Income Distribution in Economic Growth: Ideas from Bernard Lonergan

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Abstract

The paper introduces Lonergan’s theory of income distribution in the framework of his cycle of innovative growth. Changes in Income distribution depend on the growth process and the phase in which the economy finds itself. The paper then reviews how economists have understood and measured income distribution.

Lonergan’s equilibrium pure cycle and its phases are related to other economic thought. Lonergan’s pure cycle of innovative growth is an equilibrium process in which production of new consumables lag the production of capital—Lonergan’s surplus and basic expansions. Lonergan’s ideas on distribution are explained in his theory of profit—his pure surplus income, and in his theory of consumption—his basic income.

The cycle of pure surplus income or profit is driven by the innovative investment and the new money and credit it attracts. But economies in general have not adapted to changes in pure surplus income and tend to turn expansions into financial bubbles in the effort to maintain profit levels as the expansion matures. Income distribution does not become egalitarian enough to increase the demand for consumer goods and services.

When demand is insufficient, prices fall. Lower prices discourage businesses, and a downward spiral of prices and incomes may follow. The paper concludes with some policy related questions that are raised by Lonergan’s ideas on income distribution and growth.

Income Distribution and Growth: Ideas from Bernard Lonergan

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Introduction

Lonergan explains his theory of income distribution within the framework of his pure cycle of innovative growth. Income distribution, he says, depends on the growth phase. Lonergan's theory is echoed in the work of Simon Kuznets, an American economist, who, forty years ago, developed the hypothesis that inequality increases in the early stages of economic growth and decreases in the later stages.[1] His research on business cycles is remembered in the Kuznets Cycle of ten to fifteen years.

This paper reviews current ideas on income distribution, before turning to Lonergan's pure cycle of innovative growth. That pure cycle explains how pure surplus income (or net profit) and basic income (or consumption) change over the cycle. The paper concludes by raising questions that may offer areas for future research.

What Is Income Distribution and How Does it Change in Economic Growth?

Economists have always preoccupied themselves with how the wages and surplus from production are divided. Starting from his labour theory of value, Marx argued that all income from production belongs to the worker. Classical economists posited a wage-fund theory of wages that made wages dependent on the size of the fund and the number of workers. Neo-classical economists developed the hypothesis that each factor's marginal productivity determined its income. In other words, more of a factor will be used in production (workers, managers, researchers, machines, materials, and the money and credit needed for them) as the factor benefits overall production.

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[1] http://ex.wikipedia.org/wiki/Kuznets Curve. Accessed January 2009. There is no consensus on statistical support for the Kuznets Curve or on the time frame intended. Kuznets acknowledges secular growth and shorter periods such as a decade. However, growth over a decade is more influenced by transient or business cycle effects. See for example, Simon Kuznets, *Economic development, the family, and income distribution: Selected essays* (Cambidge: Cambridge University Press 1989) 8-9; Kuznets, *Postwar Economic Growth: Four Lectures* (Cambridge: Harvard University Press 1964) 105.

Factor payments, in the general case, accordingly depend on the supply of factors, and the demand for them.[2]

Whether the poor benefit from economic growth has led some economists to show that low levels of education, lack of access to financial resources, and little government support prevent the poor from participating in economic growth.[3] Other researchers have shown that "the poor generally benefit from growth-enhancing policies," specifically those related to investment.[4]

Income distribution is a measure of how the income earned in production is distributed among those who engage in it. Income may also be redistributed through government policies and legislation as well as international finance. Although other measures are available, the Gini coefficient and the related Lorenz curve are the ones commonly used.[5] The Gini coefficient measures income distribution on a scale of 0 to 1, or 0 to 100 percent. Incomes are equal at 0 and become more unequal as percentages rise.

While most developed, or post-industrial economies have Gini coefficients below thirty, the UN places the U.S. Gini rating at forty. Income inequality has risen in the United States since the 1980s, and is rising in Asian countries that have seen fast economic growth. As Alan Greenspan commented in 2005, increasing income inequality "is not the type of thing which a capitalist democratic society can really accept without addressing." U.S. data for 2006 show that households in the two top quintiles, or 40 percent of the population, are better educated, work full-time, and are more likely to have two income earners. In households with incomes falling in the bottom quintile, or

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[2] James L. Huston *Securing the Fruits of Labor: the American Concept of Wealth Distribution 1765-1900* (Baton Rouge: Louisiana State University Press: 1998) Huston calls for a recognition of the costs and rewards of the cooperation required in large corporate production systems of market capitalism. Rewards must allow people to "have a sense of belonging to a 'just' society and have an interest in its perpetuation." 396-406.

[3] http://ex.wikipedia.org/wiki/hernando_de_Soto. Accessed April 2009. Hernando de Soto argues that developing countries often lack an integrated formal property system, which prevents the poor from using their informal ownerships as collateral for credit to enable investment and growth.

[4] Economic Growth and Income Inequality: Reexamining the Links, http://www.worldbank.org. Accessed February, 2009. See Edgar Pardo-Beltran, "Effects of Income Distribution on Growth," CEPA Working Paper 2002-16. www.newschool.edu/cepa. Accessed February 2009. See also Robert J. Gordon & Ian Dew-Becker, "Where did the productivity Growth Go," paper presented at the 81st meeting of the Brookings Panel on Economic Activity, Washington, December 8-9, 2005. They argue that while a basic tenet of economic science is that productivity growth is the source of growth in real income per capita, over the period 1966-2001 only the top 10 percent enjoyed a real wage growth rate equal to or greater than the average rate of economy-wide productivity growth. Growth in the median (at the 50 percent level) real wage and salary income barely grew at all. They find that "skill-biased technical change" is a less important explanation of the changes in income distribution than the "economics of superstars," the escalating compensation of CEOs, while deunionization, immigration, and free trade have pushed down incomes at the bottom.

[5] The Lorenz curve measures the Gini coefficient as the ratio of the areas below the equal income diagonal.

the bottom 20 percent of the population, less than 20 percent have people that work 50+ weeks per year and less than 10 percent have 2+ income earners. Moreover, a large proportion of their household income comes from government transfers. [6]

What is Lonergan's Pure Cycle Theory of Innovative Growth?

Of itself, (the pure cycle) would not involve a contraction. It would be simply a matter of the intermittent emergence of acceleration lags in a general movement of expansion. Such a pure cycle can be shown to have an exigence for rather vigorous adaptation on the part of human agents as one phase succeeds another. It can further be shown that the lack of such adaptation transforms the pure cycle into a trade cycle: the free economies of the present day are overadapted to the surplus expansion, which they exaggerate into booms, but underadapted to the basic expansion, which they convert into slumps.[7]

Mainstream economists frame economic growth in an equilibrium process of the real economy of goods and services. The process is characterized by investment that, with a lag, produces consumer goods and services. Economists assume that the money supply will grow with the real economy and will be managed by the central bank and the government. Economists further assume a natural rate of unemployment, which depends on both technical factors in production and the degree of monopoly in a given industry.

I would argue that Lonergan's pure cycle theory of innovative growth is a similar equilibrium process, one in which the production of new producer goods precedes the production of new consumables—Lonergan's *surplus and basic expansions*. Innovation creates the net profit that can be reinvested, as net profit is above the normal returns to production (wages, other compensation, interest, dividends, replacement investment).

Lonergan diagrams the channels of money flows of outlays, incomes, and expenditures that create market supply and demand. There are two sets of channels: basic flows and surplus flows, with crossover flows between them. In the static equilibrium case these flows are circular, connected, and roughly constant. Flows in the

[6] Income Inequality in the United States, http://wikipedia.org. Accessed January 2009.

[7] Bernard Lonergan, *For a New Political Economy*, Vol. 21, Collected Works Edition, edited by Philip McShane (Toronto: Toronto University Press, 1998), 275-276; Lonergan, *Macroeconomic Dynamics: An Essay in Circulation Analysis*, Vol. 15, Collected Works Edition, edited by Frederick G. Lawrence, Patrick H. Byrne, and Charles C. Hefling, Jr., (Toronto: Toronto University Press, 1999), 115.

channels expand and contract as money flows from and to a redistributive function change, reflecting people's spending decisions.[8]

Lonergan names a *redistributive function* (banks, government, global finance) through which money and credit are redistributed, in order to finance investment and consumption. In a growing capitalist market economy, redistribution occurs through bank credit to producers and consumers in the private sector. However, governmental and international redistributions have become significant in economic growth.

Lonergan understands the redistributive role of government, in general, as acting within a balanced budget. Furthermore, in Lonergan's equilibrium theory, international finance depends on balancing a national economy's current and capital accounts with the accounts of other national economies. However, as Lonergan explains, export surpluses, or foreign investment, as well as government deficits may provide new money and credit for a nation's economic growth.[9]

What is Lonergan's Theory of Income Distribution?

Lonergan's theory of income distribution is explained in his theory of reinvested net profit—his *pure surplus income* theory, and his theory of consumption—in other words, his *basic income*. Rather than distinguishing between wages and profits, Lonergan makes a *functional distinction* between the share of income spent on consumption and the share spent on capital or investment. He asks, How much of the incomes of business and households is spent on each in any given period? In other words, What proportion of wages and salaries, interest, dividends, government taxes and transfers, and corporate retained earnings is spent on investment and on consumption?[10] For Lonergan, tracking variations in these proportions is crucial for macrodynamic equilibrium.

To explain his theory of income distribution Lonergan divides the population into groups that earn equal incomes. This method is similar to the current division of the population into groups earning a range of incomes—population quintiles or deciles. Lonergan argues that migrations between groups over time will change the income distribution. Whereas increases in the number and share of savings in higher income groups will tend, he says, to provide the savings needed for new investment, migration of numbers to lower income groups,

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[8] Flows of outlays, incomes, and expenditures depend on the understanding, judgments, and choices of people in their decisions about how to consume or invest. Understanding the changing economy and judging what to do is complex. As Lonergan says, the problem is not greed but a lack of understanding.

[9] Lonergan, *Macroeconomic Dynamics,* 83-86, 165-173; *For a New Political Economy,* 94-96, 310-317.

[10] Lonergan, *Macroeconomic Dynamics,* 49-52, 69; *For a New Political Economy,* 70-75, 252-258.

and rising shares of consumption, especially in those groups, will tend to increase consumption in the economy.[11]

Lonergan's Cycle of Pure Surplus Income or Net Profit

In his earlier and later work on economics, Lonergan includes an initial *proportionate expansion* in his growth cycle. He contends that growth in the proportionate expansion increases both consumer and capital goods production and incomes as the economy moves towards its current potential. The expansion may extend to include a major expansion in the production of new, and more, capital goods and services—Lonergan's *surplus expansion*.[12] It is this surplus expansion that ends in a crisis when it fails to extend the production of consumer goods and services sufficiently to maintain employment and incomes.

The process is driven by the expectations of innovative investors and the new money and credit they attract. The rising income of successful innovation creates extraordinary profits that can be reinvested to extend economic growth. Once the production of new capital goods reaches the limits of the market (resources, skills, demand), the growth in investment plays itself out, until new innovation and investment restart the process. As Lonergan puts it, "the surplus expansion is only an acceleration lag ... and so the basic stage accelerates at an ever greater pace while the surplus stage begins to realize that it has acquired as great a potential as possibly can be used."[13]

As a surplus expansion matures, profits per unit of output tend to return to normal levels, but they will vary among firms depending on their advantages.[14] If the economy were to adapt as an expansion peaks, the producers of goods and services would understand and accept the decline in the extraordinary profits of innovation for the time being. Distribution would shift towards groups that spend more of

11 Lonergan, *Macroeconomic Dynamics*, 134-135; *For a New Political Economy*, 285-286.

12 Lonergan, *Macroeconomic Dynamics*, 75-80, 115; *For a New Political Economy*, 50, 280-281. Lonergan's major surplus expansion includes "new" as well as "more" capital goods, thus including both innovation and growth in his macroeconomic theory. Examples are the development and growth of personal computers, the internet, alternative energies, or new financial instruments for the global economy. Lonergan differs in this from Schumpeter who distinguished development from growth in his *Theory of Economic Development*. Schumpeter is nevertheless an important influence on Lonergan.

13 Lonergan, *For A New Political Economy*, 296-297; *Macroeconomic Dynamics*, 151.

14 Lonergan, *For a New Political Economy, 231; Macroeconomic Dynamics,* 5. Lonergan links the systematic variation in net profits in an expansion with Keynes explanation of the marginal efficiency of capital. For Lonergan, in a long-term acceleration of the productive process, net profits rise initially and revert to zero in the later stages. For Keynes, the rate of new investment will be pushed to the point, at which the marginal efficiency of capital in general is equal to the rate of interest or the cost of capital. For Keynes the marginal efficiency of capital is the rate of return over cost. John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (London: Macmillan & Co.Ltd. 1961[1936]) 136-141.

their income on consumption, thus raising demand for the production of consumer goods and services in the economy. A larger economy would then maintain the reinvestment demand for capital goods and services, preventing a decline in that production as well.

Lonergan's Cycle of Basic Income

The surplus expansion creates the capital stock, services, and skills needed to expand the production of consumer goods and services. But that expansion—Lonergan's *basic expansion*—depends on incomes in the economy shifting from investment to consumption. This can be achieved if income shifts to households that spend more of their income on consumption, or through government provision of public services via the tax system.[15]

Lonergan argues that the required shift in incomes towards consumables and less towards increased savings, investment, and net profit is not understood and is at the basis of economic declines:

. . . the complaint is that there exists, in the mentality of our culture, no ideas and in the procedures of our economies, no mechanisms, directed to smoothly and equitably bringing about the reversal of net aggregate savings to zero as the basic expansion proceeds. Just as there is an anti-egalitarian shift in the surplus expansion, so also there is an egalitarian shift in the distribution of income in the basic expansion.[16]

In Lonergan's equilibrium cycle, investment is sufficient to lower profits to normal levels; thus employment and demand grow as income shifts to those who spend more of their income on consumption. But economies in general do not adapt to changes in pure surplus income and tend to turn expansions into financial bubbles in an effort to maintain profit levels as the expansion matures. Moreover, to maintain profit levels, businesses may emphasize financial returns over returns from the real production of goods and services.

Businessmen understand that the demand for capital products is no longer growing, and the prices of consumables is beginning to fall. Prices fall as scarcity is overcome with the rise in the production of consumables following the investment lag. Business expectations shift from profits to losses, and the economy moves into a crisis and recession. As unemployment rises, income distribution remains

[15] Lonergan, *For a New Political Economy*, 285-292; *Macroeconomic Dynamics*, 133-144.
[16] Lonergan, *For a New Political Economy*, 297; *Macroeconomic Dynamics*, 153.

skewed towards those whose incomes are protected by contracts or other legal means. Skewed incomes can include various forms of compensation for employment, interest income, pensions, rents, dividends, and some government transfers. In some cases contracts can be renegotiated, and bankrupty protection may limit income rights.

Money, Prices, and Income Distribution

Lonergan's diagram of basic and surplus financial channels draws attention to the financial effects on real incomes and saving. As Schumpeter insisted, an expansion requires an increase in money and credit to allow the entrepreneneur to acquire the means of production. This increase tends to raise money incomes and consumer prices—Lonergan's *cycle of the basic price spread*. Higher prices reduce real incomes and spending, especially of lower income groups who spend more of their incomes on consumption.[17]

The profits that result from such higher prices will tend to go to people in higher income groups. When these relationships prevail, the economy is well adapted to capital expansions. To maintain the capital expansion, the financial system—Lonergan's redistributive function—makes credit available as long as price increases are limited.[18] Lonergan explains that price inflation will be limited as long as the savings required by the surplus expansion are sufficient. This will tend to be the case if more income goes to profits or to households already receiving high incomes.[19] Lonergan concludes that *incomes will be more inegalitarian during the early stage of an economic growth*

[17] Lonergan, *For a New Political Economy,* 38-39. I substitute the word "money" for Lonergan's more general term "the dummy" in the chapter "What is Money" in my book *Decoding the Economy: Understanding Change With Bernard Lonergan,* Thomas More Institute Papers 2008.

[18] Lonergan argues that interest rates are ineffective tools in macroeconomic dynamics. High rates do raise savings. But they harm business borrowing for production in the real economy. *Macroeconomic Dynamics*, 141-144; *For a New Political Economy*, 290-292. Further, high interest rates will not deter financial speculation as long as profits are greater than the interest cost. High interest rates may increase foreign investment, which can lead to economic development. So the net effect of higher interest rates in a global economy is difficult to determine.

[19] What Lonergan called "a rate of saving" in his 1944 essay was called "a social dividend" in his later work. He defines a social dividend as follows: (1) income over and above "standard of living," rent, interest, maintenance and replacement of capital equipment; and (2) the means given to entrepreneurs, investors, because they are the most likely to be able to interpret what it is for, namely, the successful introduction into the economic process of technological, commercial, or organizational improvements; and he asks who else would know which are the possible improvements that would succeed. *Macroeconomic Dynamics*, 133.

process. [20] Economic data indicate that this is particularly the case in countries that are industrializing.

When the expansion of new investment goods peaks, new savings are no longer needed; the income distribution that kept new savings flowing must then become more egalitarian. *Incomes that are more fully consumed increase the demand for consumer goods and services as production shifts from new producer goods to new consumer goods following a lag.*

Once the downturn takes hold, Lonergan argues that the fall in profits or the rise in losses and bankrupties of the recession will continue until the aggregate net savings out of incomes matches the aggregate net investment from profits and high household incomes, and until prices fall enough to increase people's purchasing power and demand. Both will tend to bring the recession to an end.[21]

Lonergan's theory of income distribution is linked to both monetary and real changes in production, incomes, and spending in innovation and growth. According to Lonergan, if business understood the lag between capital investment and the production of related consumables, and adapted income distribution to enable changes in investment and consumption in a timely way, crises could be avoided or minimized.

Concluding Questions on Income Distribution in Economic Growth

Lonergan's ideas on income distribution raise questions as to whether profit maximization is an unqualified economic goal or whether profits are simply a measure of efficiency in production and an indicator of business prospects.

A second question revolves around the possibility of directing the continued savings, from high profits and income in an expansion, to investments in projects that offset high social costs. Those costs could be subsidized if people, through their businesses, governments, or non-profit organizations, choose to do so. Projects that come to mind relate to tax reform, infrastructure, health care, education, pollution reduction, as well as cultural and sport activities.

My final question is whether Lonergan's income distribution theory is actually a response to his search for ethical principles based in economic theory.[22]

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[20] Lonergan, *For a New Political Economy*, 287-288; *Macroeconomic Dynamics*, 135-137. Lonergan also criticizes unions whose demands for more income as prices rise, may prevent the saving required in a capital or surplus expansion.

[21] *For a New Political Economy*, 306-307; *Macroeconomic Dynamics*, 162.

[22] See Lonergan, *A Third Collection*, edited by Frederick Crowe (New York: Paulist Press, 1985) 108: "From economic theorists we have to demand, along with as many other types of analysis as they please, a

new and specific type that reveals how moral precepts have both a basis in economic process and so an effective application to it." See also "Dialogues in Celebration" Session X11, Questions with Regard to Method: History and Economics, An interview of Bernard Lonergan by Eric O'Connor and Cathleen Going (Montreal: Thomas More Institute Papers 1980, 304. "The antithesis (to an economic solution) is the family wage. The family wage means: we rule the economy by the needs of the family. It has never worked. What you have to do is rule the economy by the intrinsic requirements of the economy." Bracketed text added.