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THE  
FORMATION  
OF  
CAPITAL

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*by*  
Harold G. Moulton

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## Foreword to the New Edition

This book is republished with the gracious permission of the Brookings Institution, Washington, DC's first "think tank." Dr. Harold Glenn Moulton (1883-1965), the author, served as Brookings' first president from 1916 to 1952. *The Formation of Capital* is a succinct presentation of the principles of money, credit, banking and finance, as well as the detailed research and historical analysis, on which Moulton based his critique of President Franklin Delano Roosevelt's New Deal and his recommendations for an alternative program for economic recovery.

One might ask, of what relevance is this book to scholars and policymakers seeking to address the economic problems of the 21<sup>st</sup> Century? Today speculative uses of money and credit, along with massive government and consumer debt, threaten to bankrupt families, companies and nations alike. *The Formation of Capital* shows how we can reform the financial system to foster more rapid rates of sustainable growth while reversing our mounting deficits and debt. Moulton's work offers a framework for monetary policy that can spread prosperity, power and freedom to every citizen.

Moulton also raises a radical point: Economic progress and growth need not be limited to existing accumulations of savings. Furthermore, his findings prove that the economy grows faster when it is not dependent on past savings, and businesses can employ "future savings" to finance their economic growth. ("Future savings" are profits used to repay

loans for capital formation and acquisition of existing productive assets by new owners.)

As Moulton explains,

Even though the flow of funds from individual savings for investment purposes may, for the moment, be inadequate, it is still possible to procure liquid funds with which to buy essential materials and employ the necessary labor.

Funds with which to finance new capital formation may be procured from the expansion of commercial bank loans and investments. In fact, new flotations of securities are not uncommonly financed — for considerable periods of time, pending their absorption by ultimate investors — by means of an expansion of commercial bank credit.<sup>1</sup>

This book upsets one of the most fundamental assumptions in modern economics and finance: that new capital formation is impossible without first cutting consumption, saving, then investing. This assumption leads to treating commercial bank credit as if it were a commodity in limited supply.<sup>2</sup> Modern economists thereby assert that the “supply of loanable funds” determines the “production possibilities curve,” that is, the rate at which economic growth can be sustained.

Moulton believed that treating bank credit as a commodity was largely responsible for the slow pace of recovery from the Great Depression. Consequently, Moulton set out to analyze the financial causes of the Depression and formulate

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<sup>1</sup> Harold G. Moulton, *The Formation of Capital*. Washington, DC: The Brookings Institution, 1935, 104. (All cites of *The Formation of Capital* in this foreword reference the first edition.)

<sup>2</sup> Harold G. Moulton, *Financial Organization and the Economic System*. New York: McGraw-Hill Book Company, Inc., 1938, 402. (*Financial Organization and the Economic System* is a rewrite of Moulton’s earlier work, *The Financial Organization of Society*, initially published in the 1920s, and the last edition of which was published in 1930 before the New Deal made substantial changes in the economic system, especially regarding the role of the central bank and government debt.)

guidelines for a recovery program. Brookings published his findings in *America's Capacity to Produce* (1934), *America's Capacity to Consume* (1934), *The Formation of Capital* (1935), and *Income and Economic Progress* (1935). These volumes examined the structures and institutions of the American economy in the wake of the Crash of 1929, and presented the results of Moulton's "investigation of the distribution of wealth and income in relation to economic progress."<sup>3</sup>

Although these books were written in response to a specific set of historical circumstances, the reader will see distinct parallels with the economic downturn and global financial crisis that has befallen us in the 21<sup>st</sup> Century. Although Moulton presented basic principle of economic recovery in broad terms and without a specific policy agenda ("It would need to be highly detailed to meet the peculiar situations of varying industries, and the time is not yet ripe for the presentation of anything more than general principles"<sup>4</sup>), he clearly stated that, "If we are to achieve the goal of satisfactory standards of living for everyone, the first requirement is to increase progressively the total amount of the income to be divided."<sup>5</sup>

In other words, the solution to economic downturn is not redistribution, but increased production in order to generate incomes that would be distributed according to market principles. Moulton noted,

The distribution of income from year to year is of *primary* significance not for its momentary effects upon the well-being of the masses, but for its possible cumulative effects in promoting a fuller utilization of our productive facilities and a consequent progressive increase in the aggregate income to be available for distribution. We are not interested in maintaining a static situation in which

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<sup>3</sup> Edwin G. Nourse, "Director's Preface," Dr. Harold G. Moulton's *Income and Economic Progress*. Washington, DC: The Brookings Institution, 1935, vii.

<sup>4</sup> *Ibid.*, 164.

<sup>5</sup> *Ibid.*, 83.

the total income, even if equally distributed, would be altogether inadequate; we are interested rather in producing a dynamic situation in which increasing quantities of newly created goods and services would become available for everyone.<sup>6</sup>

This is consistent with Say's Law of Markets, which simply states that production equals income, and thus supply generates its own demand, and demand its own supply. As Jean-Baptiste Say responded to some criticisms of his theories by the Reverend Thomas Malthus (best known for his economics of scarcity): "if certain goods remain unsold, it is because other goods are not produced; and that it is production alone which opens markets to produce."<sup>7</sup> As one reviewer of Moulton's books observed,

### **"DISTRIBUTION IS THE TROUBLE"**

*Dr. Harold G. Moulton, President of Brookings Institution, says that the way our income is distributed provides an inadequate purchasing power for our full production.*<sup>8</sup>

The problem in any economic recovery, therefore, is not over- (or under-) production or consumption, or how to manipulate the price level, the velocity of money, or, worst of all, the volume of money. The problem is threefold: 1) how to increase production, 2) how to distribute the income from production according to relative inputs of labor and capital, and 3) how to distribute that income to people who will use the increased income for consumption, not reinvestment.

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<sup>6</sup> *Ibid.*

<sup>7</sup> Jean-Baptiste Say, *Letters to Mr. Malthus on Several Subjects of Political Economy and on the Cause of the Stagnation of Commerce*. London: Sherwood, Neely & Jones, 1821, 3.

<sup>8</sup> From contemporary newspaper clipping (missing publication information), circa 1935, pasted in copy of Harold G. Moulton's *Income and Economic Progress*, Washington, DC: The Brookings Institution, 1935.

Unfortunately, from the standpoint of developing an effective solution, Moulton noted that almost every school of economics defines “saving” in terms of cutting current consumption.<sup>9</sup> This means that currently accepted economic theory and policy embed the false assumption that financing new capital formation is impossible without existing accumulations of savings.<sup>10</sup>

Policies urging people to cut their consumption to save in order to supply financing for new capital formation are actually counterproductive on at least two counts. One, such savings do not go directly into new capital formation in any event, generally being used as bank reserves to satisfy the fractional reserve requirement. Two, small savers are not only the least able to save out of what is usually an inadequate income, they also receive much less benefit from their savings than the financial institutions who use the savings to meet their reserve requirements. Further, forcing low-income people to save for investment reduces their current ability to purchase available goods and services, thereby decreasing overall demand.

Hence the importance of *The Formation of Capital*, the third book in Brookings’ series on the distribution of wealth and income in relation to economic progress. Reliance on existing accumulations of savings for financing future growth traps the economy in an inevitable “boom and bust” cycle. Income, instead of being spent on consumption to keep production and consumption in balance, is diverted into savings. With fewer customers purchasing what is produced, the financing of future capital used to produce new goods and services becomes less financially feasible.

<sup>9</sup> See discussion in *Capital Expansion, Employment, and Economic Stability*, Harold G. Moulton, George W. Edwards, James D. Magee, and Cleona Lewis, Washington, DC: The Brookings Institution, 1940, 26.

<sup>10</sup> We see this most clearly in the Keynesian, Monetarist (“Chicago”), and Austrian schools of economics.

Financial feasibility refers to the ability of new capital investment to pay for itself out of the future earnings of the new capital. This is an application of Adam Smith's observation that the purpose of production is consumption. A standard test to determine whether a company should invest in new capital is whether there is sufficient consumer demand to support the marketable good or service to be produced. In other words, why add a new productive asset or tool if no one is going to buy (consume) what it produces? Thus, as Moulton emphasizes in this book, demand for capital is derived from consumer demand.

Worse, from the standpoint of political and social stability, using past savings to finance growth accelerates, and provides a rationalization for maintaining and even increasing, concentrated ownership of the means of production. It also leads to expanding the role and powers of the State in a desperate effort to stabilize the economy. The rights of private property (*i.e.*, the rights to the fruits of, and control over, what one owns) are taken from individual citizens and transferred to the State.

This tenet of Keynesian economics seems logical — that economic growth and development require a class of people, necessarily small, who cannot consume all they produce, whereby the excess is accumulated as savings. Since savings equals investment, cutting consumption adds to the amount of wealth in the economy, increases production, and, because it accrues to the current owners who re-invest rather than consume a growing portion of their capital incomes — concentrates ownership even further.

Ideally, according to John Maynard Keynes, no income generated by capital would be used for consumption. Instead, all capital income would be reinvested in ways that create new capital, thereby providing jobs for the masses until full

employment is reached.<sup>11</sup> Thus Keynes and most economists today assume that there is virtually no other means whereby most people can earn an income except in the form of wages paid for their labor.

According to Keynes, this is the only way that society can advance economically. As he asserted in *The Economic Consequences of the Peace*, “The immense accumulations of fixed capital which, to the great benefit of mankind, were built up during the half century before the war, could never have come about in a Society where wealth was divided equitably.”<sup>12</sup> Within the Keynesian paradigm, the purpose of production shifts from providing the means to satisfy people’s material needs and wants, to providing the savings for additional investment in new capital.

Was Keynes correct? Are reductions in consumption — along with a class of very rich people who reinvest most of their capital incomes — the only source of financing for new capital formation? Not according to Moulton. As he summarized the results of his investigation,

We find no support whatever for the view that capital expansion and the extension of the roundabout process of production may be carried on for years at a time when consumption is declining. [*i.e.*, when saving is taking place.] The growth of capital and the expansion of consumption are virtually concurrent phenomena.<sup>13</sup>

If the funds for capital expansion do not come from reductions in consumption — and Moulton’s findings proved *that* conclusively — the question then becomes, what is the source of financing for capital formation? Moulton answered the question as follows:

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<sup>11</sup> John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (1936), VI.24.iii.

<sup>12</sup> John Maynard Keynes, *The Economic Consequences of the Peace* (1919), 2.iii.

<sup>13</sup> *The Formation of Capital*, *op. cit.*, 48.



A new and even more dynamic factor has come into the process of capital formation through the evolution of modern commercial banking. The development of the banking system, with its ability to manufacture credit,

has served to render funds immediately available for the purposes of capital creation without the necessity of waiting upon the slower processes of accumulating funds from individual savings. The result is to sustain productivity at a higher level and to facilitate the growth of new capital at a more rapid rate than would otherwise have occurred.<sup>14</sup>

In other words, new capital formation can be financed by using money created by the commercial banking system. It is not necessary (and is even counterproductive from the standpoint of economic equilibrium and sustainable growth) to rely on cutting consumption to generate the savings necessary to finance new capital formation.

Following Moulton's reasoning, the remedy to an economic downturn is thus not to manipulate the money supply by increasing government debt or bailing out failed speculation (which, among other problems, distorts the operation of the market and places a debt burden on future taxpayers). Nor is it an effective, long-term solution to stimulate demand by subsidizing artificial job creation, legislating higher minimum wages, ignoring market forces in collective bargaining negotiations, imposing price controls or supports (especially on interest rates), or redistributing existing wealth. Such measures may be necessary at times as expedients, but are ultimately self-defeating. Instead, what is needed is to:

- 1) Increase production by financing new capital formation through the extension of bank credit backed by the present value of the future stream of income to be generated by the new capital.

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<sup>14</sup> Moulton, *Income and Economic Progress*, *op. cit.*, 5.

- 2) Get the profits generated by the new capital into the hands of all workers and citizens who will use it for consumption, not reinvestment in additional new capital.

Moulton's findings in *The Formation of Capital* answered the question of where to find the financing for new capital. The final book in the series, *Income and Economic Progress*, attempted to give a broad outline of how to distribute income more equitably. Moulton examined a number of possibilities, such as the New Deal taxation and public enterprise,<sup>15</sup> raising money wages as a road to progress,<sup>16</sup> and distributing income through price reductions.<sup>17</sup> Of these, Moulton believed that the most just and efficient arrangement was through increasing real income by passing through price reductions to all consumers as technology advanced and became increasingly productive relative to labor.<sup>18</sup>

Moulton's reasoning is relatively straightforward. If increased real income were to be distributed through price reductions, and deflation of the money supply avoided by supplying all capital financing through the extension of bank credit backed by the present value of future marketable goods and services, there would be no need for artificial price supports, inflation, or direct taxation to redistribute income and increase existing accumulations of savings to finance capital formation.

Surprisingly, what Moulton omitted from his list of possible solutions was widespread, direct private ownership of the means of production. A broad base of owners and diversity in the forms of productive capital owned would ensure that all workers and as many people as possible, including the disabled and poorest of the poor, would receive income gener-

<sup>15</sup> Moulton, *Income and Economic Progress*, *op. cit.*, 87-101.

<sup>16</sup> *Ibid.*, 102-116.

<sup>17</sup> *Ibid.*, 117-127.

<sup>18</sup> *Ibid.*, 122-124. See also Moulton, *et al.*, *Capital Expansion, Employment, and Economic Stability*, *op. cit.*, 191-193.

ated by many forms of advancing technology, and would use the income from their capital for consumption rather than reinvestment. Moulton did refer to profit sharing as a means of raising wages,<sup>19</sup> but unaccountably did not link this to the property right of receipt of the fruits of ownership.

In a paradox of history that might account for Moulton's omission, two complementary concepts of political economy traveled for centuries along separate paths, adherents of each seemingly unable to understand or even recognize the existence of the other. Supporters of widespread direct ownership of the means of production could not conceive of any way to finance acquisition of capital except through existing accumulations of savings. Conversely, those who believed that money could be created as needed to finance feasible capital projects without inflation or deflation seemed completely oblivious to the need, from an income distribution standpoint, for widespread direct ownership of the means of production.

This historic rift was closed, and Moulton's own omission addressed, when Louis O. Kelso and Mortimer J. Adler published *The Capitalist Manifesto* in 1958.<sup>20</sup> Kelso, a successful corporate lawyer and self-schooled economist, was also an expert in finance who later formed a leading investment banking firm specializing in Employee Stock Ownership Plans (ESOPs) and methods for financing worker ownership.<sup>21</sup> Mortimer Adler, Kelso's co-author of the books that defined the principles underlying the binary economic model, was

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<sup>19</sup> *Ibid.*, 115-116.

<sup>20</sup> Louis O. Kelso and Mortimer J. Adler, *The Capitalist Manifesto*. New York: Random House, 1958.

<sup>21</sup> Kelso is best known today as the inventor of the Employee Stock Ownership Plan, or "ESOP." The ESOP is a high-powered leveraged financing tool that has enabled millions of private-sector workers in the United States and other countries to become co-owners of the companies that employ them. In some cases, workers have even acquired 100% ownership of their companies without putting up any of their own savings, and by leveraging 100% of the buyout.

a well-known Aristotelian philosopher who was the driving force behind the “Great Books” program taught at a number of colleges and universities. Adler, who taught the philosophy of law at the University of Chicago, is considered one of the foremost American Aristotelians of the 20<sup>th</sup> century.

While Kelso had been working on the ideas in the *Manifesto* for years, the collaboration with Adler seems to have sparked something that caught the popular imagination. The book became a best seller. The *Capitalist Manifesto* made the moral and economic case for widespread ownership of the means of production. How to finance widespread ownership was spelled out in the all-important subtitle to *The New Capitalists*: “A Proposal to Free Economic Growth from the Slavery of Savings.”<sup>22</sup>

While some have argued that the term “capitalism” or “capitalist” does not accurately describe the just free market system that Kelso and Adler advocated in their two books, the important point is that in *The Capitalist Manifesto* Kelso and Adler laid out the principles and logic for an advance in moral philosophy (“economic justice”) and a more common sense economic paradigm underlying a system of widespread capital ownership. Subsequently, in *The New Capitalists*, they explained the financial means by which widespread ownership could be achieved without confiscation or redistribution, manipulation of the free market in determining just prices, just wages, and just profits, or in any way harming the existing property rights or interests of current owners of capital.

Not surprisingly, the source that Kelso and Adler referenced most often in *The New Capitalists* is Moulton’s *The Formation of Capital*. By showing how the extension of commercial bank credit can be used to finance capital formation

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<sup>22</sup> Louis O. Kelso and Mortimer J. Adler, *The New Capitalists: A Proposal to Free Economic Growth from the Slavery of Savings*, New York: Random House, 1961.

without requiring existing accumulations of savings, Moulton added the “missing function” in the economic equation and the practical means for applying the principles of economic justice presented in *The Capitalist Manifesto*.

By bridging the two seemingly divergent paths, Kelso developed what eventually came to be called “binary economics.”<sup>23</sup> Binary economics specifies the essential principles and logical framework upon which a realistic, free market-based, and morally grounded plan for economic recovery and sustainable growth can be constructed. This would not only cure poverty in America, but throughout the world.

What Kelso and Adler proposed, consistent with the principles explained in *The Formation of Capital*, was not simply the democratization of income, as Moulton proposed in *Income and Economic Progress*.<sup>24</sup> Instead, they argued that the solution to the income distribution problem is to democratize access to direct, private ownership of new capital formation. Since the Industrial Revolution, this has become increasingly critical, as capital (particularly in the form of advancing technology) has taken over the vast bulk of production from human labor.<sup>25</sup>

As Moulton demonstrated in *The Formation of Capital*, the chief means by which capital formation is financed in a modern industrial and financial economy is commercial bank credit backed by the present value of the future stream of income to be generated by the newly formed capital assets themselves. To this Kelso added that 1) the ownership of the

<sup>23</sup> The “post-scarcity” theory developed by lawyer-economist Louis O. Kelso in the 1950s. “Binary” means “consisting of two parts.” Kelso divided the factors of production into two all-inclusive categories — the human (“labor”), and the non-human (“capital”). The central tenet of binary economics is that there are two components to productive output and to income: (1) that generated by human labor, and (2) that generated by capital. Classical economic theory, on the other hand, regards all output and income to be derived from labor whose productivity is enhanced by capital.

<sup>24</sup> Moulton, *Income and Economic Progress*, *op. cit.*, 155-165.

<sup>25</sup> *Ibid.*, 3-5.

new capital financed with what he called “pure credit” must be broadly owned, and 2) the universal collateralization requirement could be met by using capital credit insurance and reinsurance in place of existing accumulations of savings.

Kelso’s refinements of Moulton’s work underpin a comprehensive national economic program called “Capital Homesteading,” developed by the Center for Economic and Social Justice.<sup>26</sup> The “Capital Homestead Act,” which gives a legislative framework for accomplishing President Ronald Reagan’s call for an “Industrial Homestead Act,”<sup>27</sup> is a way to implement both Moulton’s insights and Kelso’s solution to the income distribution problems of a modern economy. It would empower every American man, woman and child, including the poorest of the poor, with equal opportunity and the social tools to acquire, control and enjoy the fruits of productive corporate assets. Based on a new socio-economic paradigm that some have called the “Just Third Way” (as the moral alternative to traditional capitalism and socialism)<sup>28</sup>, Capital Homesteading also offers a template that can be tailored to eradicate poverty and economic powerlessness in the poorest of nations around the globe.

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<sup>26</sup> Norman G. Kurland, Dawn K. Brohawn, and Michael D. Greaney, *Capital Homesteading for Every Citizen*. Arlington, Virginia: Economic Justice Media, 2004, <http://www.cesj.org/homestead/capitalhomesteading.pdf>. See especially *Appendix 4*, “A New Look at Prices and Money: The Kelsonian Binary Model for Achieving Rapid Growth Without Inflation,” by Norman G. Kurland, reprinted from *The Journal of Socio-Economics*, 2001 (Vol. 30), and available at <http://www.cesj.org/binaryeconomics/price-money.html>.

<sup>27</sup> Ronald Reagan, as early as 1964, recognized and publicly endorsed Louis Kelso’s proposed “Industrial Homestead Act,” which was later renamed the “Capital Homestead Act.” See Ronald Reagan’s speech to the Young Americans for Freedom, July 1974. See also President Reagan’s speech to the Presidential Task Force on Project Economic Justice, August 3, 1987, <http://www.cesj.org/homestead/strategies/regional-global/pej-reagan.html>.

<sup>28</sup> For a quick comparison of capitalism, socialism and “the Just Third Way,” see (<http://www.cesj.org/thirdway/comparison3rdway.htm>). Other writings on the Just Third Way are available on the website of the Center for Economic and Social Justice ([www.cesj.org](http://www.cesj.org)).

The means by which Capital Homesteading proposes to achieve its goals involve major restructuring of America's tax system and Federal Reserve policies. These are designed to lift artificial barriers to more equitable distribution of future corporate capital and stimulate faster growth rates of private sector investment. This proposal is consistent with Moulton's analysis and description of the Federal Reserve as a vehicle to provide an "elastic" currency for sound economic growth and industrial, commercial, and agricultural development.<sup>29</sup> Correcting the problems that Moulton saw in the typical methods of profit sharing,<sup>30</sup> Capital Homesteading would shift primary national income maintenance policies from inflationary artificial wage increases and unproductive income redistribution expedients, to market-based *ownership* sharing and dividend incomes.

Consistent with Moulton's and Kelso's logic, the proposed Capital Homestead Act would reform monetary institutions and tax laws to democratize access to capital (productive) credit. By universalizing citizen access to direct capital ownership by making available "interest-free" productive credit and new, asset-backed money for increasing production, Capital Homesteading would close the power and opportunity gap between today's haves and have-nots, without taking away property from today's owners.

None of this would be possible without Moulton's profound insights into the nature of money and credit. Moulton saw how advanced financial techniques in a properly regulated commercial banking system backed by a soundly structured central bank could be used to foster balanced economic growth, a stable currency, and government monetary and fiscal policy based on production and participation instead of

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<sup>29</sup> Moulton, *Financial Organization and the Economic System*, *op. cit.*, 362-417. See also § 1 of the original Federal Reserve Act of 1913.

<sup>30</sup> Moulton, *Income and Economic Progress*, *op. cit.*, 115-116.

gambling and speculation. As Moulton showed, any program of economic recovery must take this into account, or it will be ineffective:

Production and employment are basic and ultimate points of reference in modern industrial life. Depression, like prosperity, is a phenomenon which is significant primarily in these terms, and no understanding of the factors of recovery may be gained without a thorough consideration of these two elements of economic activity.<sup>31</sup>

Moulton's insights in *The Formation of Capital* suggest a practical and morally sound basis for restructuring the financial system to enable money to be created as needed to finance sustainable economic growth. World poverty *can* be eradicated, something not possible within the current economic paradigms, which rely on existing accumulations of savings to finance capital formation.<sup>32</sup> With the specter of another economic depression looming over today's world, and with the widening gap between "haves" and "have-nots" threatening social harmony, there is no real justification for delaying the implementation of a program of Capital Homesteading to establish and maintain a free, prosperous and just economy for all.

There is no longer a question of the time being ripe to present specifics, as Harold Moulton put it. Once we see a way forward that is rational and right, the time is *always* ripe.

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<sup>31</sup> Harold G. Moulton, *The Recovery Problem in the United States*. Washington, DC: The Brookings Institution, 1936, 114.

<sup>32</sup> See John H. Miller, ed., *Curing World Poverty: The New Role of Property*. St. Louis, Missouri: Social Justice Review, 1994.