Lonergan’s Economic Ideas Today: Functional distinctions in spending, the pure cycle of innovative growth, the good of order, and the baseball diamond.

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Abstract

Lonergan’s central distinction between the flows of money and credit to investment or consumption is used to explain the economic behavior of producers and consumers in the process of innovation and growth. As the expansion matures in the increased production of consumer goods, falling profits discourage producers. Employment and incomes falter. That, in turn, leads to slackening demand for consumer goods and services, further discouraging producers. Soon the economy is in recession. Lonergan explains how the economic downturn can be avoided or limited by economic players understanding the variations in profits and prices during innovative growth and adapting as the situation changes.

Setting the economy in a social context, attention is drawn to Lonergan’s good of order in an economy: the state of production, exchange, consumption, and finance that currently exists. Change can come with new understanding and judgment, and often difficult choices.

The paper concludes with a discussion of Lonergan’s baseball diamond diagram, which graphs his pure growth cycle and illustrates its equilibrium criterion.

LONERGAN'S ECONOMIC IDEAS TODAY:
functional distinctions in production, the pure cycle of innovative growth, the good of order, and the baseball diamond.

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INTRODUCTION

After a brief consideration of why Lonergan was attracted to the study of economics early and late in his adult life, the paper presents two central ideas of Lonergan's economic thought, *the functional distinction in production and spending between investment and consumption*, and *the pure cycle of innovative growth,* which is Lonergan's equilibrium theory of macroeconomic dynamics. Because the economy is also embedded in society the second part of the paper discusses two of Lonergan's central ideas on social and cultural order and change, *the good of order* and his normative notion of social and cultural dynamics, *Cosmopolis*. Finally, in the appendix, the paper interprets the *Baseball Diamond*; Lonergan's circuits of economic payments that illustrate his functional distinctions and his dynamic equilibrium criterion.

WHY ECONOMICS?

Why ever did Lonergan research and write on the economy? Wasn't his principal desire and concern directed to the study of philosophy and theology? At the age of 25, Lonergan returned to Canada after undergraduate studies in England. The world was sinking into the long and deep economic depression that followed the boom years of the 1920s and the stock market crash of 1929. Everywhere he saw businesses closed and unemployed people without income. Banks were calling in loans or failing, so that people lost their savings, and businesses could not borrow credit for their operations. In those days governments believed that the economy, as a free market, would work best without government action. Poor relief could be organized locally but was overwhelmed by the number of unemployed needing help.

Moreover, government leaders did not understand the links between the money supply, the gold standard, the national economy, and the world economy. They raised tariffs on imported goods in the hope of encouraging domestic production. But their markets in other countries failed because foreign producers could not sell their products abroad because of tariffs, and could no longer import goods from abroad. Depressions spread from one country to another. North American economies continued to decline until 1934, when governments, like the Roosevelt administration in the U.S. began to provide public works and other remedies.

Lonergan had studied mathematics and philosophy in England. Economics, a human science that studies a system of interrelated events that change historically, and are influenced by human behaviour, combines both mathematics and philosophy. Economics seeks to understand how people behave competitively and cooperatively as they produce, distribute, and exchange scarce goods and services. Explaining the relations among the many variables in economic analysis can often require the use of mathematics. Perhaps Lonergan's long interest in social and economic issues prepared the development of his thought as he wrote Insight, especially chapters 6 and 7.

Lonergan worked on understanding economic processes in his spare time from 1930 to 1944 while he was teaching full time or working on his Ph.D. in theology at the Gregorian University. We know from the Lonergan Archives that he read Schumpeter and Hayek among other economists.[1] He himself also mentions Keynes, Wicksell, Kalecki, and Kaldor. Lonergan returned to Canada from studies in Rome in June 1940. In Montreal, he taught theology at the Jesuit seminary of the French-Canadian province, l'Immaculée, defended his thesis, wrote the two essays on economics, and published three papers on his thesis for the Theological Studies journal by 1944.[2]

Lonergan wrote the economics essays to explain how key variables interact and how they change over time. The variables he studied were investment and consumption in production, income distribution, relative and money prices, money flows and circuits, governments in the economy, and international trade and currencies. These variables are related in schemes of recurrence.[3] How the schemes operate depends on people in their economic activities. Lonergan argues that the failure to understand the schemes of recurrence of the economic system or to adapt to their requirements explains the occurrence of booms and slumps. His economics proposes an ideal or norm of equilibrium economic development and growth that offers the possibility of avoiding the crises of business cycles.

The paper now turns to a discussion of two of Lonergan's central economic ideas.

WHAT IS LONERGAN'S FUNCTIONAL DISTINCTION BETWEEN INVESTMENT AND CONSUMPTION IN PRODUCTION?

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[1]Lonergan Research Institute, Toronto, Canada; www.lonergan-lri.ca. See also Eileen de Neeve, *Bernard Lonergan's "Circulation Analysis" and Macrodynamics"* (Ph.D. Dissertation, McGill University, 1990) 46.

[2] Richard M. Liddy, *Transforming Light: Intellectual Conversion in the Early Lonergan* (Collegeville, Minnesota: The Liturgical Press 1993); William A. Mathews, *Lonergan's Quest: A Study of Desire in the Authoring of Insight* (Toronto: University of Toronto Press 2005); Cathleen Going, Pierrot Lambert, Charlotte Tansey, interviewers and editors, *Caring About Meaning: Patterns in the Life of Bernard Lonergan* (Thomas More Institute Papers, 3405 Atwater Ave. Montreal, Canada H3H 1Y2, 1982)

[3] Bernard Lonergan, *Insight: a Study of Human Understanding*, edited by Frederick E. Crowe and Robert M. Doran, CWE 3 (Toronto: The University of Toronto Press (1957) 1992)

Lonergan's emphasizes the centrality of production in an economy. He distinguishes two kinds of production and spending that occur in any developed economy. Investment spending produces tools, equipment, offices, roads, shops, banks, education, healthcare, weapons and training for defence or war, and entertainment. Consumption spending creates the demand for the production of goods and services in our standard of living: food, shelter, concerts, transport, and recreation or leisure. For example, creating a new bank is investment spending, while using a bank's financial services is consumption spending. Investments perform a necessary but indirect function in producing our standard of living. Without the bank we would not have financial services.

Our standard of living in the developed world depends on the income we earn when we produce both the necessary infrastructure of institutions, equipment, and know-how and, as well, the consumer goods, services, and leisure we choose. Most people spend their income on both consumption and investment. In the developed world it is often possible to supplement people's low incomes through the tax system, or provide for unemployment and incapacity through social policies.

Lonergan also emphasizes that economies are changing systems that expand when people innovate; that is, find new ways to produce more or better with the same resources. Economies also grow when the number of people producing and consuming in them grows. However, Lonergan's analysis abstracts from population change and fundamental technology change to focus on innovations and the investment related to them. Lonergan emphasizes the functional distinction between investment and consumption to draw attention to the crucial changes in spending that must be understood to successfully complete economic growth.

Lonergan tells us that when the production of goods that we call investment, capital, or surplus goods is dominant, the economy needs more savings and investment from income earners. Businesses find money to invest from their profits, from financial institutions, such as banks and the stock market, as well as from foreign investment. To make this possible the distribution of income needs to be less egalitarian. People with higher incomes have more disposable income and save more. Or a climate of savings and investment can be encouraged in a society, for example, by government policies that respond to climate change issues. Or, as Lonergan explained in Canada during World War II, inflation could be avoided if governments issued bonds to encourage saving. With production concentrating on weapons and military training in wartime, there were fewer consumer goods to buy and wartime incomes might bid prices up.

As an economy industrializes and equipment, buildings, education and healthcare systems are in place and staffed by qualified people, and the country is not at war, the proportion of income that can be consumed is larger and the standard of living of more people rises. Consumption income rose in England in the 1870s and in the United States and Canada after the Second World War. After tax incomes became more egalitarian. As Lonergan explains, the distribution of income needs to reflect the development requirements of the production system.

I think that Lonergan's functional distinction between capital and consumer goods production does not necessarily imply that there are well-defined production stages in the macroeconomy as a whole. He clearly says that investment and consumer good expansions can take place within a single firm and can be simultaneous.[4] However, the stages of economic development are clear in industrial revolutions such as the recent economic development in China. Incomes in the investment stage of an industrial revolution will be inegalitarian as they were in the past in England, Germany, and Japan. The investment stage depends on innovative investment (or imitative investment in the case of economies that develop later), and takes time to complete.

In ongoing innovative growth in developed economies the stages of development are less distinct. We can think of examples of people doing their investing in the spare time after producing what they need to live: people study in their spare time; corporations do ongoing research and development on production processes, marketing or organization. Nowadays investment can also be affected by government action or by factors external to a national economy. Nevertheless aggregate statistics for the total economy in Canada and the United States show periods of above average investment: for example during most of the 1960s, for shorter periods in the 70's, 80's, and during the dot.com boom of the 90's. These were also periods of strong overall economic growth. For the United States the data shows that personal incomes and private domestic investment seem to move together. Because personal income is an aggregate, that does not tell us about income distribution.

What remains clear, however, is that we can distinguish the indirect function of investment in production and the saving or new credit it demands. We can also distinguish the direct function of the products we produce and the leisure we consume as part of our

[4] Bernard Lonergan, *For a New Political Economy*, CWE 21, edited by Philip J. McShane (Toronto: University of Toronto Press 1998) 25, 54.

standard of living, as well as the shift in our disposable income, big or small, from saving to consumption.

Lonergan assures us that the distinction between investment and consumption in production is not proprietary; it does not matter who owns the product. Nor does the distinction depend on the product itself; trucks could be capital or consumer goods. The distinction depends on whether the product makes possible a standard of living or is part of that standard of living. Writing a new book would be investment. Selling the book may well create consumption that raises people's standard of living. People who work independently from home do figure out what part of their house or apartment is an office, and they include it in their cost of production, rather than in their consumption.

The next section of the paper discusses a second central idea of Lonergan's economic thought, his pure cycle or equilibrium of innovative growth.

IS THE PURE CYCLE OF INNOVATIVE GROWTH AN IDEAL OR NORM OF MACROECONOMIC DYNAMICS WITH A PROBABILITY OF ACTUALLY OCCURRING THAT DEPENDS ON CHANGE AND HUMAN ERROR?

In both periods of his life when he worked on economics, Lonergan refers to the distinction between the actuality of economic and political events and the normative or ideal or what I think are classical laws in the social sciences such as economics. He draws parallels with classical laws in the natural sciences: the law of falling bodies can only be proven in a vacuum. Otherwise falling bodies do not fall at 32 feet /second/second because they will be affected by other forces such as friction, etc.[5] Similarly, equilibrium in innovative

[5] Bernard Lonergan, *For a New Political Economy*, 25-26.

growth only occurs when human behaviour adapts to the exigencies of the process.

In his 1942 essay Lonergan defines four possible phases or states of the economy: the stationary state, the capitalist phase or an economic state of investment expansion, a materialist phase or an economic state of a rising standard of living, and a cultural phase or an economic state of "developing cultural pursuits". I would argue, as I did above, that these states of the economy could occur more or less together except in the case of an industrial revolution.[6] Lonergan himself notes that the stationary economy exists only in theory. In his 1944 essay Lonergan distinguishes a proportionate expansion in which both capital and consumer goods grow together, a surplus or capitalist expansion, and a basic or consumption expansion. In the 1944 essay, I think, the cultural expansion may have been included in both the capital and consumption expansions because functional distinctions are similar in the process of building cultural institutions and consuming their products.

In Lonergan's pure cycle, or what I have called equilibrium innovative growth, there is only a forward movement and no downturn. Lonergan argues that the normative process is not what occurs. In the event there is disequilibrium because of misguided money creation or reduction,[7] and a misunderstanding of the function of profit variation during an expansion. In his later discussion of *mistaken expectations*, Lonergan explains that the basic mistake is the failure to understand the variation from normal profits in an expansion. The extraordinary profit is a "social dividend" intended for reinvestment to ensure that the investment expansion benefits society

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[6] Bernard Lonergan, *For a New Political Economy*, 241-242; *Macroeconomic Dynamics: An Essay in Circulation Analysis*, 33-34.
[7] Bernard Lonergan, *For a New Political Economy*, 59.

as a whole.[8] Like Keynes Lonergan calls for a social level of investment.[9]

In his late period of work on economics Lonergan begins his introduction by stating that there are classical laws in economics. We can think of the laws of supply and demand, of the time priority of investment over consumption in particular innovations, and the phenomenon that bad money drives out good. The probabilities with which economic laws hold in an economy can be determined in statistical studies of the past, but may change in the future. While human communities help to devise the changing schemes of recurrence in an economy, those economic schemes depend, in turn, on the ecologies of nature on the one hand, and underpin social and cultural structures on the other. Lonergan draws attention to the fact that "the concrete and dynamic component" in changing social schemes of recurrence "is supplied by human individuals." [10] Social outcomes, including economic ones, will depend on whether individuals act with knowledge, and a willingness to ensure that the outcome will also benefit others.

In these first two sections I have discussed two key elements of Lonergan's economic thought: his functional distinction between investment and consumption in production, and his understanding of innovative economic growth and crises. Lonergan offers a more developed theory of equilibrium economic growth that distinguishes sharply the dynamics of investment and consumption over time, as well as the way in which people's incomes, spending, and production must adapt in order to benefit society as a whole.

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[8] Bernard Lonergan, *Macroeconomic Dynamics: An Essay in Circulation Analysis*, CWE 15, edited by Frederick G. Lawrence, Patrick H. Byrne, and Charles C. Hefling, Jr. (Toronto: University of Toronto Press 1999) 80-82.
[9] J. M. Keynes, *The General Theory of Employment, Interest, and Money* (London: MacMillan & Co. Ltd. (1936) 1961) 325.
[10] Bernard Lonergan, *Macroeconomic Dynamics: An Essay in Circulation Analysis, 3*-5.

HOW DO LONERGAN'S ECONOMIC IDEAS CONNECT WITH SCHOOLS OF ECONOMIC THOUGHT TODAY?

Lonergan's economic analysis remains important. Economists are still concerned, as Lonergan is, about the sufficiency of saving and investment for innovative growth, the variations in income distribution needed over time to encourage investment or sufficient consumption demand as the productive process requires, and the matching of money supply growth to growth in the real economy.

Still, economic theory continues to be plagued by controversy. I think, however, that the controversies are based on different weightings given to economic variables in analysis, and on different notions of government's role in the economy. One question concerns the possibility of reducing unemployment. Do government benefits discourage work? Should governments and corporations increase spending to help workers to adapt to innovations in production? Does unemployment depend on the degree of monopoly in production and on technical change? Is executive compensation in world corporations excessive when employees' compensation has increased very little?

Meanwhile in much of the economy competition is intense. Corporate producers work to maintain profits and share prices so that shareholders will not sell their shares and bonuses will keep their gifted employees happy. Nonprofits struggle to maintain their funding and balance their budgets. Moreover, in our time, the global economy is a scene of intense international competition. China is huge and competes, along with other emerging economies, with national economies that industrialized earlier. The growing world demand for resources is currently raising costs, and higher prices are cutting into living standards. The world economy is an evolving playing field with new teams.

I think Lonergan agrees with economists who emphasize the role of real innovation, research, and investment in production and economic growth. Currently that would include economists like Finn Kydland and Edward Prescott, and Paul Romer. These economists assume that money is neutral in their economic growth theories, and they call for a stable monetary policy without money surprises.[11] Money is also considered to be neutral or well behaved in Lonergan's normative pure cycle of growth and development. Like Lonergan they also include a lag between investment and the new output related to it.

But Lonergan's pure theory calls attention to more than market equilibrium. He explains that there are more fundamental equilibria that matter in macrodynamics; such as, a changing balance of income flows between the financing of investment and of consumer goods in production and spending. The changing balance in aggregate financing can be defined by diminishing returns to further investment and the shift of finance to the production of related consumer goods. Such changes can work if they are balanced by changes in income distribution from profit income that is saved and invested, to consumption income.

For Lonergan, a properly functioning economy implies that producers' receipts and production incomes must be acceptable to society as a whole.[12] As Lonergan states elsewhere, "One has to place first human society, which is served by the economic process, and

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[11] Their theories of economic growth are discussed in my book, *Decoding the Economy: Understanding Change with Bernard Lonergan* (Thomas More Institute Papers 2008)
[12] Bernard Lonergan, *Macroeconomic Dynamics*, 92.

second the economic process, which is to be served by money . . . and not vice-versa."[13]

However, I think that Lonergan also emphasizes that money growth often does not adapt smoothly to the changes in investment and consumption needed for economic growth. Lonergan recognizes that there are sources of disequilibria, such as innovations in money and monetary products (mortgage-backed securities, junk bonds) as well as government policies that run counter to the changes in production. Such changes may result in booms and slumps that rebound on production and incomes. Here I think he would tend to agree with the Keynesian economists who acknowledge the effects of financial crises on real production, employment, and income and call for monetary and fiscal policies to restart the economy.

Nevertheless, Lonergan did not turn to governments as a panacea to remedy the failures of the market economy. He emphasized that the role of government is constrained by the need to balance spending with taxes, at least over the medium term. Rather, Lonergan argued for a better understanding on the part of citizens and business of the changing flows of money between investment and consumption during economic innovation and growth so that actions might increase the likelihood of an equilibrium process.

The next section of the paper moves beyond economics to consider two of Lonergan's ideas on patterns of human activities by which societies progress or decline.

WHY IS THE NOTION OF THE GOOD OF ORDER IMPORTANT?

We can think of the good of order in terms of baseball, because Lonergan's metaphor for the economy is a baseball game that depends

[13] Bernard Lonergan, *For a New Political Economy*, 101.

on the skills of the players, the managers, and the coach, how they work together, what new plays, equipment, or bats have been developed and how the other team has changed since their last game. How will the behaviour of players and managers have to change?

Lonergan's approach to economics is developmental as is his approach to historical development in Insight and Method and elsewhere. The past is history on which we can build or which we can repair now for a better future. Regarding development, Lonergan comments, "our starting point is already determinate: we have to face things as they are, we may never lose sight of them or attempt to reckon without them. But not only is there ever the broad and unalterable datum of things as they are; there are also the limitations which this datum imposes on things as we are going to make them."[14]

Lonergan's good of order, I think, emphasizes the order that actually exists, and it is good in the sense that at least, the schemes of recurrence of the economy are operating. I understand the economic and political systems or schemes of recurrence that we have right now as examples of Lonergan's good of order. As the quotation above states, Lonergan emphasizes that changes depend not on theories or ideologies but on what is possible economically and politically in a dynamic system that can change for the better or for the worse. We can hope and work for changes for the better. Development will come with the insights of individuals and their intersubjective groups, insights that are developed, chosen and become broadly accepted in a society. The good of order recalls for people the importance and limitations of their actions as consumers, investors, and citizens in the world economy and national states.

[14] Bernard Lonergan, *For a New Political Economy*, 74.

The trouble, as we know, is that the ideas of individuals and groups can be too narrowly defined or biased by a limited concern for their own interests. Such biases can and do move society towards decline. Unfortunately it is difficult to read the meaning of current events if we are not familiar with the background stories. While the danger signs may be hard to read it is important to discern as clearly as possible the trends going forward in the economy and state. Economic and political breakdowns may come abruptly through wars, financial crises or natural disasters.

To come back to Lonergan's distinction between the normative and the actual, it seems to me that Lonergan's notion of a normative process of change is Cosmopolis that transposes the issue, as he tells us, from the social systems concretized in the police and courts, the laws of diplomacy and war to the "level of culture and morality."[15] But the normative process depends on the development of self-knowledge in individuals and their collaborative groups. And self-knowledge is historically dependent on cultural development, which in turn is built, for Lonergan, on the "security and leisure generated by technological, economic, and political advance."[16]

I think that Cosmopolis as process calls on people and groups to "ridicule, explode, destroy" myths and illusions created by dominant economic and political elites. That is the role Ronald Biener, a Canadian political theorist, sees for people like himself,[17] and I think it also applies to economic theorists. Their role is to criticize the behaviour of politicians, business people, and citizens in general, when their actions or omissions show tendencies to misread economic or

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[15] Bernard Lonergan, *Insight: A Theory of Understanding* (Toronto: University of Toronto Press 1992) 262-263, 619-620.
[16] Ibid. 558-559.
[17] Ronald Biener, *What is the Matter With Liberalism?* and *Liberalism, Nationalism, Citizenship: Essays in the Problem of Political Community* cited in my book, *Decoding the Economy: Understanding Change With Bernard Lonergan*, 137, 171.

political processes, breaking down the good of order that exists rather than developing it. The role of theorists is different from the roles of politicians and citizens. People's choices are more or less limited by the mechanics or processes of economic and political systems. Economics, like politics is the art of the possible. In the end, how societies work depends not just on corporations, governments, lobbies, etc. but also on all of us individually as consumers, investors and citizens.

As Lonergan demonstrates in *Insight* and elsewhere, human beings are characterized by an unrestricted desire to know and love. In their economic lives people express this desire in innovations that can raise people's standard of living. However, Lonergan also notes in "Healing and Creating in History" that there is a tendency for our intellectual development to outrun our moral development and, on the other hand, our wish to help others may fail because of a lack of knowledge of a situation.[18] As Lonergan comments, " the economic process can be wrecked by the stupidity of capital or by the stupidity of labour, by the demand of high profits or high wages out of due season."[19]

It seems to me that Cosmopolis as a normative process synthesizes liberal thought of the 19th century with Marx's social philosophy. The 19th century liberals believed that some automatic economic mechanism would ensure progress. Marx responded to the social costs of industrialization by anticipating social disintegration in a revolution that he believed would bring a utopia beyond politics. Lonergan assures us that, because of our practical intelligences, there will always be technologies, economies, and politics, and we must work with the data as we find them. On the other hand Lonergan

[18] Bernard Lonergan, *Macroeconomic Dynamics: An Essay in Circulation Analysis*, 97-106.
[19] Bernard Lonergan, *For a New Political Economy*, 70.

rejects out of hand the alternative of excessive bureaucratic leadership in the economy or state because bureaucracies depend on planning that tends to restrict the introduction of innovations that do not fit the plan or, in the state, bureaucracies tend to restrict the freedom of citizens to create social development. Lonergan would rely on individuals and their groups in democracies to be informed and vigilant to correct bureaucratic tendencies that can divert or limit social progress in both the economy and the state.[20]

SUMMARY

To summarize, this paper has presented two of Lonergan's ideas that are central to his economic thought. The first is the functional distinction between investment and consumption and the different roles in production they imply. The production of producer and consumer goods are related to each other as producer goods are used in the production of consumer goods. Moreover, the importance of one or other in the economy can vary over time. People as economic agents and citizens must be aware of the requirements of the economic system and understand what policies will benefit society as a whole.

Lonergan's second economic idea discussed here is his pure cycle of innovative growth. The pure cycle is a development of the equilibrium theory of economic growth that is presented by supply-side economists such as Finn Kydland and Edward Prescott, and by Paul Romer. Lonergan's innovative growth also focuses on the variations is prices and income distribution that result from the lag in production between investment and the output of consumer products. Both the

[20] Bernard Lonergan, *Topics in Education*: *The Cincinnati Lectures of 1959 on the Philosophy of Education*, edited by Robert M. Doran and Frederick E. Crowe (Toronto: The University of Toronto Press, 1993) 60-61; *For a New Political Economy*, 34-35.

lag and the changes in prices and income distribution are more evident in an industrial revolution but can be discerned in all economic growth. By drawing attention to the variation in prices and income distribution Lonergan shares the concerns of Keynesian economists who deplore the levels of unemployment that too often accompany innovative economic growth. He argues that the extraordinary returns to innovation are a social dividend normally intended for reinvestment to extend production, employment and the standard of living to the whole society.

The paper also addressed two of Lonergan's ideas on social and historical dynamics. First discussed was *the good of order*, which is Lonergan's notion of the actual functioning of the schemes of recurrence of the activities of people as economic agents in their production, consumption, investment, and money payments. There are related schemes of recurrence of the activities of people as citizens in paying taxes, receiving the benefits of public production, as well as supporting economic policies, and the nonprofit production that they think will benefit others. Lonergan's notion of schemes of recurrence is both dynamic and indeterminate. The outcomes depend on people and clearly the schemes' functionings can move towards social progress or social decline.

The second of Lonergan's ideas on society and history addressed by the paper was his notion of Cosmopolis, which is his social and historical ideal, related to the dynamisms of social and cultural systems. The direction of development of these systems depends on people's practical, intellectual, and moral-religious understanding, as well as their willingness to act in ways that benefit people now and in the future.

APPENDIX

WHY DID LONERGAN MAKE HIS BASEBALL DIAMOND DIAGRAM?

Lonergan uses the diagram to explain his theory graphically, possibly because he had himself found economic diagrams helpful. It tells us metaphorically about macroeconomic dynamics and the circulation of money payments for goods and services, and for production costs (wages, salaries, interest, and dividends). His baseball diamond tells us that the economy is a game in which teams compete and members of each team cooperate. Like a baseball game, the economy is as a dynamic system in which money instead of a ball is pitched by producers, investors, or consumers. As participants at the Boston Lonergan Workshop discovered, the Boston Red Sox baseball team won the World Series in 2007 because they had outstanding players and managers, enjoyed the support of the community, and played well as a team. In the economy some of us are outstanding players, such as Bill Gates or Warren Buffett. Others play on less important teams, but we are all players in the economic game. The game has rules that are sometimes hard to interpret, and some players will win while others will lose. The diagram illustrates that the players' economic activities are the significant payment flows between producers, investors, and consumers of functionally distinct but related products. Such flows need to balance or move towards equilibrium in a growing economy.

Figure 1 shows the bases of the baseball diamond. Sp = production and supply of producer or capital goods and services. Production and supply require outlays (O) that become incomes to those who make production possible. Dp = investment income (I) and demand for capital goods and services. Sc = production and supply of consumer goods and services that require outlays (O) to the incomes of those who make production possible. Dc = consumption income (I) and demand for consumer goods and services. The diagram puts home plate where consumption income or the standard of living is located.[21] The choice makes sense because the main purpose of production is not profit, although profit is an important measure of efficiency, but to provide people with their standard of living.

The sources of money for investment are banks and other providers of financial services, such as insurance companies, stock markets, and private capital funds (household and business saving), governments (saving from tax revenues, or government borrowing), and international or foreign corporations or governments (foreign saving). These sources of money are shown at BGF.[22] All three circulate money through the system and are sources of new money for expansions.

Development or innovative growth in the real economy of goods and services depends on matching changes in money and credit so that businesses can invest and operate. Part of the problem in the Great Depression, and in the recent financial crisis that resulted from

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[21] Bernard Lonergan, *For a New Political Economy*, 118.

[22] The position of the functionally distinct production of consumer goods at the top of the diagram follows Lonergan's 1944 essay in *For a New Political Economy*, page 258 and *Macroeconomic Dynamics: An Essay in Circulation Analysis*, page 181. The final diagram on page 199 of the latter volume inverts the positions of the kinds of production and consumption in the diagram. I do not think that difference is significant, but consistency could help understanding..

non-payments by U.S. sub-prime mortgage holders when interest rates increased, was that banks failed and money and credit became scarce. In such cases, some businesses find their credit restricted, or worse, face bankrupty, and new businesses are unable to start-up. Jobs disappear and debts pile up for consumers as well.

Figure 2 aims to illustrate the distinction between the two kinds of production. As discussed above, Sp and Sc are functionally distinct in the sense that producer goods are defined by the fact that they are not consumed, but are used in the production of consumer goods. Because they are used to produce consumer goods they may be prior in time especially when the producer good is buildings and equipment, or human capital development in education and training.

The crossovers in the diagram are from outlays (O) of both kinds of producers to the incomes (I) of their employees, managers, creditors, and shareholders, insofar as these receivers of income demand the other kind of product. That is why they are called crossovers. These crossovers go one way from producers to the opposite kind of income and demand. For equilibrium or normal growth crossovers must balance. That is Lonergan's dynamic equilibrium criterion.

As Figure 2 may help to make clear, the equilibrium or balance of this dynamic process depends on more than balancing market supply and demand. It also depends on the balance of flows of outlays (O) and incomes (I) that determine investment or demand for producer goods (Dp), and consumer spending or demand for consumer goods (Dc). For example, we can ask whether the trend towards zero saving by households in the United States maintains the balance between investment and consumption? Are the other sources of saving such as business, governments, and international finance providing sufficient investment in the economy? Alternately, is the high rate of household saving in China balanced between consumption and investment? What roles do other sources of saving from government or foreign investment play there? In any event, we cannot legislate the saving rate in a free society except through policies that might encourage saving, or might persuade citizens that saving will benefit them in the medium term.

Figure 3 focuses on demand (Dp and Dc) and supply (Sp and Sc), not in the aggregate but as divided between consumption and investment. Currently in North America about 80 percent of GDP is consumed and 20 percent invested. The investment share rises to 24 percent in a boom and falls to about 18 in a recession.

In a theoretical stationary economy in equilibrium, in which 80 is used as an index of consumer good production and 20 is used as an index of producer good production, the crossover flows would be equal and measure 16. This measure would keep the rate of consumption and investment unchanged in the economy as producers of producer goods would consume 16 and invest 4 (a ratio of 4 to 1) using up their production income of 20. Producers of consumer goods would consume 64 and invest 16 (a ratio of 4 to 1) using up their production income of 80.

In most developed economies governments produce some health care, public housing, and education in different ways. Moreover, governments have been given a role to provide income and some possibility of retraining for people who lose their jobs in an economic recession. Governments implement their income redistribution policies through the tax system. The public provision of goods and services and income redistribution depend on the taxes received from incomes and sales in the whole economy. The public sector's payments and receipts are included in Lonergan's diagram. Inflows to government in BGF are taxes and fees from producers and consumers, and outflows are government expenditures.

Nonprofit production is also a growing sector in developed economies.
Government grants, private sector philanthropy, volunteer services, and fees fund nonprofit enterprise production. Nonprofit production is included in Lonergan's diagram as flows from BGF to either or both kinds of production. Other payments to and from nonprofit enterprises would move as payments in the rest of the economy. Nonprofit enterprises do not account profits, and must otherwise demonstrate their efficiency to obtain funding. Because they have no profit to reinvest, their grants, donations, and fees must allow for reinvestment and development.

Figure 4 is intended to explain the arrows. Note that in figure 4, producer goods are referred to as P goods. The two arrows pointing from both production outlays (O at Sc and Sp) to income (I at Dc) are the flows from all incomes that are to be spent on the consumer goods that are produced. The inner arrow from Dc to Sc shows the purchases made by that income. Similarly, the two arrows pointing from both production outlays (O at Sp and Sc) to income (I at Dp) are the flows from all income that is being spent on investment in the production of producer goods. The inner arrow from Dp to Sp shows the purchases made by that income. Recall that investment and consumption income will be augmented or reduced by money flows from and to banks, governments, and international sources (BGF) made by individuals, corporate or human who are doing the consuming or investing.

SUMMARY

Lonergan's Baseball Diamond diagram distinguishes between the functions of investment and consumption that are generally regarded as important in economic growth. Because it is a diagram of payment flows, the importance of changing money flows to and from each kind of production and spending is underlined more clearly than would be the case when only aggregate changes in the supply of money and credit are followed. The appendix does not discuss the real or monetary changes that occur in innovative growth, which can tend towards an equilibrium process or towards booms and slumps. Nor has the appendix discussed the diagram in terms of actual economic events.

Fig.1

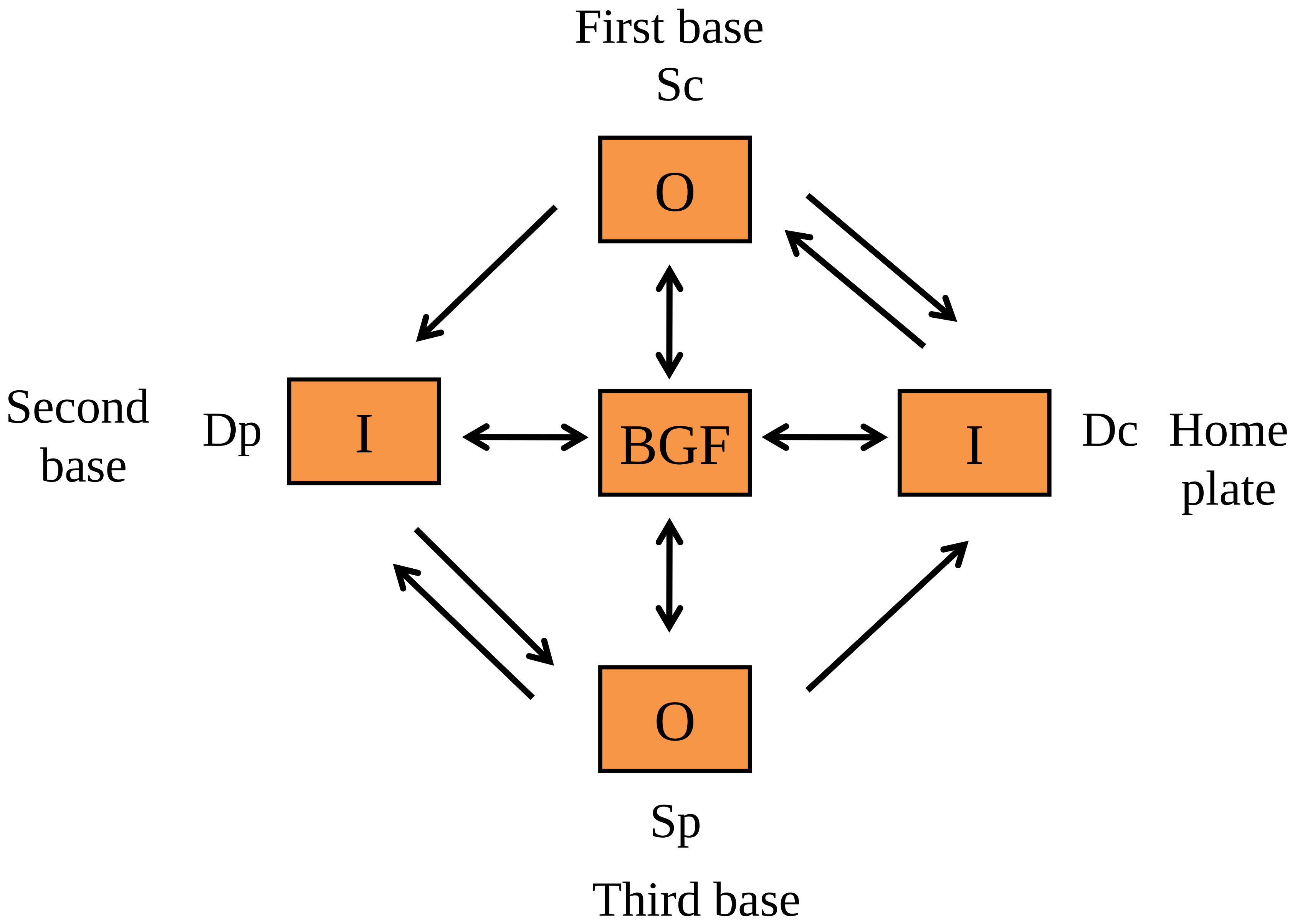

First base
Sc
O
Second
base
Dp
I
BGF
I
Dc
Home
plate
O
Sp
Third base

Fig.2

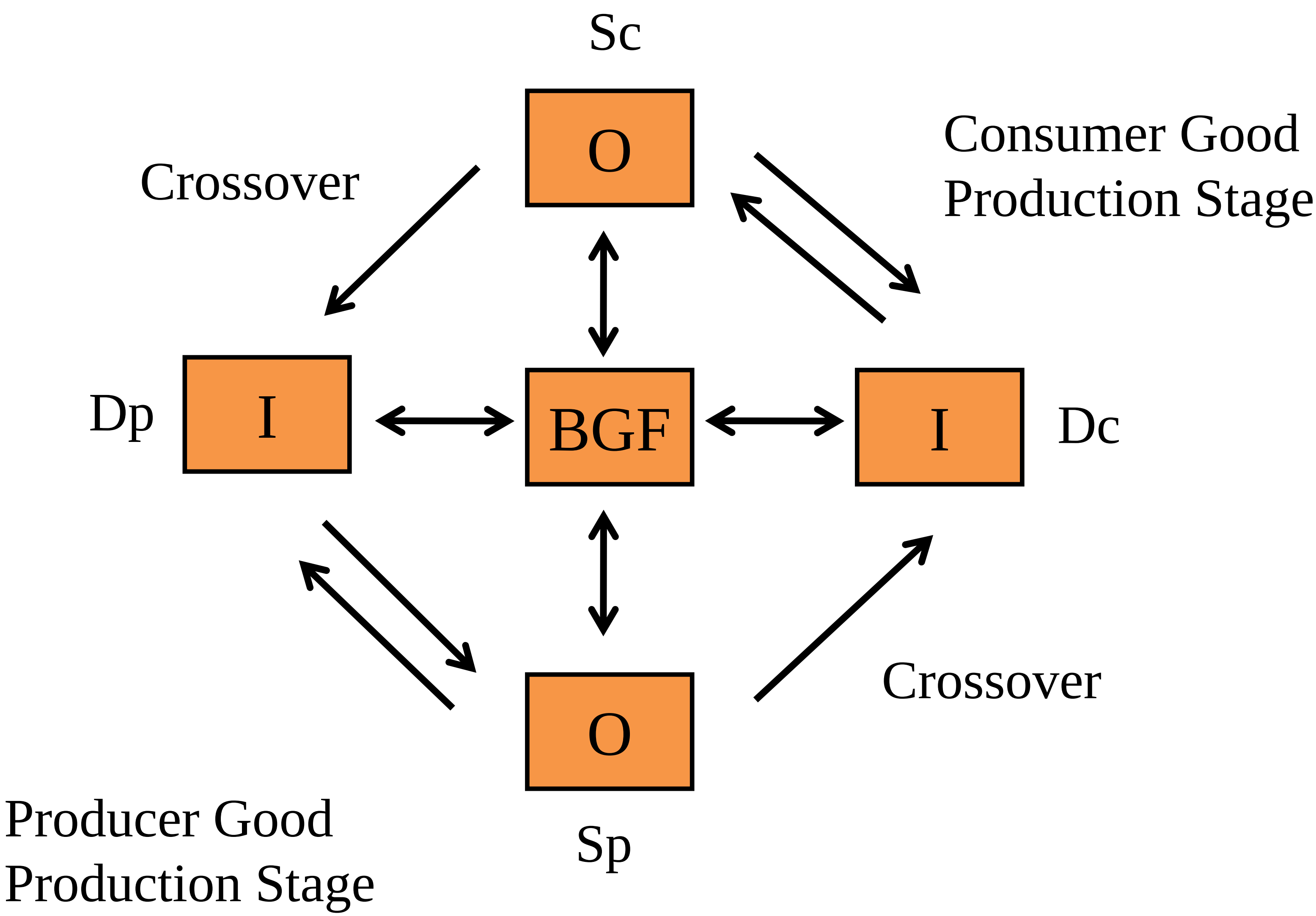

Sc
O
Crossover
Consumer Good
Production Stage
Dp
I
BGF
I
Dc
O
Crossover
Producer Good
Production Stage
Sp

Fig.3

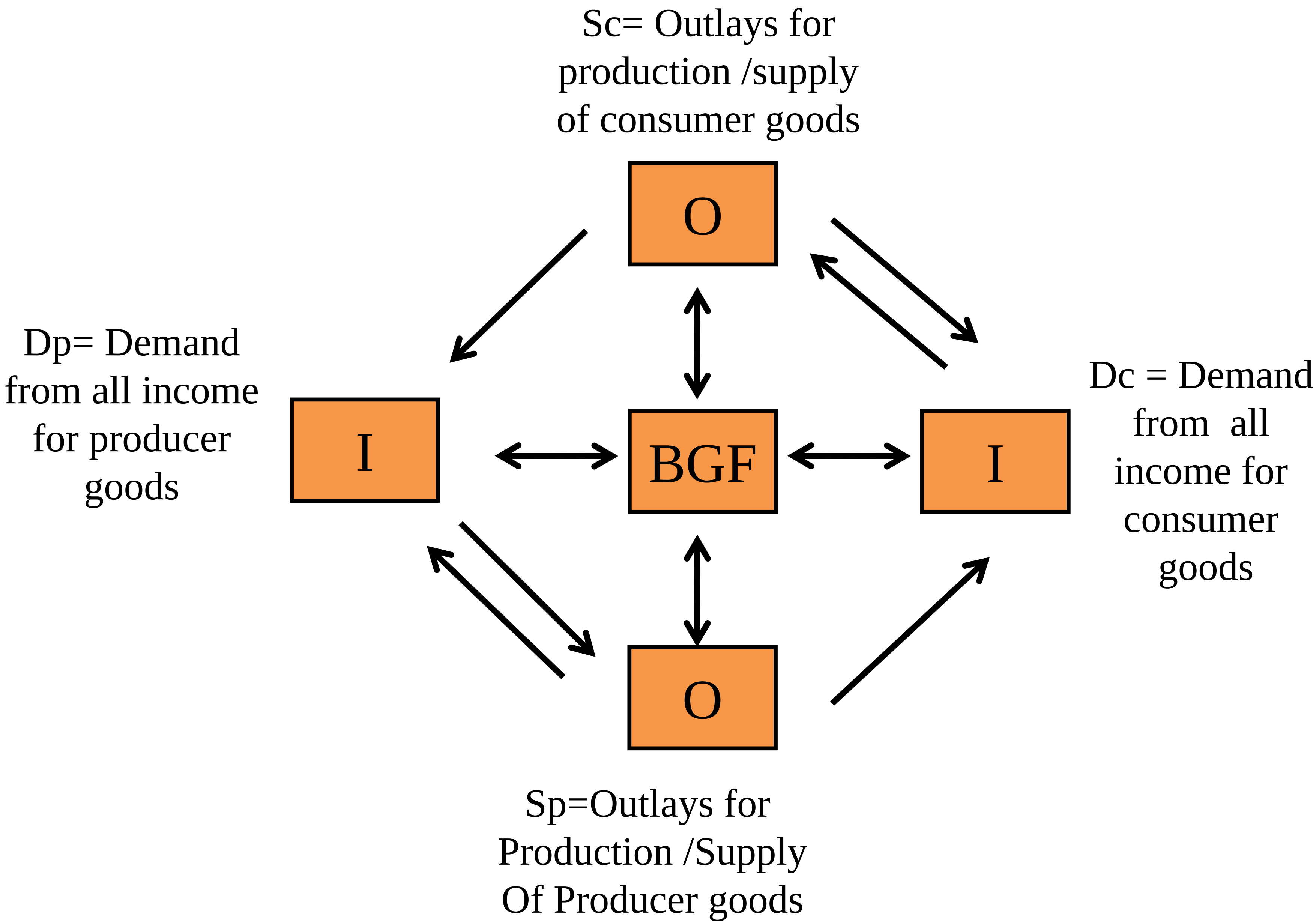
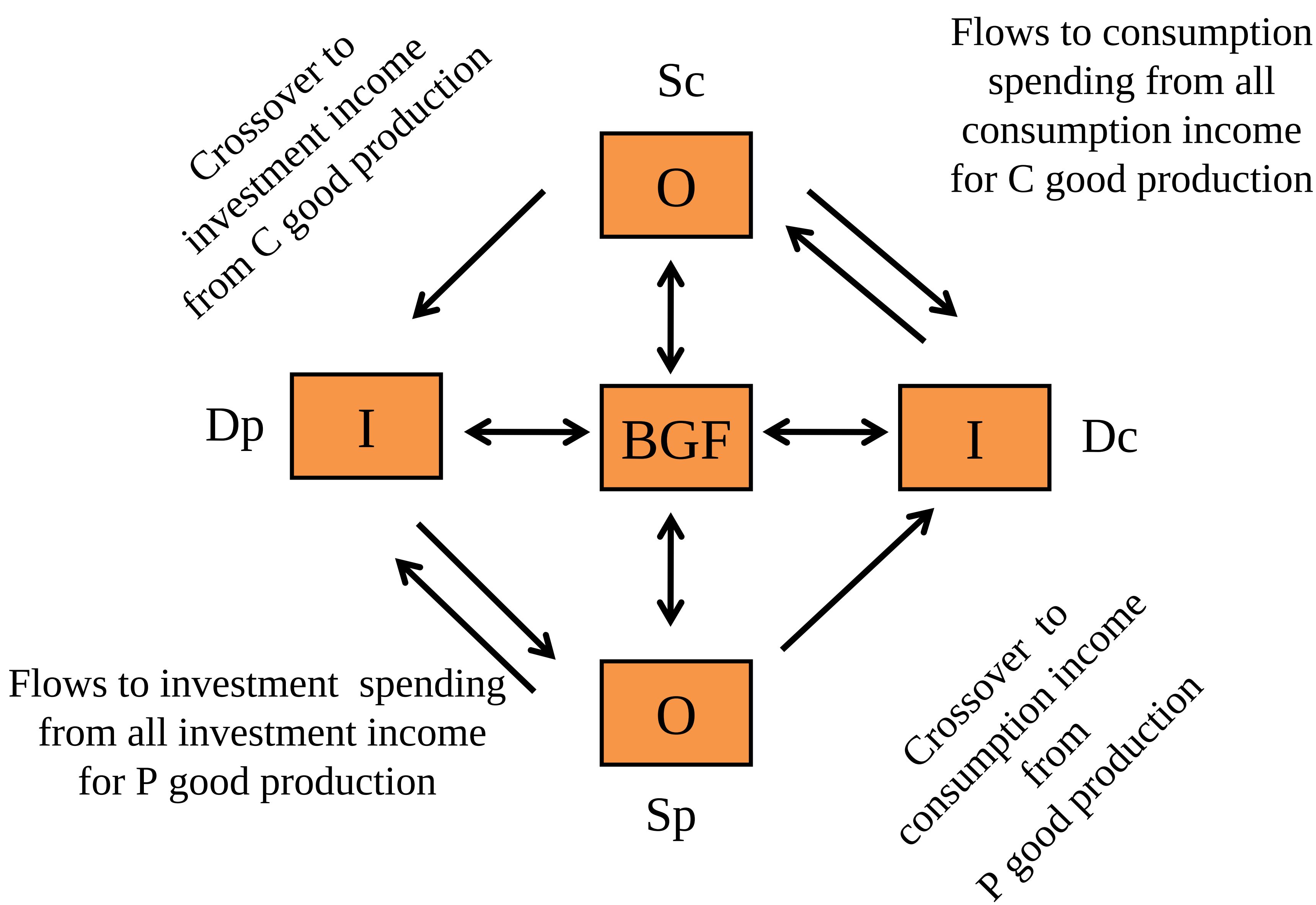

Sc= Outlays for production /supply of consumer goods
O
Dp= Demand from all income for producer goods
I
BGF
I
Dc = Demand from all income for consumer goods
O
Sp=Outlays for Production /Supply Of Producer goods

Fig.4


Crossover to
investment income
from C good production
Sc
O
Flows to consumption
spending from all
consumption income
for C good production
Dp
I
BGF
I
Dc
Flows to investment spending
from all investment income
for P good production
O
Sp
Crossover to
consumption income
from
P good production