

# INTERPRETING BERNARD LONERGAN'S GENERAL THEORY OF ECONOMIC DYNAMICS: DOES IT COMPLETE HAYEK, KEYNES AND SCHUMPETER?

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## 1 Introduction

Neo-classical economists take equilibrium growth as empirically evident because they assume that people behave rationally to choose their level of employment, consumption, and investment. They also assume that the monetary authorities will expand the money supply in a neutral way. It follows from these assumptions that the economy is operating at its optimum. The economy is in equilibrium and any unemployment is voluntary. Economists in the Keynesian tradition argue that economic data reflect deviations of actual output growth from potential output growth. The economy can approach its potential and reduce unemployment through monetary and fiscal policies. They conclude that unemployment is largely involuntary.<sup>1</sup>

Bernard Lonergan's approach to growth and fluctuations attends to the effects of innovation or the implementation of new ideas in production much as did Schumpeter's approach. Lonergan explains the process of investment and production growth in terms of about ten-year periods. For him, such medium-term processes are central to understanding capitalism. They can be linked in longer cycles or can be derailed in short-term business cycles. In his medium-term growth process, there is a time-to-build lag between investment and the output of consumer goods and services. The lag leads to a rise in income before new consumer goods are ready for sale. Prices move away from equilibrium levels. Further, financial constraints or bubbles can also lead to disequilibrium in income and demand. Like F. H. Hahn, F. A. Hayek,

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<sup>1</sup> E. Malinvaud, *The Theory of Unemployment Reconsidered* (London: Basil Blackwell 1977).

Nicholas Kaldor, and Simon Kuznets, Lonergan argues that variations in income distribution and saving need to match changes in supply.<sup>2</sup> If producers and consumers better understood growth dynamics, he contends, output growth would approach its equilibrium values.

This paper will review links between Lonergan's normative or equilibrium general theory of economic dynamics, or growth and fluctuations, and the thought of Hayek, Keynes, and Schumpeter. For Lonergan, although markets will define what is bought and sold in any exchange economy, production decisions are more fundamental. These decisions are choices about the direction of development, the standard of living and variations in the distribution of wealth in a modern society. They also depend on market constraints, as production is for sale. My conclusion in this paper is that Lonergan offers a general theory of innovation and growth. Building on the dynamics of Hayek, Keynes and Schumpeter, among others, Lonergan's pure cycle extends the general equilibrium theory of mainstream economics to include both growth and cycles.

## 2 Some Background

Lonergan's initial economics research and writing were done while he was teaching in Canada and completing his doctoral studies in theology at the Gregorian University in Rome. As Lonergan tells us, "from 1930 to about 1944 I spent a great deal of my free time on economic theory."<sup>3</sup> The fruits of this study were two essays on innovation and growth: "For a New Political Economy" and "An Essay in Circulation Analysis." Fred Crowe, one of the general editors of Lonergan's collected works, dates the completion of the first essay to between mid-1942 and mid-1943. Lonergan himself dated the second essay to 1944. These essays are published in Volume 21 of the *Collected Works of Bernard Lonergan*. The Lonergan Research Institute in Toronto has in its archives Lonergan's research notes on works by Hayek and Schumpeter, on Keynes's *General Theory of Employment, Interest and Money*, and on the writings of several other economists. Michael Shute of Memorial University is preparing to publish a broad selection of the notes.<sup>4</sup>

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<sup>2</sup> F. H. Hahn, *The Share of Wages in National Income* (London: Wiedenfeld & Nicolson 1972). Nicholas Kaldor, *A Model of Economic Growth in Essays in Economic Stability and Growth* (London: Gerald Duckworth & Co. 1960 [1957]) 279; "The Irrelevance of Equilibrium Economics," *The Economic Journal*, vol. 82, no. 328 (Dec., 1972), 1237-1255.

<sup>3</sup> Lonergan, in an interview from 1977 at the Thomas More Institute, transcribed in *The Question as Commitment: A Symposium*, ed. Elaine Cahn and Cathleen Going (Montreal: Perry Printing Ltd., 1979), 110.

<sup>4</sup> Lonergan read Hayek's *Profit, Interest, and Investment* (London: George Routledge & Sons, 1939) and his *Monetary Theory and the Trade Cycle* (Toronto: Jonathon Cape, 1933), as well as Schumpeter's *The Theory of Economic Development* (Cambridge: Harvard University Press, 1934),

By the end of the nineteenth century it had become clear that people's lives were regularly shaken up by periodic investment booms and speculations, followed by crises, bankruptcies, and unemployment. The 1920s and '30s were periods of ferment in economic theory as economists tried to understand the cyclical dynamics of national economies so that the excesses of booms and depressions might be less harmful to society. Among these economists were three important scholars, whose work spanned the postwar crisis of the early 1920s through the Great Depression and later: Friedrich A. von Hayek, John Maynard Keynes and Joseph A. Schumpeter. Hayek and Schumpeter belonged to the Austrian school of economic thought. Hayek spent time in England during the 1930s, and both Hayek and Schumpeter eventually migrated to America. Keynes, who worked at Cambridge University, England, was a key advisor to the British government after both world wars, but died shortly afterwards.

In the period of economic growth after the second world war economists' interest turned to economic growth rather than cycles. Economists who followed Keynesian ideas thought that governments could handle economic downturns both by adjusting interest rates to encourage borrowing for production and employment, and by adjusting government taxes and spending to encourage demand. But, during the 1970s, Keynesian economic policies only seemed to create stagflation, a combination of rising prices and rising unemployment. The usual remedies did not work. These crises and the structural changes in the world economy focused economists' attention again on cycles. Some returned to the work done in the 1930s by members of the Austrian school such as Hayek and Schumpeter. Loneragan was encouraged by this renewed interest in studying cycles, as well as by the republication of Michal Kalecki's essays, to return to the study of economics in his retirement years.<sup>5</sup> Perhaps there was hope that his "An Essay on Circulation Analysis" would find a market in the new environment.

From 1978 to 1982 Loneragan taught a seminar at Boston College on Macroeconomics and the Dialectic of History. Each year Loneragan revised sections of his 1944 Essay on Circulation Analysis for use in the seminar. His final, though unfinished, text is published in Part I of Volume 15 of the *Collected Works of Bernard Loneragan*. It excludes the more mathematical sections of the 1944 essay, but sets Loneragan's theory in a context of the history of economic thought and methodology.

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*Business Cycles* (New York: McGraw-Hill, 1939), and *History of Economic Analysis* (New York: Oxford University Press, 1954). He also read among others Frank Knight, Erik Lindahl, Heinrich Pesch, Lionel Robbins and later Nicholas Kaldor and Michal Kalecki. See Michael Shute, *Loneragan's Early Economic Research: Texts and Commentary* (Toronto: University of Toronto Press, 2010).

<sup>5</sup> Michal Kalecki, *Selected Essays on the Dynamics of the Capitalist Economy 1933-1970* (Cambridge: University Press, 1971).

As well, the final version includes his diagram balancing the circulation of payments and, as well, links his theory briefly to the economic dynamics of colonialism, trade, and the welfare state. Because the final version was incomplete, the editors of Lonergan's later work explain that they offer a 'performing edition—a text that gives readers what they need in order to understand Lonergan's argument.' In part 2, the book includes a lecture Lonergan gave at the Thomas More Institute in Montreal on "Healing and Creating in History"; in part 3, it presents the more technical sections of the 1944 essay. The editors have added helpful introductions and appendices.<sup>6</sup>

I intend to first summarize the approaches to cycles in the writings of Hayek, Keynes and Schumpeter, before discussing how Lonergan's pure cycle offers a general theory of innovative growth and fluctuations.

### 3 Friedrich von Hayek

It seems to me that this failure of the economists to guide policy more successfully is closely connected with their propensity to imitate as closely as possible the procedures of the brilliantly successful physical sciences—an attempt which in our field may lead to outright error.... I regard it in fact as the great advantage of the mathematical technique that it allows us to describe, by means of algebraic equations, the general character of a pattern even where we are ignorant of the numerical values which will determine its particular manifestation.<sup>7</sup>

Hayek recognized that, "the use of statistics can never consist in a deepening of our theoretical insight." However, he did not deny that statistics "can demonstrate that there are phenomena which the theory does not sufficiently explain" though "it cannot be expected to confirm the theory in a positive sense." He expected statistics to give information about the events that fall within the province of a theory.<sup>8</sup>

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<sup>6</sup> "Editors' Preface," *Macroeconomic Dynamics: An Essay in Circulation Analysis, Collected Works of Bernard Lonergan*, vol. 15, ed. Frederick Lawrence, Patrick Byrne, and Charles Hefling, Jr. (Toronto: University of Toronto Press, 1999), xii. See also "Editors' Introduction," xxv-lxxii, and "Appendix," 177-202.

<sup>7</sup> "The Pretence of Knowledge," Hayek's lecture on the occasion of receiving the Nobel Prize in Economics, 1978, reprinted in *The Essence of Hayek*, ed. Chiaki Nishiyama and Kurt Leube (Stanford: Hoover Institution Press, 1984), 266.

<sup>8</sup> Friedrich von Hayek, *Monetary Theory and the Trade Cycle* (Toronto: Jonathon Cape 1933[1928]) 32, 34.

### 3.1 Hayek on Production, Credit, Profits and Prices

Reflecting his background in the Austrian school, Hayek explained the economy's periodic expansions and contractions via real changes in production. He thought that the time it took to change production in response to innovations or other "changes in the data" constituted cyclical fluctuations.<sup>9</sup> To him this production lag was responsible for the fact that prices moved away from—rather than towards equilibrium.

In his book *Prices and Production* Hayek argues that cyclical growth occurs principally through the increase in bank credits to producers, which makes possible a longer or more roundabout process of production. Following the observations of many before him, and quoting in particular from Malthus and Cantillon, he notes the presence of a lag, between the increase in the money supply and the emergence of an addition to the supply of consumer goods and services. He thought that the transition to a new equilibrium could be completed successfully if the proportions of the money supply spent for producer and consumer goods matched the proportion of these goods in production. However, Hayek remained pessimistic about the inevitability of a crisis because of the lagged rise in the supply of consumer goods.

For Hayek new credit plays an initiating role in the cycle. He contended that the methods used to study an unchanging economy could not be used to study development and growth because money and credit now had to be included. And money introduced a new variable, which led to changes in prices away from equilibrium. A change in the volume of money, understood as velocity as well as quantity, leads, he says, to a "one-sided change in demand, which is not counterbalanced by an equivalent change in supply."<sup>10</sup>

In his article, "The Present State and Immediate Prospects of the Study of Industrial Fluctuations, Hayek qualified the view on new credit that he expressed in his *Monetary Theory and the Trade Cycle*. He acknowledged that among the most urgent problems in the theory of a dynamic economy at that time was that of understanding the effects of a credit expansion. He saw that credit expansion in a dynamic economy differs from that in a stationary economy. In an expanding economy, he says, new credit is necessary to avoid "a continuous fall not only in the prices of consumers' goods but also of the factors of production." The "forced" saving that the new credit precipitates is due to the fall in real incomes as prices rise, when the new credit is not matched immediately by an increase in the output of consumer goods. Hayek saw that if

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<sup>9</sup> Ibid., 17.

<sup>10</sup> Ibid., 93.

voluntary saving takes over the capital created by means of forced saving, the crisis can be avoided.<sup>11</sup>

Hayek, nevertheless, understood that the monetary factors that initiated the business cycle are endogenous, being caused by “an improvement in the expectations of profit or by a diminution in the rate of saving, which may drive the ‘natural rate’ (at which the demand for and the supply of savings are equal) above its previous level, while the banks refrain from raising their rate of interest to a proportionate extent...”<sup>12</sup>

In his book *Profits, Interest, and Investment*, which collected some of his earlier articles, Hayek mentioned the distinction between profits and the interest rate. He states that economists have profits in mind “consciously or unconsciously” when they use the term rate of interest. The confusion of the two terms “began when economists, probably because of the special associations attached to the word profit since Marx, began to shun this term and to use interest instead.” Hayek found the confusion misleading in dynamic analysis.<sup>13</sup>

Hayek discussed how saving, facilitated by financial institutions, has been made available for investment in the industrial economy. Regarding the balance between investment and consumption, he contends that in a dynamic and growing economy a “high rate [of saving] is an important safeguard of stability.” He also sees that groups with higher incomes tend to save more. On the other hand, social insurance measures, while “securing incomes in old age and providing for sickness, accident and unemployment,” also decrease the society’s supply of savings.<sup>14</sup>

Hayek understood that inflation could be avoided “when savings are used to redistribute consuming power so as to give people formerly unemployed a share in the current output of consumers’ goods as remuneration for their producing investment goods.” But Hayek added that expansion of investment must keep within limits to avoid increases of prices and profits in consumer goods industries. The limits are that the new incomes spent on consumer goods must be saved or used for replacement investment. Hayek also noted the importance of saving to keep the balance of employment between capital and consumer goods industries.<sup>15</sup>

In *Monetary Theory and the Trade Cycle*, Hayek explained that crises, or breakdowns in growth, result from changes in the relative prices of producer and consumer goods. In keeping with the general

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<sup>11</sup> Friedrich von Hayek, *Money, Capital and Fluctuations: early essays*, ed. Roy McCloughry (Chicago: Chicago University Press, 1984), 171-182.

<sup>12</sup> Hayek, *Monetary Theory and the Trade Cycle*, 147.

<sup>13</sup> Hayek, *Profits, Interest, and Investment* (New York: Augustus M. Kelley, 1969 [1939]), 4.

<sup>14</sup> *Ibid.*, 168-170.

<sup>15</sup> *Ibid.*, 45, 47, 62.

equilibrium framework, Hayek emphasized price as the automatic stabilizer in an economy. However, he foresaw that the price of consumer goods would rise in an expansion of the means of production because the expansion required more money and credit before new output could be brought to market. He concluded, however, that higher prices would only encourage producers to shift their production to the more profitable consumer goods, and that the expansion in new means of production would come to an end. However, other economists criticized Hayek's explanation of prices in this case. They believed it did not take account of the rise in expected profit relative to the cost of credit, which had started the innovations in means of production in the first place.

Hayek thought that changes in the relative prices of producer and consumer goods in dynamics could be equilibrated if savings were sufficient to control consumer demand. But to avoid crises he thought development should be limited by the level of saving in a community. Hayek also argued that uncontrolled changes in money and credit would disturb the economy's ability to reach equilibrium.<sup>16</sup> Hayek's ideas fell out of favour because his conservative policy views contrasted with Keynes's proposals for an active government role to end crises. Bruce Caldwell, in his introduction to *Contra Keynes and Cambridge*, Volume 9 of *The Collected Works of Hayek*, states that "neither [Hayek nor Keynes] was right. Both purported to be supplying a general theory of the cycle, and in this, neither was successful."<sup>17</sup>

#### 4 John Maynard Keynes

I am myself impressed by the great social advantages of increasing the stock of capital until it ceases to be scarce. But this is a practical judgment, not a theoretical imperative... Moreover, I should readily concede that the wisest course is to advance on both fronts at once. Whilst aiming at a socially controlled rate of investment with a view to a progressive decline in the marginal efficiency of capital, I should support at the same time all sorts of policies for increasing the propensity to consume. For it is unlikely that full employment can be maintained, whatever we may do about investment, with the existing propensity to consume.<sup>18</sup>

Keynes's *General Theory* pays major attention to the variations in employment that result when there are short-period production

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<sup>16</sup> Ibid., 42-47, 49, 50-51, 54.

<sup>17</sup> *Contra Keynes and Cambridge: Essays, Correspondence*, ed. Bruce Caldwell, *Collected Works of F. A. Hayek*, vol. 9 (Chicago: University of Chicago Press, 1995), 46.

<sup>18</sup> John Maynard Keynes *General Theory of Employment, Interest, and Money* (London: MacMillan (1961[1936]), 325.

changes around a given level of output capacity. In this he differs from the Austrian school economists, who consider innovative change as development from one equilibrium to another over time. As Keynes himself stated, he is concerned with the levels of employment and income as they are affected by the propensity to consume, by the marginal efficiency of investment, and by the cost of borrowing.<sup>19</sup>

#### 4.1 Keynes on Production, Credit, Profits, and Prices

For Keynes, short-period changes in the production and output of consumer goods depend on propensities to consume and invest, the latter depending on the profit entrepreneurs expect to gain once they have covered the costs of materials, wages, salaries, interest, and dividends. There is no room for innovation in Keynes's analysis, and investment is a matter of deciding whether or not to replace and maintain the amount of capital equipment currently in use. In short, if producers do not expect to sell all they are currently producing, they may decide to reduce their use of capital equipment. Keynes looked for ways in which central authorities could study the variables that matter in the economy in order to align them to maintain employment and production. His perspective is not too surprising as he was writing during the Great Depression.

Keynes then applied his analysis to business cycles, noting that, "any fluctuation in investment not offset by a corresponding change in the propensity to consume will, of course, result in a fluctuation in employment." But for Keynes, investment, determined by the marginal efficiency of capital, depended largely on the expected yield of capital-goods; that is, the expectation of profits. So Keynes explained the crisis by a disappointment of expectations, or a fall in the marginal efficiency of capital. This occurs, he says, when profits show signs of falling off. Then the fall in profits and investment is matched by a fall in the propensity to consume because the value of people's equities in the stock market falls; as well, income falls with any rise in unemployment.<sup>20</sup>

Keynes's diagnosis of cycles gave an economic role to governments and the banking system: Economic downturns could be controlled through monetary and fiscal policies: lowering the interest rate to encourage investment, and using the tax system and government spending to increase consumption. Keynes saw that the monetary interest rate or borrowing rate could be above the expected profit rate or natural rate of interest—his liquidity trap. The way to get investment and consumer spending started again in a recession was for the government and central bank to intervene. However, Keynes did not suggest controlling an economic boom by raising the interest rate, as it might "deter some useful investments and might further diminish the propensity to consume." He saw that the remedy would lie rather in

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<sup>19</sup> Ibid., 245.

<sup>20</sup> Ibid., 314.

“taking drastic steps, by redistributing incomes or otherwise, to stimulate the propensity to consume.” While Keynes’s social philosophy included the redistribution of income through taxation, he also saw that such redistribution was limited. He acknowledged the importance of “significant inequalities in income and wealth,” saying that “there are valuable human activities which require the motive of money-making and the environment of private wealth-ownership for their full fruition.”<sup>21</sup>

Keynes did not see how a system of *laissez-faire* can avoid wide cyclical fluctuations. He concluded that investment cannot be left to the vagaries of the marginal efficiency of capital and the conventional rate of interest, which is too high to allow the economy to reach the full employment of resources. He stressed that there are two ways to expand output—investment and consumption—and both are important. He also favoured increasing capital until it was no longer scarce. How exactly to achieve this, however, would depend on the social choices made in the political arena.<sup>22</sup>

Keynes understood the interactions of income, demand, supply, and price in an economy that experienced business cycles. But his theory was not general enough as it remained within a macroeconomic framework for an unchanging economy. Because of that focus, Keynes was able to ignore the production and output lags that occur in innovation and growth.

Keynes’s analysis and solutions were taken up by economists and governments in the postwar period after 1945. These policies to stabilize the economy remained in favour until the stagflation (unemployment with inflation) of the 1970s made government spending ineffective and raised questions about how Keynes had been interpreted. Did Keynes see only a residual role for government in an economic crisis? Could business cycles be aggravated by government action? Interest in the theory of cycles of innovation and growth revived and with it an interest in the work of Hayek and Schumpeter. Economists’ attention began to shift away from Keynesian worries about demand toward questions of supply. The Austrian school’s emphasis on production and the supply side was given new consideration.

## 5 Joseph A. Schumpeter

Entrepreneurial profit is a surplus over costs. From the standpoint of the entrepreneur, it is the difference between receipts and outlay in a business. . . . [I]n the circular flow the total receipts of a business—abstracting from monopoly—are just big enough to cover outlays. In it there are only producers who neither make profits nor suffer losses and

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<sup>21</sup> Ibid., 321, 374.

<sup>22</sup> Ibid., 325, 376.

whose income is sufficiently characterized by the phrase ‘wages of management.’ And since the new combinations which are carried out if there is ‘development’ are necessarily more advantageous than the old, total receipts must in this case be greater than total costs.<sup>23</sup>

As he states in the subtitle of his book, Schumpeter’s *Theory of Economic Development* is an inquiry into profits, capital, credit, interest and the business cycle.

### 5.1 Schumpeter on production, credit, profit, and prices

Schumpeter saw that economic science needs to explain the process of innovations in production that creates new goods and services. For Schumpeter the development process was distinct from economic growth because the entrepreneur uses the existing means of production in different combinations rather than creating new means of production. He saw economic growth as a slow-moving, organic development, one which includes an increase in population and wealth to which production adapts. Growth was to be understood by the same theory used to study an unchanging economy. On the other hand, he thought that development calls for a new economic theory.<sup>24</sup>

Schumpeter found that development creates revolutionary changes that occur from within the economy itself through the agency of entrepreneurs. The changes in production can put old products or old methods at a disadvantage; for example, producers of stagecoaches disappeared as other entrepreneurs developed railroads. Innovations can be in manufacturing, transport, or marketing and other services. Characteristic of all innovations is the time lag in production before consumer goods and services are ready for the market. This lag, said Schumpeter, constitutes the boom of the cycle.

Schumpeter distinguished between “normal” and “abnormal” *credit*. Normal credit was used in the circular flow of an unchanging economy. As a result there were no reservoirs of purchasing power that an entrepreneur can turn to. For Schumpeter all normal credit would already be fixed in “definite established channels” of the circular flow. To him, “normal credit creates claims to the social dividend, which represents and may be thought of as certifying services rendered and previous delivery of existing goods. That kind of credit, which is designated by traditional opinion as abnormal, also creates claims to the social product, which, however, in the absence of past productive services could only be described as certificates of future services or of goods yet to be produced.” For Schumpeter, such “abnormal” credit, new money

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<sup>23</sup> Joseph A. Schumpeter, *The Theory of Economic Development* (New York: Oxford 1961[1934]), 128-129.

<sup>24</sup> *Ibid.*, 66-68, 62.

unmatched by current goods and services, was needed by the innovating entrepreneur to create development. With the creation of credit, entrepreneurs can move some means of production from their old uses, and create the new productive combinations they have in mind. Capital for Schumpeter was the purchasing power used to obtain production goods required by the entrepreneur to create development. Then, if the entrepreneurs are successful, the output of consumer goods would be increased and their total price (receipts) would be greater than the credit received and than the goods that they replaced. “Hence the equivalence between the money and commodity streams is more than restored, the credit inflation more than eliminated, the effect on prices more than compensated for, so that it may be said that there is no credit inflation at all in this case—rather deflation—but only a non-synchronous appearance of purchasing power and of the commodities corresponding to it, which temporarily produces the semblance of inflation.” Schumpeter also envisioned that entrepreneurial profit usually will remain in circulation to continue the production started by the entrepreneur, which will then become part of the new circular flow.<sup>25</sup>

Schumpeter believed that entrepreneurs would innovate because they anticipate entrepreneurial profit. For Schumpeter profit was not a reward for risk. The risk is borne by whoever provides the necessary credit. The basis for profit is the temporary surplus of receipts over outlays (or costs of production) in a new enterprise. Schumpeter also rejected the claims of workers or owners of the means of production to a share in the surplus; he saw that as entirely due to the innovation or new combinations of the entrepreneur. As the initial quotation from Schumpeter mentions, in the theory of an unchanging economy or circular flow, there are no profits except where monopolies of one sort or another exist. The boom in investment and production, made possible by the entrepreneur’s new credit, leads to a rise in income and demand through the economy so that prices of materials, labour, and equipment will rise. Until the new production is completed in the output of new consumer goods, the rise in prices will continue. This period of production lag and higher prices is the boom.<sup>26</sup>

As the output of consumer goods and services increases, prices will decrease and profits will then tend to fall. Finally “the law of cost again rules, so that now the prices of the products are again equal to the wages and rents of the services of labour and land.” Schumpeter notes, however, that “trustification of economic life facilitates the permanent continuance of maladjustments in the great combines themselves and hence outside of them, for practically there can only be complete equilibrium if there is free competition in all branches of production.”<sup>27</sup>

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<sup>25</sup> Ibid., 72, 101, 112, 121.

<sup>26</sup> Ibid., 137, 144.

<sup>27</sup> Ibid., 230-245.

Schumpeter thought that in the cases where entrepreneurs pay off their loans, the fall in prices will be below their initial values; real output has increased while money and credit have been reduced to their values before the boom began. Schumpeter argued that the credit deflation in relation to the increased output in the economy explains the depression. Moreover, price decreases discourage and eventually reduce production. This occurs partly because older firms, which have not adapted to the innovation, will have higher costs and may cut production and employment.<sup>28</sup>

But Schumpeter also expected that there would be a fall in demand for producer goods, which would inevitably lead to falls in profit, employment, money incomes and, consequently, in the demand for consumer goods and services as well. But “the expenditure (reinvestment) of that part of entrepreneurial profit which is not annihilated by the fall in prices necessarily more than prevents any lasting shrinkage in the real demand for labour...When, and to the extent that it is invested, an increase in the real demand for labor takes place.”<sup>29</sup>

Schumpeter kept his discussion of development within the framework of a cycle of expansion and depression. He distinguished between an undisturbed course of development with its “normal” depression and a development that ends in an “abnormal” one. An abnormal depression for Schumpeter “raises no new theoretical question.” It is characterized by “panics, bankruptcies, breakdowns in the credit system.” A normal depression is characterized by falling prices of consumer goods as production is completed and scarcity of new output is overcome.<sup>30</sup>

Schumpeter’s description of the “depression” as necessary has two aspects: the difficult adjustment of old and new firms in relation to their markets and costs—that he calls the temporary and unpleasant phenomena--and the lasting effect of a larger output, reorganized production, lower real costs because of a rise in productivity, and the transformation of entrepreneurial profit into the permanent real income of “other classes.”

## 6 Bernard J.F. Lonergan

...the physical, chemical, vegetal, animal, and human potentialities of universal nature are ever stimulated, guided, aided by human effort to the goal of human survival and enjoyment, of human achievement, waste, and destruction... Though the whole is rhythmic, not all is economic... Yet conditioning all culture and inextricably confused with it, there is the economic factor... Thus the

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<sup>28</sup> Ibid., 131, 110.

<sup>29</sup> Ibid., 251 (words in brackets added).

<sup>30</sup> Ibid., 250-251.

material fabric of culture's living home is economic, and underlying this superstructure there stands as foundation the purely economic field concerned with nourishment, shelter, clothing, utilities, services, and amusement.”<sup>31</sup>

Loneragan integrated economics into evolving human culture and history. His approach to philosophy and theology takes account of the dynamism of human understanding and behaviour that is reflected in the developments and declines in human history. It is not surprising that in his study of economics he sought to understand the dynamics of production, exchange, distribution, and consumption or standard of living over time. I will summarize Lonergan's views in relation to those of Hayek, Keynes and Schumpeter, before presenting his general dynamic theory.

### 6.1 Lonergan on Production, Credit, Profits and Prices

Loneragan's primary focus is on production as the basis of economic life. He emphasizes the distinction in production between producer, or surplus goods, and consumer or basic goods. Surplus goods and services accelerate the production of basic goods and services. One new factory can produce new T-shirts on a continuous basis. Similarly a cruise ship can produce travel services over its lifetime. But it takes time to build or adapt a factory or cruise ship, train workers and research the market, before T-shirts or travel services can be produced and sold.

Loneragan's production dynamics are explained in his theory of a pure cycle and deviations from it, which clearly builds on Schumpeter's production dynamics. However, Lonergan's theory of economic development differs from Schumpeter's because Lonergan specifically includes growth. For him, dynamics is a time-consuming process of innovation and growth during which output is both changed and increased.

Unlike Schumpeter, Keynes is concerned with explaining and remedying the fall in production from a full employment level as it relates to income and demand, interest and money. Lonergan himself points to this difference with Keynes in the outline of the argument at the beginning of his 1944 “An Essay in Circulation Analysis.” There he drew attention to the changing channels of productions that underlie Keynes's discussion of consumption and investment: “systematic profits increase in the earlier stages of long-term acceleration but revert to zero in later stages—a phenomenon underlying the variations in the marginal efficiency of capital of Keynesian *General Theory*... [and] the increase and decrease of systematic profits necessitate corresponding changes in subordinate rates of spending—a correlation underlying the significance

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<sup>31</sup> Lonergan, *CWL* 21, 11-12.

of the Keynesian propensity to consume ...”<sup>32</sup> Still, Keynes’s concern about the harm done to society by booms and depressions is echoed in Lonergan’s search for a linked theory of growth and development that could explain to producers and consumers the choices that would both benefit them sufficiently, and benefit society as a whole.

Lonergan acknowledged that new money and credit are needed by producers to initiate innovative growth.<sup>33</sup> In the ideal case new credit goes to producers, so that incomes created by the new investment can be met in due time by a rise in the output of consumer goods. For Lonergan, echoing some of Hayek’s concern, consumer credit is associated with booms or busts, unbalanced trade and international finance, or deficit government spending.<sup>34</sup> In his discussion of credit Lonergan is closer to Schumpeter and, to some extent, Hayek. The role of new credit was an issue for Keynes only when the total credit in the economy was reduced by the failure of producers to maintain production and investment at the full-employment level. So the need for new credit in Keynes had to do with crises and recessions.

The initial effect of any increase in credit is on the incomes of those working in the new and related production. Their increased demand for consumer goods, in the absence of any immediate increase in the output of such goods, creates higher prices and profits for producers of basic or consumer goods and services. Thus for Lonergan there are temporary, systemic profits in a dynamic economy. The profits are related to the production lags and reflect the higher prices of consumer goods in the expansion before the output of consumer goods can be increased. Lonergan discusses profits and prices in his cycles of surplus and basic income, and his cycle of the aggregate basic price spread. For Lonergan, as for Schumpeter, profits are to be reinvested to extend production until consumer prices and costs are again aligned.

Lonergan also discussed deviations from the pure cycle, drawing attention to the tendency for profits to remain in well-placed firms, or for expectations of profits to discourage investment before profits and prices fall to competitive levels. Hayek, Schumpeter, and Keynes discuss dynamics in terms only of deviations from the norm, a norm that implicitly remains general equilibrium. Lonergan grounds deviations in a dynamic equilibrium process that links development with growth.

## 6.2 Lonergan’s Normative Dynamics

Lonergan’s general theory of dynamics explains innovation and growth that result from “new ideas, new methods, new organization.”<sup>35</sup> He

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<sup>32</sup> *CWL* 21, 231; *CWL* 15, 5. References will be given to pages in both *CWL* 15 and *CWL* 21, when they appear in both volumes.

<sup>33</sup> *CWL* 21, 259-266; *CWL* 15, 56-65.

<sup>34</sup> *CWL* 21, 266; *CWL* 15, 63-64.

<sup>35</sup> *CWL* 21, 281; *CWL* 15, 127.

focuses on the changes in production and exchange during an investment cycle of about ten years in length.<sup>36</sup> The cycle is characterized by the acceleration in the production first of producer or surplus goods, which are then used to maintain and accelerate the production of basic or consumer goods that add to society's standard of living.

Loneragan's distinction between basic and surplus products is functional. It depends not on who owns the goods but on how they affect the economy. One firm may well be producing both surplus and basic goods and services. Further, Lonergan notes that there are types of enterprise that are indifferently basic or surplus and turn from one stage to the other according to the use to which their products are put; these include the extraction or processing of raw materials, transportation, the supply of light, heat, power, and a variety of general services.<sup>37</sup>

Measurement in economics is in monetary units measuring the prices of goods, services, and labour in market exchanges or job transactions. Lonergan explains that innovations and growth require an increase in the quantity of money and credit, as Mercantilists, governments, and bankers have also understood. Although he notes that an increase in the circular velocity of money could conceivably be sufficient to increase production, he concludes that changes in velocity generally accompany booms rather than initiate them.<sup>38</sup>

How does a cycle start? Innovating producers obtain the credit and initiate production. For Lonergan, the normal entry of new money into the circuits is through "transfers from the redistributive function to the supply functions." New money enters a production circuit as circulating capital to "bridge the gap between payments made [to workers and other producers] and payments received" from the sales of goods once they are produced. And it is this bridging of the gap with new money that creates systematic profits for a time and temporarily creates a gap between a consumer price index and cost, which Lonergan calls the aggregate basic price spread.

In his discussion of dynamics, Lonergan distinguishes long- and short-term accelerations in production. A short-term acceleration can result in "an increase in production due to a fuller use of existing capital equipment, to a greater efficiency of labour and management, to a decrease in stock of goods [inventories]."<sup>39</sup> A long-term acceleration of production is an increase in production "due to the introduction of more capital equipment and/or more efficient capital equipment."<sup>40</sup> Short and

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<sup>36</sup> *CWL* 21, 306; *CWL* 15, 162.

<sup>37</sup> *CWL* 21, 237, 278; *CWL* 15, 26.

<sup>38</sup> *CWL* 21, 262, 264, 266; *CWL* 15, 59, 62, 64.

<sup>39</sup> *CWL* 21, 241; *CWL* 15, 32. Words in brackets added.

<sup>40</sup> Capital equipment includes capital services such as electronic equipment, and the development of markets and financial services.

long-term accelerations are Lonergan's two possible modes of economic dynamics.<sup>41</sup>

The *initial* phase is the proportionate expansion, characterized by short-term accelerations in the basic and surplus stages. These accelerations increase production but do not add new equipment or producer goods and services. Lonergan's short-term acceleration in the proportionate expansion parallels Keynes's movement out of recession towards full-employment equilibrium.<sup>42</sup> In a normative proportionate expansion, surplus and basic production would tend to rise equally. As the proportionate expansion proceeds, the economy reaches capacity output. New investment is needed before more consumer goods and services can be produced. The stage is set for a long-term acceleration of production of producer goods or a *surplus expansion*.

The acceleration of production is driven by innovation and the demand for more efficient and added means of production as the economy reaches its previous capacity. This long-term acceleration in the production of producer or capital goods can continue until the whole productive process has been transformed, and displaced labour has been retrained and employed on new equipment or in new markets. Further, Lonergan states that more replacements and maintenance will be needed in the larger economy, so that in the normative or ideal case the surplus stage of production need not decline. The investment phase is limited by Lonergan's assumption of "a given field of natural resources and population, and on the supposition of a given level of cultural, political, and technical development."<sup>43</sup> His assumptions point to a medium-term innovative growth process that links growth and cycles. The long-term acceleration of a surplus expansion also creates a new basis for short-term accelerations, which develop more fully the potential already created: "There is much new equipment; many new combinations of production factors have recently emerged; and one may expect that the full potentialities of this new situation have not yet been discovered and exploited."<sup>44</sup>

As we have seen, producer goods replace or add to equipment, skills, materials, and markets that will be used to replace or increase the production of consumer goods and services. The latter production phase constitutes Lonergan's basic expansion. In the basic expansion, the rate of growth in the output of consumer goods overtakes producer goods as their growth reaches its limit. If the production of consumer goods is not constrained, it can raise the standard of living of the whole society. But profits also fall in a basic expansion when the production of consumer goods expands. Increases in the supply of both producer and consumer goods will put downward pressure on prices, and then downward

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<sup>41</sup> *CWL* 21, 277, 280; *CWL* 15, 117, 126.

<sup>42</sup> *CWL* 21, 280, 296; *CWL* 15, 126, 151.

<sup>43</sup> *CWL* 21, 242; *CWL* 15, 34.

<sup>44</sup> *CWL* 21, 277; *CWL* 15, 117.

pressure on profits, which tends to discourage further increases in production.

Loneragan explains that misunderstandings can sidetrack both the surplus and basic expansions. If rising consumer prices in the surplus expansion are misunderstood, they can lead to protests for higher wages or price controls. As well, falling consumer prices in the basic expansion can lead producers to restrict their output in an effort to keep prices and profits steady. What needs to be understood is that the extraordinary profits of the surplus expansion or boom are temporary, to be saved and invested in capital goods to extend the production of consumer goods. However, instead of being reinvested, profits can disappear into the excessive salaries of managers or speculative returns to shareholders. The decline of excess profits at the end of the surplus expansion does not mean the end of the normally higher incomes of management. However, incomes will become less unequal than in the boom. As Keynes also understood, Lonergan sees that raising interest rates to stabilize the economy's high prices in a boom can influence savings and investment, but does so by adjusting the rate of production to the rate of saving rather than vice versa.<sup>45</sup>

Loneragan's innovative growth process "includes no slump, no negative acceleration [of the productive process]. It is entirely a forward movement which, however, involves a cycle inasmuch as in successive periods of time the surplus stage of the process is accelerating more rapidly and, again later, less rapidly than the basic stage." Lonergan's acceleration of the productive process, which introduces more as well as better producer goods, emphasizes the growth in equilibrium output that innovations or new combinations make possible. The larger equilibrium output ensures that resources and labour, diverted from firms that are made redundant by the rise in productivity, will be put to use in a growing economy.<sup>46</sup>

Apart from Lonergan's express inclusion of economic growth in his theory, the surplus and basic phases of Lonergan's pure cycle parallel Schumpeter's boom and normal depression. For both Lonergan and Schumpeter, a surplus phase or expansion is characterized by a "surplus" or profit beyond the normal returns to management and other factors of production. The surplus phase requires reinvestment of profits to ensure that the social dividend of extraordinary profit benefits the whole society. Lonergan uses the term social dividend in Schumpeter's sense that the profits in an expansion are "certificates for future services or goods yet to be produced." Reinvestment of the social dividend ensures that the future goods and services will indeed be produced.

The framework of a pure cycle, with its differences between the two phases—expansion in means of production followed by expansion of consumable goods and services—seems to me key to understanding

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<sup>45</sup> *CWL* 21, 291-292; *CWL* 15, 142-144.

<sup>46</sup> *CWL* 21, 243; *CWL* 15, 35

innovative growth. I think that Lonergan has two main criteria for balanced growth in the normative case: that new money and credit flow to producers; and that entrepreneurs reinvest the extraordinary profits of an expansion—profits beyond normal returns to labour, management, material, and lenders.

For Lonergan, income includes wages and salaries, depreciation allowances narrowly defined, interest and dividends. Depending on income size, different proportions are consumed and saved. My understanding of Lonergan is that basic income is income that is consumed or becomes part of one's standard of living however large. Surplus income is income that is saved and invested. The proportions of total income consumed and invested, not their proprietary sources, are significant for the macro economy. Here again Lonergan uses functional distinctions that can be tracked statistically. Lonergan notes that in a surplus expansion "if the pure surplus income is captured by the higher income brackets alone, the anti-egalitarian shift in the distribution of income is being achieved" and savings will be sufficient.<sup>47</sup> When profits are reinvested, the basic expansion in the production of consumer goods and services can also be completed.

Economists have recognized the link between cycles and growth as well as the lag in the production of capital goods. Finn Kydland with Edward Prescott, the 2004 Nobel laureates in economics, have integrated production lags into their linear growth models.<sup>48</sup> The general equilibrium linear growth model adapts well to mathematical modelling. Economists apply this framework to the study of growth in two ways: (i) by distinguishing in the time series data between the average or trend growth rate and deviations from it (detrending), or (ii) by using growth rates of the economic variables calculated from the data. Lonergan uses growth rates, but does not use statistical data in his general theory as it is not an empirical analysis. He does use algebra, however, to explain the relationships among the variables in the cycles of innovative growth.<sup>49</sup>

## 7 Conclusion

As I understand Hayek and Schumpeter, the generally observed facts of growth and development theory are the following: (i) new money or credit is needed by producers to begin an expansion; (ii) labour and materials are newly employed to build new means of production, create new organizations or markets, or provide new production services; (iii) the production lag is followed by a rising output of consumer goods or

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<sup>47</sup> *CWL* 21, 286; *CWL* 15, 135.

<sup>48</sup> Finn Kydland and Edward Prescott, "Time to Build and Aggregate Fluctuations," *Econometrica*, vol. 50, no. 6, 1345-1370.

<sup>49</sup> See generally Eileen de Neeve, *Bernard Lonergan's "Circulation Analysis" and Macrodynamics* (unpublished doctoral dissertation, McGill University, 1990).

services; (iv) the production lag implies variations in consumption and investment; (v) the profit component of the price of consumer goods increases in an expansion and decreases as production is added and scarcity is overcome, a process which changes the distribution of income over the period.<sup>50</sup> These five points are present in Lonergan's dynamic theory.

The nineteenth-century liberal maxim of "thrift and enterprise" helped the surplus or capital expansions of that time. However, society as a whole did not benefit until later in the century because profits were maintained by investing in other countries, or by exporting abroad the surplus expansions related, for example, to railway construction.<sup>51</sup> The general equilibrium theory for an economy at rest calls for people to maximize profit and utility or satisfaction—utility being more or less narrowly defined. While efficiency remains a criterion, dynamic theory is not well served by economic behavior that only maximizes profit and utility.

If we follow Lonergan's discussion of the human good, the behaviour of those acting in the economy would depend on their understanding the operations of the economy's production phases and on a shared willingness to act in ways that move the production of both surplus and basic goods toward benefiting society as a whole.<sup>52</sup> I think that Lonergan would favour general government policies that aim at the following broad goals: (i) within general educational and cultural opportunities, to develop people's economic understanding and their capacities for production; (ii) to develop economic and social infrastructures and communication; (iii) to facilitate the entry of new businesses of all sizes into production; and (iv) to ensure that the reinvestment of profits is as broad and as efficient as possible.

While government, corporate or institutional bureaucracies are necessary for stable societies, Lonergan notes the limitations of bureaucratic policies and programs. He comments on the harm done by sustained government deficits, or sustained current account imbalances that are caused by excess imports, exports or international financial flows. In his article "Healing and Creating in History," Lonergan calls for creativity on the part of individuals and groups to bring renewal and cultural change so that economic growth and development will benefit equitably, though not equally, one and all.<sup>53</sup> Economics would thus

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<sup>50</sup> Free entry is an assumption of general equilibrium theory. It is needed to ensure that "the law of cost" applies in which prices are equal to the marginal cost of production.

<sup>51</sup> Eric Hobsbawm, *The Age of Capital: 1848-1875* (London: Abacus 1997), 47-61.

<sup>52</sup> Bernard Lonergan, *Method in Theology* (New York: Seabury Press 1979[1972]), chapter 2.

<sup>53</sup> *CWL* 15, 97-106, 101.

include a moral dimension to achieve outcomes less socially and economically costly than crises and depressions.

The quotation from Hayek, which begins the section on his thought, echoes Lonergan's view of economic science as distinct from the physical sciences.<sup>54</sup> For Lonergan, economics is both a human and an empirical science. Within the production constraints of the economic system, outcomes depend on what or whom we choose as producers and consumers and how we understand economic dynamics. Lonergan argues that the human sciences such as economics need to understand human behaviour not through narrow assumptions about rationality but by assuming that people choose economic actions within a cultural framework of values that are chosen cooperatively in institutions by those involved, and with the sanctions needed to deter rule breakers.<sup>55</sup>

Although economists such as those I have discussed are aware of the need for a general dynamic theory, the theoretical framework of their analysis remains Walrasian equilibrium extended in linear growth. Perhaps Hayek was right that the discussion of dynamics remains unclear because economists have been reluctant to use the term "profit" in macroeconomics after Marx. Lonergan's theory can contribute a new generalization to the study of innovative growth and cycles.

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<sup>54</sup> *Method*, 248.

<sup>55</sup> See for example Amartya Sen's *Idea of Justice*, (Cambridge, Mass.: Harvard University Press 2009), 179; Elinor Ostrom's *Understanding Institutional Diversity* (Princeton, N.J.: Princeton University Press, 2005), chapter 4.