equilibrium theorist Smith really was… Clearly, the underlying assumption is that the apparatus constructed upon the foundations laid by Walras and Pareto over the years provides the only language according to which Smith can be deemed to be speaking sense (pp.5-6).

In his influential essay on the nature and significance of economic science, Robbins (1932) poses the problem of economics as one of allocation of scarce resources which have alternative uses. From this standpoint, Smith's main contribution to economic theory is seen as value and distribution and not the study of wealth, despite what the title *Wealth of Nations* suggests:

> Although Adam Smith's great work professed to deal with the causes of wealth of nations, and did in fact make many remarks on the general question of the conditions of opulence which are of great importance in any history of applied Economics, yet, from the point of view of theoretical Economics the central achievement of his book was his demonstration of the mode in which the division of labour tended to be kept in equilibrium by the mechanism of relative prices – a demonstration which, as Allyn Young has shown, is in harmony with the most refined apparatus of the modern School of Laussanne. The theory of value and distribution was really the central core of the analysis of the classics, try as they might to conceal their objects under other names… Thus, though the appearance of modern theory may be new, its substance is continuous with what was most essential in the old (pp. 68-9).

Similarly, Stigler (1976, p.1201) observes: "The proposition that resources seek their most profitable uses, so that in equilibrium the rates of return to a resource in various uses will be equal, is still the most substantive proposition in all of economics." Stigler regards this as the crown jewel of the *Wealth of Nations* and the foundation of the theory of resource allocation.

This proposition is seen as the logical outcome of the behaviour of individuals seeking self-interest under conditions of competition.

The business of seeing Smith through equilibrium glasses continues to this day. For example, Buchanan and Yoon (2000) argue that Smithean conception of increasing returns is perfectly compatible with competitive equilibrium. They also argue that Smith's dictum regarding the relationship between the division of labour and market size is best captured by the notion of *generalised* rather than *sector-specific* increasing returns. "And there is nothing in the Smithean proposition, so interpreted, that rules out competitive equilibrium as an end-state of adjustment or that suggests that such an equilibrium, if attained, is not itself Pareto optimal (Buchanan and Yoon 1999)" (Buchanan and Yoon 2000, p.45).

So used are economists to looking at things from equilibrium perspective that even Allyn Young, who built on Adam Smith's analysis regarding the division of labour and its relationship to the size of the market, is also interpreted as advocating some kind of competitive equilibrium:[1]

> The idea that increasing returns are central to the explanation of long-run growth is at least as old as Adam Smith's story of the pin factory. With the introduction by Alfred Marshall of the distinction between internal and external economies, it appeared that this explanation could be given a consistent, competitive equilibrium interpretation. The most prominent such attempt was made by Allyn Young in his 1928 presidential address to the Economics and Statistics section of the British Association for the Advancement of Science (Romer 1986, p. 1004).

It is true that Smith has been subjected to varying interpretations over the years depending on the prevailing paradigm or the mood of the times.[2] This partly arises because *Wealth of Nations* contains a wealth of ideas and doctrines. So successive generations have found something of value in Smith which lends support to their own ideas or doctrines. As Marshall pointed out "there is scarcely any economic truth now known of which he [Smith] did not get a glimpse". Similarly, Viner (1928) also observed: "Traces of every conceivable sort of doctrine can be found in that most catholic book, and an economist must have peculiar theories indeed who cannot quote from the *Wealth of Nations* to support his special purposes" (p. 126). The enduring interest in Smith, apart from the wealth of ideas, has also something to do with "Smith's realism and understanding of his fellowmen" (Black 1976, p.63).

The objective of this paper is to critically examine whether Smith's main contribution to economics should be seen in terms of his equilibrium theory. It is true that Smith made a few observations which may be construed as equilibrium economics in some loose sense. For example, his observation that the market price of a commodity has a tendency to gravitate towards its natural price; or the rate of profit in different occupations tends towards equality. But from this it cannot be concluded that Smith was chiefly an equilibrium theorist. In the first place, it needs to be emphasised that the 'tendency' towards equilibrium, which Smith talked about, is not the same thing as an equilibrium 'outcome'. Equilibrium 'outcome' is more likely to be achieved in a stationary state than in an evolutionary system in the process of continuous dynamic motion. Smith's evolutionary perspective, his analysis of the division

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[1] For a discussion on how modern endogenous growth literature misrepresents Young see Chandra and Sandilands (forthcoming). For an evaluation of Young from the perspective of different schools of thought see Chandra (2003).

[2] For an elaboration of this theme see Black (1976). In a recent work Peil (1999), adopting a similar line, criticises earlier interpreters for using "Smith's texts as a kind of lucky dip from which they could quote various, even mutually contradictory, ideas…in order to support or criticise contemporary theories" (p.13).

of labour, capital accumulation, and the institutions most conducive to the generation of wealth, all point to the fact that Smith was more concerned with dynamic analysis than with static equilibrium. Barring a few observations on the equilibrating tendency in the system, most of the *Wealth of Nations* is not devoted to this question.

This paper thus argues that equilibrium economics was neither Smith's main contribution nor his chief concern. The next section takes a look at Smith's equilibrium economics. Section 3 is devoted to his disequilibrium economics which far outweighs his equilibrium theory. Section 4 concludes the paper.

2. Smith's Equilibrium Economics

In Chapter 7 of the *Wealth of Nations*, Smith makes a distinction between the market and natural price of a commodity. The natural price of a commodity is defined as one which is sufficient to pay the rent of land, the wages of labour and the profits of stock employed in raising, preparing and bringing it to the market according to their natural rates. The actual price at which any commodity is sold is called its market price. When the quantity of any commodity which is brought to the market falls short of the effectual demand, competition among the consumers will lead to a rise in its market price over and above the natural price. If, on the other hand, the quantity brought to the market exceeds the effectual demand, the market price will sink below its natural level. Therefore, in the short run the natural and the market price may diverge but in the long run they tend to converge:

> The natural price, therefore, is, as it were, the central price, to which the prices of all commodities are continually gravitating. Different accidents may sometimes keep them suspended a good deal above it, and sometimes force them down even somewhat below it. But whatever may be the obstacles which hinder them from settling in this center of repose and continuance, they are constantly tending towards it.
> The whole quantity of industry annually employed in order to bring any commodity to market, naturally suits itself in this manner to the effectual demand. It naturally aims at bringing always the precise quantity thither which may be sufficient to supply, and no more than supply, that demand (Smith 1776, Vol. I, p. 65).

Moreover, while a monopoly tends to keep the market price above the natural price, free competition tends to keep it around the natural price. While the price of monopoly is the highest that can be squeezed out of the consumers, the price of free competition is the lowest acceptable to the producers to keep production going:

> The price of monopoly is upon every occasion the highest that can be got. The natural price, or the price of free competition, on the contrary, is the lowest which can be taken, not upon every occasion indeed, but for considerable time altogether. The one is upon every occasion the highest which can be squeezed out of the buyers, or which, it is supposed, they will consent to give: The other is the lowest which the sellers can commonly afford to take, and at the same time continue their business (*ibid*, I, p. 69).

Can one infer from this that Smith was an equilibrium economist in the sense that his chief concern was to show how free competition ensured the convergence of natural and market prices; and by showing that the free competition price is the lowest that can be taken was he highlighting the optimality property of the market?

Before we answer this question let us have a look at Chapter 10, in which Smith talks about the tendency of wages and profits to equalise in different employments. If a system of natural liberty prevails and each man is perfectly free to choose or alter his occupation then the net advantages of labour and stock tend towards equality in different lines of production:

> The whole of advantages and disadvantages of the different employments of labour and stock must, in the same neighbourhood, be either perfectly equal or continually tending to equality. If in the same neighbourhood, there was any employment evidently either more or less advantageous than the rest, so many people would crowd into it in the one case, and so many would desert it in the other, that its advantages would soon return to the levels of other employments (*ibid*, I, p. 111).

Smith then goes on to discuss the counterbalancing circumstances or policies deviating from perfect liberty which explain the observed differences in pecuniary wages and profits.[3] But subject to these counterbalancing forces, Smith did say that there was a tendency for wages and profits to tend towards equality in different employments.

It can be argued that the tendency of the market price to gravitate towards its natural level should be seen as a *tendency* rather than actual *outcome* of free competition. Similarly, tendencies of wages and profits to equalise in different employments should also be seen as operative forces of a free market economy rather than an end result. In a system which is in a perpetual state of evolution, or forward dynamic motion, equilibrium as an 'outcome' would be rare. In such a system one may talk about equilibrium as a tendency but equilibrium as an end result is more likely to come about when the system itself has come to a halt.

A similar view is expressed by Reid (1989) who emphasises the importance of distinguishing between competition as a structure and competition as a process. In a competitive process, different participants like consumers, producers, merchants and capitalists take part out of self interest. Their actions may have beneficial consequences for the whole society but this was not a part of their design. The view of competition as a structure, on the other hand, sees competition in terms of certain optimality properties. This essentially implies certain features like all markets clear, firms equate their prices to marginal costs and factors are rewarded in line with their marginal contributions. However, the *act* of competition or the competitive process is different from the *consequence* of competition (or the competitive structure).[4]

Smith viewed competition as a race, but this race must be run in accordance with the rules of the game. In the *Theory of Moral Sentiments* he observed: "In a race for wealth, and honours, and preferments, he [each individual] may run as hard as he can, and strain every nerve and muscle, in order to outstrip all his competitors. But if he should justle, or throw down any of them, the indulgence of the spectators is entirely at an end. It is a violation of fair play, which they cannot admit of" (TMS, p.83). However, fair play cannot be left to the players themselves. A referee has to ensure that the race is conducted in accordance with the rules of the game. Competition has to take place within the parameters of justice laid down and implemented by the state. Smith was aware that without a proper system of justice neither the

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[3] Smith (1776), for example, discusses five counterbalancing circumstances: "first, the agreeableness or disagreeableness of the employments themselves; secondly, the easiness and cheapness, or the difficulty and the expence of learning them; thirdly, the constancy or inconstancy of employment in them; fourthly, the small or great trust which must be reposed in those who exercise them; and fifthly, the probability or improbability of success in them" (I, 112). Similarly, policies deviating from the system natural liberty may also exercise a counterbalancing influence: "First by restraining the competition in some employments…; secondly, by increasing in others beyond what it naturally would be; and thirdly, by obstructing the free circulation of labour and stock, both from employment to employment and from place to place" (*ibid*., I, 132).

[4] See also Blaug (1999) who writes about "competition as a process of rivalry". It is indeed this view of competition which the classical economists like Smith, Ricardo and Marx had in mind. It is only with Cournot's notion of "perfect competition" in 1838 as an end state conception that competition went down a new road. Even then Marshall, and later the Austrians, subscribed to 'process' view of competition.

market nor the society could exist. In his system of natural liberty each individual is allowed to pursue "his own interest his own way" provided "he does not violate the laws of justice".

To come back to the earlier question, was Smith a general equilibrium economist? There is no doubt some elements of Smith's analysis were akin to equilibrium economics. But by far his main concern was with the process of dynamic change rather than with static problems of price determination and resource allocation. Reid (1989, p. 3) observes:

> Whilst Smith did indeed provide an analysis of how all markets would ultimately operate harmoniously, and in this sense he was, if you will, concerned with general equilibrium, his greater emphasis was actually on processes of adjustment of the sort that neoclassical general equilibrium theorists model as a means of establishing propositions concerning the stability of general equilibrium. In Smith it is the process that is the competition. Further, this process of competition is part of an analysis of growth.

If competition is to be regarded as a process in the sense of a race or a contest, rather than a static end result, clearly the equilibrium outcome is not very interesting. What is more interesting is the self-perpetuating property of an economy which propels it to riches and prosperity. Equilibrium as an outcome is more likely to be realised in a stationary state where all accumulation and growth comes to a halt. It is in such a situation that it becomes more realistic to talk about the perfect equality of market and natural prices or the rates of return in different employments to be perfectly equal. The act of accumulation occurs to take advantage of supernormal profits; and these profits are not likely to be the same in every employment of capital. As Schumpeter pointed out, the market process is kept alive by the "gale of creative destruction" in which new processes, products, technologies, materials, markets are constantly emerging. Therefore, in a growing economy it is unrealistic to talk about outcomes which are likely to be achieved in an end-state where all accumulation has ceased. For Smith this end-state was still far away, as nations were still to acquire the full complement of riches that were possible.[5]

In the chapter on the natural progress of opulence, Smith talks about the various employments of capital. In accordance with the natural course of things the correct sequence for the employment of capital of a country is first agriculture, then manufactures and finally foreign commerce. Smith reasons: "As the capital of the landlord or farmer is more secure than that of the manufacturer, so the capital of the manufacturer, being at all times more within his view and command, is more secure than that of the foreign merchant" (Smith 1776 Vol. I, p. 405). It could well be that because of cheap land, as in the North American colonies, agriculture is more profitable; and in those countries where land is relatively scarce, it makes more sense to establish manufactures, even if they are for distant sales.[6] Thus it is the differential rates of profit in different activities which actually account for this bias towards agriculture as noted by Hollander (1971, 1973). If rates of return were to be equal in all sectors, that would be a situation of perfect equilibrium. There would then be no logical case for giving priority to

[5] Smith defines a stationary state as "a country which had acquired that full complement of riches which the nature of its soil and climate, and its situation with respect to other countries, allowed it to acquire; which could, therefore advance no further, and which was not going backwards…" (Smith 1776, I, 107). In Smith's opinion, "perhaps no country has ever yet arrived at this degree of opulence" (*ibid*, I, 107).

[6] Smith wrote: "In our North American colonies, where uncultivated land is still to be had upon easy terms, no manufactures for distant sales have ever been established in any of their towns… In countries…where there is either no uncultivated land, or none that can be had upon easy terms, every artificer who has acquired more stock than he can employ in the occasional jobs of the neighbourhood, endeavours to prepare work for more distant sale. The smith erects some sort of iron, the weaver some sort of linen or woollen manufactory… Those different manufactures come, in the process of time, to be gradually subdivided, and thereby improved and refined in a great variety of ways…" (*ibid*, I, 404).

agriculture or to any other sector. But this situation can only arise as the end result of a competitive process, perhaps in a stationary state. Clearly, therefore, Smith was not interested in equilibrium analysis or the economics of a stationary state. As Reid (1989, p. 25) observes: "Smith's analysis of investment priorities was about disequilibrium, and the flow of capital to sectors with relatively high profit rates. Thus investment priorities are a reflection of differentials in rates of profit before equilibrium is established. It is the competitive, or market, process that encourages the appropriate flows of capital."

Many scholars have argued that Smith's price theory and his analysis of the market was not the best that was possible. It is claimed that the eighteenth century theorising on this subject had reached a fair amount of sophistication which Smith failed to capture and often failed to climb to the levels of his predecessors.[7] For example, Rashid (1992) writes: "The failure to grasp the sophistication of eighteenth-century microeconomics is perhaps the greatest defect in the existing literature… The extent to which Smith failed to climb to the level of his predecessors is an issue deserving more careful consideration. *It is not claimed that the eighteenth-century understanding of the market was complete – only that Smith had nothing to add to what already existed*. He never went ahead, and frequently stayed behind, the best views of his predecessors" (pp. 131-2).

Schumpeter's judgement on Smith has encouraged others to cast doubt on Smith's credentials as an equilibrium theorist. However, the whole business of looking at Smith through equilibrium framework appears misguided. It would be misleading to judge Smith as an equilibrium theorist as he was not trying to be one. As Winch (1997, p.6) suggests: "Smith's inadequacies as a general equilibrium theorist cannot be attributed to the lack of tools for the job: the mathematics of constrained maximisation, where this could be applied to marginal utilities as well as products, neither the ordinal nor cardinal versions of which make even a token appearance in Smith's way of thinking. The simple answer is that Smith was not trying very hard to be a general equilibrium theorist."

In our judgement therefore it is best to regard Smith's equilibrium price theory or the principle of equal net return as something which was not the main concern of the *Wealth of Nations* but as something which was incidental to its main theme namely economic progress. Moreover, Smith talked of them as tendencies and not as definite end results. To conclude this section we can do no better than to quote Douglas (1928), who writing about 150 years after the publication of the *Wealth of Nations*, suggested: "The contributions of Adam Smith to the theory of value and distribution were not great, and in commemorating the publication of the Wealth of Nations it might seem to be the path of wisdom to pass these topics by in discreet silence and to reserve discussion instead for those subjects, such as the division of labour, where his realistic talents enabled him to appear at a better advantage" (p. 77).

3. Smith's Dynamic Analysis

In a competitive market economy many forces are at work, some equilibrating and others non-equilibrating. The end result would depend on the relative strength of the different kinds of forces. In Young's (1928) opinion forces making for disequilibrium are continuously defeating those which make for equilibrium. So nothing is to be gained by static equilibrium analysis as departures from past trends, movements away from equilibrium are the

[7] An opinion exists to suggest that what is true of Smith's price theory is also true of his most theoretical formulations. For example, Viner (1928) observes, "on every detail, taken by itself, Smith appears to have had predecessors in plenty. On few was Smith as penetrating as the best of his predecessors" (p. 118).

predominant forces engendered within an economic system. Change begets further change so that it becomes progressive and propagates itself in a cumulative way. This in essence is the theory of endogenous change in the sense that it arises out of the very forces present within the economic system.

In a stationary state also both types of tendencies would be present but the preponderant influence would be that of equilibrium. Since the centre of gravity in a stationary state is more or less static, any deviation from equilibrium is promptly corrected by the operation of the market forces to bring the system back to equilibrium. As already noted, Smith was not mainly interested in this kind of analysis but in the nature and causes of the wealth of nations.

In this section therefore we shall dwell on Smith's dynamic theory. We shall consider four points: Smith's view of a system in the process of evolution; Smith's analysis of the division of labour; Smith's theory of accumulation; and Smith's analysis of institutions which facilitate or hinder dynamic change.

3.1 Theory of Evolution

We have seen that in the *Wealth of Nations* the concept of equilibrium has been posed as a tendency towards which the system gravitates. Therefore, the concept of equilibrium in Smith has to be understood as a tendency and not as a definite outcome. Milgate (1987) observes: "Equilibrium is, as Adam Smith might have put it (though he did not use the term), the centre of gravitation of the economic system – it is that configuration of values towards which all economic magnitudes are continually tending to conform" (p. 105). Since Smith's concern was long-term change, his conception of equilibrium was not static but dynamic in which the centre of gravity itself has a tendency to shift over time.

Because of the forces engendered within the system, an economic system is constantly in a process of evolution or adjustment. An economic system therefore can be seen to be continually tending to adjust to its shifting centre of gravity. It is in this sense that Young (1928) used the term "moving equilibrium" to describe his theory of endogenous growth. The process of endogenous change therefore propels the system forward and leads to its continual evolution.[8] Clearly, in the theory of evolution the concept of equilibrium makes sense only when used in the sense of a moving equilibrium. Otherwise it is best to see the process of cumulative change as a disequilibrium process rather than a static equilibrium configuration in the neoclassical sense.

Some economists (for example, Arrow and Hahn 1971; Hahn 1981) take the line that the effectiveness or otherwise of the invisible hand has to be seen against the equilibrium perspective of resource allocation. It should be noted that Smith did not propound his doctrine of the invisible hand to bring about an equilibrium outcome or some optimal allocation of resources in some static sense. The invisible hand should be seen from a dynamic perspective rather than from an equilibrium perspective. It is more a device to propel an economy into a continual forward motion in an evolutionary framework. The invisible hand is a means by which the process of rapid accumulation and economic progress can be attained. In a nutshell, the invisible hand is an engine of endogenous economic change.

[8] "The economic system grows and evolves, like a living organism, by means of successive adjustments and adaptations. But change breeds change, and every new adjustment paves the way for another" (Young 1929b, and in Mehrling and Sandilands 1999, p.411).

If the purpose of the invisible hand is to ensure dynamic motion, what exactly is the role of prices? Do they not help in clearing the market in the sense of equating demand and supply and thereby bringing about an equilibrium? In an economy in a state of continual forward motion prices are no more than signalling devices. Prices are signals to various micro agents to make adjustments. In an economy subject to dynamic change these adjustments are not a one shot affair. They are an ongoing affair and are constantly made in response to the new emerging realities. Therefore, the proper role of prices is not one of clearing the markets but one of signalling economic agents to adjust their plans to a constantly evolving situation. The role of prices is not a static one but a dynamic one – to provide dynamic impulses so as to propel the system onwards. As a result of endogenous forces, the centre of gravity of the system is continuously moving forward. Even Adam Smith's natural price around which the market price gravitates has a tendency to fall in the long run as a result of productivity gains arising from the division of labour.[9] Clearly, when the centre of gravity itself is shifting, equilibrium outcome is elusive. It can be achieved only if the system comes to a standstill.

Equilibrium 'outcome' is like a mirage; the more one goes towards it the further it recedes. To take another analogy, it is like one's own shadow. The harder you run to catch it the faster it eludes you. The shadow comes to a stop once you stop. An economic system therefore is unlikely to reach an equilibrium (except perhaps temporarily[10]) unless the system itself comes to a halt. In this conception of an evolutionary dynamic system, equilibrium outcome is an exception rather than a rule. The very forces (e.g. competition, the invisible hand etc.) which tend to take it towards its centre of gravity propel the centre of gravity forward (in the form of economic progress). As a result, a competitive economic system is in a continuous state of forward motion arising out of the forces within the system. Therefore the process of adjusting to the centre of gravity (i.e., the tendency towards equilibrium but not its actual achievement) and the process of forward movement of the centre of gravity itself (i.e., economic progress) are occurring at the same time.

Smith was influenced by Newtonian mechanics and had an understanding of the concept of equilibrium systems in the physical world. However, the concept of equilibrium as in the physical sciences cannot be readily transferred to the moral or economic field. In his *Theory of Moral Sentiments* he did talk about the fact that man's self-love tends to be counterbalanced by his feelings of sympathy. But the balance between the two could not be as

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[9] "The increase of demand…though in the beginning it may sometimes raise the price of goods, never fails to lower it in the long run. It encourages production, and thereby increases the competition of the producers, who, in order to undersell one another, have recourse to new divisions of labour and new improvements of art, which might never otherwise have been thought of" (Smith 1776, Vol. II, pp. 271-2). Smith also pointed out that with the progress of improvement in society the real price of manufactures tends to fall: "It is the natural effect of improvement…to diminish gradually the real price of almost all manufactures. That of the manufacturing workmanship diminishes, perhaps, in all of them without exception. In consequence of better machinery, of better dexterity, and of a more proper division and distribution of work, all of which are the natural effects of improvement, a much smaller quantity of labour becomes requisite for executing any particular piece of work; and though, in consequence of the flourishing circumstances of the society, the real price of labour should rise very considerably, yet the great diminution of the quantity will generally much more than compensate the greatest rise which can happen in the price" (*ibid*., I, 269). See also Young (1990, p.45) who draws a downward sloping supply (and demand) curves. The demand curve is described as a reciprocal of the supply curve of other industries. Given elastic demand for other goods, the increased production of the good in question results in continuous shifts in its demand curve.

[10] Young (1929a) thought that the concept of equilibrium is always relative to time and that all economic equilibria are unstable. "Market price is the price which will be found in a given market at a given time. It may be regarded as the limiting form of short-time or temporary equilibrium price" (also in the *Journal of Economic Studies*, 1990, 17(3/4), p. 154). Contrast this with the Marshallian conception of long-run equilibrium or normal price.

precise as in the physical universe. In the realm of economics the concept of equilibrium was subject to further limitations. The collected data may be imprecise and often uncertain. Besides, the field of economics does not permit controlled experiments; these are only possible in laboratory conditions. As Reid (1989, p.19) puts it: "In political economy, Smith realised that data are uncertain, and our knowledge of cause and effect relationships is imperfect."

In Smith the developmental process can be thought to consist of different stages.[11] There may be some continuity from one stage to another but each stage has its own distinct characteristics. Change from one stage to another is both qualitative and quantitative. The different stages of development were hunting, pasturage, farming and commercial society.[12] Smith was living at a time when widespread mercantilist restrictions prevailed and industrialism was in its infancy. In the process of evolution from one stage to another, economic forces play a key role in shaping and determining the institutions of society. Indeed, the economic forces are continuously encouraging institutional evolution. For example, Reisman (1976, p.14) suggests: "To an economic determinist such as Adam Smith, the institutional and the normative framework of society cannot simply be dismissed with a *ceteris paribus* assumption: economic activity itself is alone enough to prevent *ceteris* from remaining *paribus*."

Evolutionary change from one epoch (or stage) to another in Smith does not happen in terms of class conflict as in Marx. While Marx viewed capitalism as containing the seeds of its own destruction, Smith viewed it as containing the seeds of its own growth. Smith was aware that with economic progress, there was a tendency for the rate of profit to fall and the emergence of a stationary state was a possibility.[13] On the other hand, in periods of economic expansion wages and rents were expected to rise. Though Smith was clearly aware of the social divisions as a result of economic progress, he was not interested in developing a theory of class conflict. Thus his evolutionary approach is based more on harmony of interests[14] than on sharp social conflict. He was confident that economic progress would bring benefits to all classes and the stationary state was too distant to call for serious consideration. As Barber (1967, p. 45) observes:

> On the whole he [Smith] regarded economic expansion as bringing benefits to all. It might be checked at a future point in time, but that day was distant. The emergence of a stationary state, when further expansion would be halted and capital accumulation restricted to replacement requirements, was too remote to call for serious analysis.

[11] For an account of Scottish-French influences on the development of "four stages" theory see Meek (1971).

[12] Raphael (1985, pp.1-2), commenting on the Marxian and Smithian analysis of stages of society, observes: "Marx's materialist interpretation of history is a theory of stages of society, each having a distinct social structure in terms of property and depending on a distinctive system of production. The essence of such a theory underlies the *Wealth of Nations*, which is as much a sociological as an economic treatise. Smith writes about four stages of society, beginning with an age of hunters, followed by one of shepherds, and then proceeding through an age of agriculture to an age of commerce. The analysis of economic activity, which forms the main subject of the book, belongs to the fourth stage of the process. The historical picture is intended to explain the development of law and government, which, according to this account, are first needed in the age of shepherds, when the concept of property arises… Property has to be protected, and this, in Smith's view, is the primary aim of the government."

[13] This tendency of a falling profit rate is explained in terms of competition among the capitalists and decline in profitable opportunities as capitals increase. This is in contrast to the Ricardian explanation where land scarcity and the operation of diminishing returns in agriculture leads to a falling rate of profit throughout the economy.

[14] For harmony of interests to become a reality at the societal level Smith in the *Theory of Moral Sentiments* talks about the need to balance self-love of man with sympathy, and in the *Wealth of Nations*, excessive greed of man needs to be kept in check through competition conducted in a framework of justice.

The basic motivating force in the Smithean marketplace is self-interest. For example: "It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest." But this self-interest has unintended consequences. If each man in his market exchanges is engaged in furthering his own interest, he ends up promoting the society's advantage as an unintentional outcome:

> By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it. I have never known much good done by those who affected to trade for the public good. It is an affectation, indeed, not very common among merchants, and very few words need be employed in dissuading them from it (Smith 1776, Vol. I, pp. 477-8).

Seen in this light, self-interest is a very powerful principle leading to an unintentional promotion of public welfare. However, Smith was not in favour of unbridled pursuit of self-interest particularly when it came in conflict with larger public interest. Although a champion of individual liberty, Smith was critical of the organised merchant and business interests who were often influential in getting the laws and policies changed to suit them. So Smith recommended the need for exercising a great caution while processing proposals from this class of people:

> The proposal of any new law or regulation of commerce which comes from this order, ought always to be listened to with great precaution, and ought never to be adopted till after having been long and carefully examined, not only with the most scrupulous, but with the most suspicious attention. It comes from an order of men, whose interest is never exactly the same with that of the public, who have generally an interest to deceive and even to oppress the public, and who accordingly have, upon many occasions, both deceived and oppressed it (*ibid*, I, 278).

Also, self-interest in Smith does not take the form of some rational or hedonistic principle such as utility maximisation as in the neoclassical approach.[15] Economists, in general, have taken an individualistic approach to self-interest as if a man pursues self-interest in isolation. The utility function of an individual may not be independent of other people's level of consumption or income. Similarly there may be non-economic factors at work such as social interaction, culture, religion, status, and so on. As Knight (1960) observes, the purely rational behaviour of man may require an absence of personal relations with people treating each other as vending machines. Adam Smith used a very broad approach on this question and saw it generally as a desire in human beings to better one's condition.[16]

3.2 Division of Labour

[15] See, for example, Coase (1994): "It is wrong to believe as is commonly done, that Adam Smith had as his view of man an abstraction, an 'economic man', rationally pursuing his self-interest in a single minded way. Smith would not have thought it sensible to treat man as rational utility maximiser" (p.116). Kaldor (1972) points out that the basic assumptions of economic theory such as consumers seek to maximise utility or producers seek to maximise profits are unverifiable (p. 1238).

[16] In Smith the desire to better one's condition or augmenting one's fortune arises primarily not to satisfy the basic bodily desires, which can easily be supplied by the wages of even an ordinary worker, but to seek approval of fellow man by climbing up in status. By becoming economically successful a person is able to attract the attention of the world and able to gain respect, admiration credit and rank among his equals. For a further elaboration of this point see Kern (2001).

Indeed the principle of self-interest directly leads to social co-operation through the process of market exchange. The division of labour which results in general opulence of society has a social dimension. It arises because of the propensity in human beings to truck, barter and exchange. This propensity is found in humans and not in animals, as Smith says, "Nobody ever saw a dog make a fair and deliberate exchange of one bone for another with another dog. Nobody ever saw one animal by its gestures and natural cries signify to another, this is mine, that yours; I am willing to give this for that" (Smith 1776 Vol. I, p.17). What a man consumes daily is the product of the co-operation of a great multitude of people. Even an ordinary woollen coat of a worker is the product of the social division of labour among various crafts such as the shepherd, the sorter, the carder, the dyer, the scribbler, the spinner, the weaver, the fuller, the dresser and many others. Indeed, without the co-operation of the great multitude man would not be in a position to enjoy the great many things he consumes in his daily life. But to get the co-operation of others man has to appeal to the self-love of his brethren rather than to their benevolence (*ibid*, I, p.18).

The division of labour, which lies at the heart of opulence, gives an evolving society its forward motion. An economy is in a continuous state of internally generated motion. Change is endogenous in the sense that it results from the forces present within the system. Richardson (1975, pp. 351-2) observes:

> Perpetual motion results from the fact the division of labour is at once a cause and an effect of economic progress. In Chapter I [of the *Wealth of Nations*] we are told how the division of labour increases wealth and in Chapter III how a widening of the market, which increased wealth would bring about, enables the division of labour to be carried further forward…what we have here are the essentials of a theory of self sustaining growth, essentials that were to be more fully developed much later in Allyn Young's justly celebrated article entitled 'Increasing Returns and Economic Progress'.

Young (1928) built upon Smith's famous dictum that the division of labour[17] is constrained by the size of the market. The size of the market was defined in terms of the volume of total production: this at once led to the idea that the capacity to buy depends on the capacity to produce. From this he concluded that "Adam Smith's dictum amounts to the theorem that the division of labour depends in large part upon the division of labour" (p. 533). Young insisted that it was more than a mere tautology:

> It means, if I read its significance rightly, that the counter forces which are continually defeating the forces which make for economic equilibrium are more pervasive and more deeply rooted in the constitution of the modern economic system than we commonly realise. Not only new or adventitious elements, coming from the outside, but elements which are permanent characteristics of the ways in which goods are produced make continuously for change. Every important advance in the organisation of production, regardless of whether it is based upon anything which, in a narrow or technical sense, would be called a new 'invention,' or involves a fresh application of the fruits of scientific progress to industry, alters the conditions of industrial activity and initiates responses elsewhere in the industrial structure which in turn have a further unsettling effect. Thus change becomes progressive and propagates itself in a cumulative way (*ibid*., p.533).[18]

[17] For a comparative account of the contribution by Smith and Young on the division of labour see Chandra (forthcoming).

[18] Veblen (1898) was critical of the classical economists for seeing the economic phenomenon in terms of "tendencies" towards equilibrium and not in terms of "cumulative causation" or "cumulative change". However, Smith did not characterise these tendencies as being dominant. As Young (1928), who built on Smith's analysis of the division of labour, showed that the tendencies towards equilibrium are more than counterbalanced by opposing tendencies such that a competitive market process produces "cumulative change" rather than equilibrium.

Thus a competitive economic system is not in a state of equilibrium but in a state of dynamic change. In this process of economic evolution the division of labour and the market size play a key part. Both are tied in a cause and effect relationship such that change follows the law of cumulative causation. Thus economic equilibrium is not a true characterisation of a competitive system. "It appears plausible so long as Smith's theory of economic evolution is left wholly out of account" (Richardson 1975, p. 351). Therefore authors like Young (1928), Currie (1997), Kaldor (1972), Richardson (1975), O'Brien (1994) and Hutchison (1999) tend to view the *Wealth of Nation's* main contribution in terms of disequilibrium rather than an equilibrium perspective.

3.3 Theory of Accumulation

Self-interest, which leads to social co-operation and promotes the division of labour through market exchange, also impels a person to save. Indeed, as Smith argues, man has an inborn desire to save so as to better his condition: "[T]he principle which prompts to save, is the desire of bettering our condition, a desire which, though generally calm and dispassionate, comes with us from the womb, and never leaves us till we go into the grave" (Smith 1776, Vol. I, 362-3).

This directly leads us to Smith's theory of capital accumulation, for "Capitals are increased by parsimony, and diminished by prodigality and misconduct" (*ibid*., I, 358). According to Smith, it is parsimony, and not industry, which is the immediate cause of the increase of capital: "Industry, indeed, provides the subject which parsimony accumulates. But whatever industry might acquire, if parsimony did not save and store up, the capital would never be greater" (*ibid*., I, p.359). Smith laid such a great emphasis on parsimony that he branded every frugal person a public friend and every spendthrift a public enemy (*ibid*., I, 362).

Smith clearly saw that there was a close connection between capital accumulation and economic progress. The larger the capital stock of a country, the larger its annual produce (*ibid*, I, 365). Capital serves two purposes. It helps employ more productive workers. It also helps increase the productive powers of the workers by equipping them with better machines and tools or by making possible a more proper division and distribution of employment:

> The annual produce of the land and labour of any nation can be increased in its value by no other means, but by increasing either the number of its productive labourers, or the productive powers of those labourers who had before been employed. The number of its productive labourers, it is evident, can never be much increased, but in consequence of an increase of capital, or of the funds destined for maintaining them. The productive powers of the same number of labourers cannot be increased, but in consequence either of some addition and improvement to those machines and instruments which facilitate and abridge labour; or of a more proper division and distribution of employment. In either case an additional capital is almost always required (*ibid*., I, 364).

From this it should not be concluded that capital accumulation by itself can lead to growth or indeed it is the chief cause of growth. Had that been the case there was no need for Smith to attack the mercantilist policies which interfered with the competitive market process; or to discuss the various types of institutional arrangements to see which are best suited to growth; or to discuss the importance of the division of labour (which is constrained by the size of the market) as the chief cause of opulence; or to expound the proper role of the state in a system of natural liberty.

Indeed for Smith capital is not desirable for its own sake but because of its crucial link with the division of labour – the chief cause of economic progress. Capital by helping employ more productive hands promotes the division of labour because the greater the productive hands employed the greater is the distribution and division of tasks.[19] Also, capital by equipping productive hands with better machinery and tools helps abridge and facilitate labour. But since the division of labour itself is governed by the size of the market, it follows that the use of capital in the production process will also be limited by it. That is why Smith emphasised the need to enlarge the domestic market by opening it up to international trade; the need for the state's involvement in providing transport and communication which enlarge and extend the market; and the need to phase out poor laws on the grounds that they interfered with the mobility mechanism of the market.

So predominant is the role of the division of labour[20] in Smith's theory of growth that Schumpeter (1954) commented: "With A. Smith it is practically the only factor in economic progress. *Alone* it accounts 'for the superior affluence and abundance commonly possessed even by [the] lowest and most despised member of the Civilized society, compared with what the most respected and active savage can attain to' in spite of so much 'oppressive inequality'… Technological progress, 'invention of all those machines' – and even investments – is induced by it and is, in fact, just an incident of it" (p. 187).

Smith's theory of international trade is closely tied up with his theory of development since both are based on the importance of the division of labour, as pointed out by Myint (1977). In his theory of development, the division of labour is the chief cause of opulence. International trade widens the market size and promotes further division of labour and thus economic progress. Therefore Smith's development and trade theories can be seen as two sides of the same coin.[21]

3.4 The Institutional Arrangements

According to Smith, the best system to facilitate the market process is the system of natural liberty. Smith argued that all systems of preference and restraints, by interfering with the working of the invisible hand, retarded the progress of society to real wealth and greatness:

> [E]very system which endeavours, either, by extraordinary encouragements, to draw towards a particular species of industry a greater share of capital of the society than that would naturally go to it; or, by extraordinary restraints, to force from a particular species of industry some share of the capital which would otherwise be employed in it; is in reality subversive of the great purpose which it means to promote. It retards, instead of accelerating, the progress of the society towards real wealth and greatness; and diminishes, instead of increasing, the real value of the annual produce of its land and labour (Smith 1776, II, p. 208).

Smith devoted much effort and space to analyse the alternative institutional arrangements from the point of view of arriving at the best arrangement that would facilitate a society's journey towards opulence and riches. Smith reserved much venom for the so-called

[19] Greater employment promotes the division of labour in two ways – first, by promoting better subdivision and distribution of tasks, and secondly, by encouraging invention of better machines (Smith 1776, Vol. I, 96-7). Thus, greater employment promotes technical progress and productivity. See also Eltis (1975).

[20] There is some difference of opinion among scholars as to the exact role of the division of labour vis-a-vis capital accumulation in economic progress. Winch (1997), for example, opines that the role of the division of labour is subordinate to capital accumulation in the process of growth. Cannan (1976), on the other hand, held that the theme of capital accumulation contained in Book II was not essential to his theory of growth: "[I]f Book II were altogether omitted the other Books could stand perfectly well by themselves" (p. xxxv).

[21] According to Myint (1971, p. 246), "The essential virtue of Smith's approach is that it attempts to give a unified analysis of foreign trade and the domestic economy, oriented towards the problem of long-run growth."

mercantile system which aimed at earning a surplus of exports over imports in order to accumulate riches in the form of precious metals.[22] This system encouraged bounties to exports and restrictions on imports to make this surplus as large as possible. This argument was based on the mistaken notion that riches consisted of gold and silver rather than production of goods. While exports of normal items were encouraged through systems of bounties and preferences, that of precious metals were discouraged so that their stock was not depleted. At the same time the consumption of luxuries was generally discouraged on the grounds that they were largely imported. The domestic industries were encouraged by import tariffs as well as by subsidising domestic production. In the foreign trade sector, trading companies were granted exclusive monopolies and privileges to trade in the colonies. The mercantilist system therefore spawned an elaborate network of restrictions, preferences, patronage, and favouritism, which was not conducive to growth.

Smith (1776, II, 179) argued that the interest of the consumer was almost always sacrificed to that of the producer in the mercantile system. This system considered production and not consumption as the ultimate object of industry and commerce:

> Consumption is the sole end and purpose of all production; and the interest of producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident, that it would be absurd to attempt to prove it. But in the mercantile system, the interest of the consumer is almost constantly sacrificed to that of the producer; and it seems to consider production, and not consumption, as the ultimate end and object of all industry and commerce.
>
> In the restraints upon the importation of all foreign commodities which can come into competition with those of our own growth, or manufacture, the interest of the home-consumer is evidently sacrificed to that of the producer. It is altogether for the benefit of the latter, that the former is obliged to pay that enhancement of price which this monopoly almost always occasions.
>
> It is altogether to the benefit of the producer that bounties are granted upon the exportation of some of his productions. The home-consumer is obliged to pay, first, the tax which is necessary for paying the bounty, and secondly, the still greater tax which necessarily arises from the enhancement of the price of the commodity in the home market.

Smith cautioned that the principal benefit of foreign trade should not be seen as importation of gold and silver. International trade had two distinct advantages: it gave vent to a country's superfluities and brought in exchange something valuable, and secondly, by extending the market, furthered the division of labour. By means of international trade, narrowness of the domestic market does not pose a constraint on the division of labour being carried on to the highest perfection. The productive powers of nation are thus increased; annual produce and real wealth of a society, as a result, are greater (*ibid.*, I, 468-9)

Smith also talks about various other systems such as agricultural systems and slavery. All these systems are viewed as inadequate from the point of view of growth and division of labour. For example, on the system of manufacturing based on slavery prevalent in ancient Greece and Rome, Smith observes: "Slaves…are very seldom inventive; and all the most important improvements, either in machinery, or in the arrangement and distribution of work, which facilitate and abridge labour, have been the discoveries of freemen. Should a slave propose any improvement of this kind, his master would be very apt to consider the proposal as the suggestion of laziness, and of a desire to save his own labour at the master's expence. The poor slave, instead of reward, would probably meet with abuse, perhaps with some

[22] Smith mentions that the two principles of the mercantile system were "that wealth consisted in gold and silver, and that those metals could be brought into a country which had no mines only by the balance of trade, or by exporting to a greater value than it imported… Its two great engines for enriching the country, therefore, were restraints on importation, and encouragements to exportation" (Smith 1776, Vol. I, 472).

punishment. In the manufactures carried by slaves, therefore, more labour must generally have been employed to execute the same quantity of work, than in those carried on by freemen. The work of the former must, upon that account, generally been dearer than that of the latter" (*ibid*., II, 205).

Similarly, agricultural systems were also not very conducive to economic progress. Those systems which give preference to agriculture do so by imposing restraints on manufactures and foreign trade. But by doing so they act contrary to the very end they propose. The restrictions on manufacture result in increase in their prices, and this makes manufactures relatively dearer than the agricultural produce. By making rude produce relatively cheaper, this discourages agriculture. In modern terminology terms of trade become tilted against agriculture sector thereby retarding its progress. Smith reaches the conclusion that agricultural systems are perhaps more inconsistent than the mercantile system:

> That system, by encouraging manufactures and foreign trade more than agriculture, turns a certain portion of the capital of the society from supporting a more advantageous, to support a less advantageous species of industry. But still it really and in the end encourages that species of industry which it means to promote. Those agricultural systems, on the contrary, really and in the end discourage their own favourite species of industry (*ibid*., II, 208).

Therefore, Smith emphasised the principle of liberty in economic growth. Since each individual is the best judge of his own self-interest he should be left free to pursue it. No lawgiver or statesman could best judge where each man's capital should be employed: "The statesman, who should attempt to direct private people in what manner they ought to employ their capitals, would not only load himself with a most unnecessary attention, but assume an authority which could safely be trusted, not only to no single person, but to no council or senate whatever, and which would no-where be so dangerous as in the hands of a man who had folly and presumption enough to fancy himself fit to exercise it" (*ibid*., I, 479).

The system of natural liberty was therefore the best from the point of view of growth. "If a nation could not prosper without the enjoyment of perfect liberty and perfect justice there is not in the world a nation which could ever have prospered" (*ibid*., II, p.195). The "obvious and simple system of natural liberty" naturally establishes itself once all restraints and preferences are removed. Each man is perfectly free to pursue his own self-interest provided he abides by the laws of justice. The state then is left to perform only three main functions, namely defence, justice, and public works and institutions (*ibid*., II, p.208).

Smith also highlights the role of private property in the progress of society. The need for security, and the civil administration to provide it, only arises if the institution of private property comes into being. Among the society of hunters, since there is hardly any private property, there is no need felt for establishing a magistrate or a regular administration of justice. Indeed, the establishment of the civil government presupposes the existence of private property:

> Wherever there is great property there is great inequality. For one very rich man, there must be at least five hundred poor, and the affluence of the few supposes the indigence of many. The affluence of the rich excites the indignation of the poor, who are often both driven by want, and prompted by envy, to invade his possessions. It is only under the shelter of the civil magistrate that the owner of that valuable property, which is acquired by the labour of many years, or perhaps of many successive generations, can sleep a single night in security. He is at all times surrounded by unknown enemies, whom, though he never provoked, he can never appease, and from whose injustice he can be protected only by the civil magistrate continually held up to chastise it. The acquisition of valuable and extensive property, therefore, necessarily requires the establishment of civil government. Where there is no property, or at

> least none that exceeds the value of two or three days labour, civil government is not so necessary (*ibid*., II, 232).

It is therefore obvious that Smith devoted great attention to the institutional arrangements conducive for the promotion of growth. At the same time he castigated systems and arrangements which he felt were not very conducive for this purpose. His conclusion was that security and liberty were paramount if private property was to be accumulated. The system of natural liberty which ensured both was therefore best suited to promotion of growth. Despite the inequalities inherent in this system, an ordinary worker is able to enjoy a standard of living many times higher than a savage king.

4. Conclusions

Though Smith made some references to the equilibrating tendencies in the system, this paper argued that equilibrium theory was neither his main concern nor his chief contribution to economics. It was also argued that the tendency towards equilibrium is not the same thing as an equilibrium outcome. Competition as a process needs to be distinguished from competition as an outcome. However, many powerful thinkers such as Schumpeter, Robbins, Stigler, Arrow and Hahn, to name a few, view Smith's main contribution in terms of equilibrium economics. For them the idea of invisible hand only makes sense if seen form the equilibrium perspective of resource allocation.

This paper has shown that Smith was mainly dealing not with equilibrium theory but dynamic change because (i) Smith had an evolutionary perspective of society; (ii) the division of labour imparts the dynamism to keep the system in its forward motion due to the forces internal to the system; (iii) the theory of capital accumulation, in which additional capital is always necessary to employ more productive hands as well as to increase the productive powers of these hands, is crucially linked to the division of labour; and (iv) Smith emphasised the role of proper institutions in facilitating the progress of society.

Although certain forces tend to take the system towards its centre of gravity, the process of endogenous change propels it forward with the result that the centre of gravity itself has the tendency to move forward. Thus an economic system is always adjusting to its constantly shifting centre of gravity. The conception of a shifting centre of gravity can be captured either by referring to it as a moving equilibrium or to say that disequilibrium is the predominant force in an economic system. Forces making for disequilibrium far outweigh those which make for equilibrium, so that change is progressive and propagates itself in a cumulative way.

Smith showed that the basic cause of opulence was the division of labour which arose because of the propensity in human beings to truck, barter and exchange. Smith's proposition that the division of labour is constrained by the size of the market, captures the essence of the process of endogenous growth. Young built on this and came to the conclusion that the division of labour is constrained by the division of labour itself. Therefore, change is cumulative and self-sustaining.

Capital accumulation is necessary to employ more productive workers and to increase the productive powers of these workers. In both cases capital accumulation leads to a better division of labour. Thus capital by itself is not an independent engine of growth; it is important because it furthers the division of labour. Since the division of labour depends on the extent of the market, it follows that use of capital is also market-determined. Thus the key to growth lies in extending the market internally through, for example, transport and communication and externally by engaging in international trade.

Smith was of the view that self-interest could be viewed from a positive perspective – it plays a key role in the working of the invisible hand. Self-interest promotes social co-operation through the process of market exchange. Indeed, what an individual consumes daily is the product of the division of labour of the multitude of men. Self-interest also prompts an individual to save to better his condition, as through the acquisition of a fortune alone can most men hope to gain in status and respect, and seek approval of their fellow citizens. Self-interest is not based on some hedonistic or utilitarian principle; it is based on the inborn desire among humans to seek economic betterment, a desire which comes to us from the womb and does not leave us till we die. But the self-love of man cannot be given a free reign if harmony of interests is the desired result. Thus in the *Theory of Moral Sentiments* self-love is balanced by sympathy; and in the *Wealth of Nations*, it is kept in check through competition in a framework of justice.

Finally, the system of natural liberty is the best system for promoting economic progress. Such a system naturally establishes itself when all restraints and preferences are taken away and when the civil government protects the institution of private property. Systems such as slavery, mercantilism and agricultural societies are based on some forms of restraints or preferences, and are therefore not suitable for economic progress. Institutional arrangements supporting liberty and security are crucial for economic progress.

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