HISTORICAL STUDY OF EARLY ENGLISH CLASSICAL MONETARY THEORY

A Dissertation

Presented to

the Faculty of the Department of Economics and Finance

University of Houston

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy in Economics

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by

Beula White Hamm

August 1964

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ABSTRACT OF

HISTORICAL STUDY OF EARLY ENGLISH CLASSICAL MONETARY THEORY

David Ricardo's contributions to monetary theory have overshadowed the ideas of his contemporaries, including Henry Thornton, although Henry Thornton's writings antedated Ricardo's and seem to be the more original and perceptive. It is the purpose of this dissertation to analyze, summarize and evaluate the monetary theory of the early English classicists (1770-1821) with the particular purpose of shedding additional light on the ideas of Henry Thornton in comparison to and in contrast with the ideas of the other writers of the period.

First an effort is made to summarize the thinking of the writers on monetary theory before 1776 to show what the literature offered to those writing from then on. It is pointed out that the quantity theory of money had its beginnings in the sixteenth century, and at the end of the seventeenth century some understanding of the role of velocity (from the viewpoints both of spending and of holding money) had appeared. Early experimentation with paper money and with land banks is reviewed, as well as the ideas of those whose emphasis was on a favorable balance of trade.

The next several sections are devoted nearly entirely to analyses of the monetary theories of Adam Smith, Henry Thornton, David Ricardo and Thomas Malthus. There follows an integration of the early classical theories, and an evaluation of them.

It is concluded that Adam Smith, in his zeal to discredit the mercantilist doctrines, overlooked many of the contributions of the past and presented a somewhat ambiguous monetary theory, which did not prevent his strong advocacy of the real-bills doctrine from overshadowing the contemporary criticism of that doctrine by Adam Dickson and from weathering the assaults upon the doctrine by Thornton and Ricardo.

The suspension of payments in 1797 and the bullion controversy early in the next century stimulated the writings of Henry Thornton and of David Ricardo on monetary affairs. The study indicates that Thornton's contributions to monetary theory were the most enlightened of his time, based on discussions of his treatment of velocity, liquidity, the circulating media, the causes of inflation, wage rigidities, forced savings, internal and external drains, the effect of the quantity of bank notes on production and employment, the functions of the Bank of England, the natural rate of interest and the possible role of the bank rate, the effect of the usury laws, and the significance of the difference between the market and the mint price of gold.

Ricardo's role in the bullion controversy is considered and his contributions to monetary theory are evaluated in comparison with and in contrast to Thornton's. Ricardo's strong feelings against the Bank of England appear to have limited his vision, and his strictly quantity theory--that currency depreciation was the only cause of inflation--was unfortunate in one destined to be so influential. Ricardo adopted certain of Thornton's ideas and ignored others, and both he and Thornton were strongly opposed to the real-bills doctrine; yet it would seem from

the study that the development of monetary theory was deterred by the fact that the insights of Henry Thornton were permitted to be obscured by the less original and less sophisticated doctrines of David Ricardo.

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CHAPTER I

INTRODUCTION

Ever since the time of Aristotle, thoughtful men have spoken and written (with great or little originality or sophistication) about money and its functions; and the wisest words have not always commanded the greatest respect. Present controversies plainly show that complete accord has not yet been reached on the theories of monetary functions and the important policies based upon them.

I. SOME PREVIOUS STUDIES

Present theorists and policy makers depend on historians of economic thought to make available the ideas of past economists to serve as a foundation for the development of more advanced ideas and understanding.

Recently, W. E. Kuhn departed from the traditional approach to history of economic thought and discussed the evolution of money and banking theory separately in two chapters.[1] Although Kuhn saw Henry Thornton as an imaginative pioneer in monetary theory, his treatment of developments during the early classical period covers but nine pages of his very concise and scholarly work.

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[1] W. E. Kuhn, The Evolution of Economic Thought (Cincinnati: South-Western Publishing Company, 1963), pp. 231-82.

Although many historians of economic thought make no mention whatever of Henry Thornton, T. W. Hutchison suggested that Thornton anticipated certain of the ideas of Wicksell on interest and prices;[2] and Lloyd W. Mints regarded Thornton's work as "one of the notable contributions of all time to the literature of money and banking."[3] In his nineteen-page chapter on the Restriction in his History of Banking Theory, Mints devoted a considerable proportion of his coverage of that period to Thornton's ideas.

Joseph Schumpeter recognized Thornton's important achievements and said, in his comprehensive History of Economic Analysis, that Thornton's "amazing performance. . . . anticipated in some points the analytic developments of a century to come."[4] Blaug also made a number of references to Thornton in his work on economic theory, saying at one point that Thornton's was "the greatest single work on monetary theory produced in the classical period."[5]

All these works were broadly based and did not permit a detailed analysis of Thornton's writings.

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[2]T. W. Hutchison, A Review of Economic Doctrines, 1870-1929 (Oxford: Clarendon Press, 1953), p. 236.

[3]Lloyd W. Mints, A History of Banking Theory in Great Britain and the United States (Chicago: University of Chicago Press, 1945), p. 52.

[4]Joseph A. Schumpeter, History of Economic Analysis, edited from manuscript by Elizabeth Boody Schumpeter (New York: Oxford University Press, 1954, p. 689

[5]M. Blaug, Economic Theory in Retrospect (Homewood, Illinois: Richard D. Irwin, Inc., 1962, p. 143.

F. A. v. Hayek, in his sixty-three-page introduction to Henry Thornton's An Enquiry into the Nature and Effects of the Paper Credit of Great Britain, said he considered it surprising that a full length life of Henry Thornton had never been accomplished, and that it was likely that such a complete biography would "contribute a great deal to our understanding of the social and economic views . . . that dominated the nineteenth century."[6]

II. THE PURPOSE OF THIS STUDY

Interesting and instructive as Hayek indicates it would be, it is not the purpose of this work to attempt a complete biography of Henry Thornton; however, the intriguing but brief references in previous studies to the little-known Thornton suggest the merit of a more lengthy report of the monetary theories of the early classicists, with particular reference to Thornton's place among them. In contrast to over-all economic histories, it is the purpose of this study to focus on the contribution to monetary theory of the early classical economists, and particularly to focus on the thinking of Henry Thornton in comparison with and in contrast to the ideas of Adam Smith and David Ricardo.

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[6]Henry Thornton, An Enquiry into the Nature and Effects of the Paper Credit of Great Britain (1802), Together with his Evidence Given Before the Committees of Secrecy of the Two Houses of Parliament in the Bank of England, March and April, 1797, Some Manuscript Notes, and his Speeches on the Bullion Report, May 1811, edited with an introduction by F. A. v. Hayek (New York: Augustus M. Kelley, 1962), pp. 11-12. All references to Henry Thornton's works will refer to the Kelley edition.

III. SCOPE AND LIMITATIONS

The contributions of the early classical economists with regard only to monetary theory are considered here, with the full realization that monetary theory was not the major concern of the classical group, excepting Henry Thornton.

Some contributions of the pre-classical thinkers to the understanding of money and its functions are presented briefly to show the ideas that formed the background of the monetary theory of the early classicists.

Throughout this study, the phrase monetary theory is used to refer to theories of money and its functions, including banking theory.

The original writings of David Ricardo and of Henry Thornton form the basis for the major part of this study. Original writings of Adam Smith were also used, as well as those of other economists wherever possible. In the absence of accessible original writings, photocopies of the originals, or reliable secondary sources, were used.

IV. PREVIEW OF ORGANIZATION

Considered first, in the nature of background and orientation, are examples of the monetary ideas of the predecessors of the early classicists, from Aristotle to Condillac. There follows an analysis of the monetary theories of Smith, Thornton, Ricardo and others. A summary of the early classical theories of money and its functions and an evaluation of the contributions of the early classical group conclude the study.

CHAPTER II

PREDECESSORS OF THE EARLY ENGLISH CLASSICISTS

Very early commentaries on monetary affairs were written from a moral point of view, but by the fourteenth century a secular outlook began to prevail. Beginnings of the quantity theory of money appeared in the sixteenth century, and the next century saw irregular, but at times remarkable, progress in understanding the practical monetary questions, with less attention being given to the functions of money. The role of velocity of circulation began to be explored in the latter part of the seventeenth century, in some cases with remarkable insight. Great interest in monetary affairs developed in the eighteenth century, but advancement was still uneven. Experiments in paper currency, although leading to disaster, taught lessons in banking; and there were analyses of the movement and effect of price changes and of the results of monetary inflation.

1. ARISTOTLE ON THE NATURE AND USE OF MONEY

The inquiring mind of Aristotle, as it focused on the world about him in the fourth century B.C., clearly recognized the functions of money as a medium of exchange and as a standard of value:

> . . . all commodities exchanged must be able to be compared in some way. It is to meet this requirement that men have introduced money; money constitutes in a manner a middle term, for it is a measure of all things, and so of their superior or inferior value, that is to

say, how many shoes are equivalent to a house or to a given quantity of food.[1]

Money, Aristotle felt, had to be useful for non-monetary purposes as well. Indeed, value in exchange derived from value in use.[2]

Also, to Aristotle, "money serves us as a guarantee of exchange in the future."[3] Although there may seem to be a concept here of money as a store of value, Aristotle abhorred the concept of acquisition of money except for purposes of exchange. "The Life of Money-making is a constrained kind of life, and clearly wealth is not the Good we are in search of, for it is only good as being useful, a means to something else."[4] Aristotle recognized two kinds of money-making: one, a part of household management, was necessary and honorable; the other, retail trade, he considered

> . . . a kind of exchange which is justly censured; for it is unnatural, and a mode by which men gain from one another. The most hated sort, and with the greatest reason, is usury, which makes a gain out of money itself, and not from the natural use of it. For money was intended to be used in exchange, but not to increase at interest. And this term usury . . . which means the birth of money from money, is applied to the breeding of money because the offspring resembles the parent. Wherefore of all modes of making money this is the most unnatural.[5]

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[1]Aristotle, The Nicomachean Ethics, with an English translation by Harris Rackham (Cambridge, Massachusetts: Harvard University Press, 1934), V.v.10, p. 283.

[2]W. E. Kuhn, The Evolution of Economic Thought (Cincinnati: South-Western Publishing Company, 1963), p. 8.

[3]Aristotle, op. cit., V.v.14, p. 287. [4]Ibid., I.v.8, p. 17.

[5]Aristotle, The Politics, Book I, included in Arthur Eli Monroe, ed., Early Economic Thought, Selections from Economic Literature Prior to Adam Smith (Cambridge, Massachusetts: Harvard University Press, 1930), p. 20.

II. ST. THOMAS AQUINAS AND USURY

Like Aristotle's, St. Thomas Aquinas' interests ranged widely; and economic activity was but one form of human activity, and subject to moral discipline. Writing his Summa Theologica in the thirteenth century, St. Thomas was guided by the philosophy of Aristotle and by the doctrines of the Catholic Church. The resulting synthesis differed from the Aristotelian teachings in that St. Thomas, regarding this world as merely the preparation for the next, was primarily interested in helping Christians prepare for salvation.[6]

Concerning the use of money, St. Thomas shared Aristotle's abhorrence of usury; and the prohibition of usury was one of the main corollaries of the just-price dogma, itself a moral concept based on the principle that no man should take advantage of another.

> Now money . . . was devised primarily for the purpose of effecting exchanges; and so the proper and principal use of money is the consumption or alienation . . . of it, whereby it is expended in making purchases. Therefore, in itself, it is unlawful to receive a price for the use of money lent, which is called usury; and just as a man is bound to restore other things unjustly acquired, so he is bound to restore money received through usury.[7]

While Aristotle considered the taking of interest on loans an improper use of money, by St. Thomas' time commercial development had forced the recognition that interest was legitimate in situations where

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[6]Kuhn, op. cit., p. 25.

[7]St. Thomas Aquinas, Summa Theologica, included in Arthur Eli Monroe, ed., Early Economic Thought, Selections from Economic Literature Prior to Adam Smith (Cambridge, Massachusetts: Harvard University Press, 1930), p. 67.

the lender could prove he had undertaken risk or had sustained actual loss (for example, through a missed opportunity to invest profitably). Although the simple payment of money for the use of money was not acceptable, the doctrine of usury had been modified.[8]

III. ORESME AND THE MISUSE OF MONEY

In Nicole Oresme's Treatise on the First Invention of Money, written between 1350 and 1360, economic questions were discussed from a secular point of view, rather than within the framework of canonistic theology, in spite of the fact that Oresme was one of the outstanding French churchmen of the fourteenth century.[9]

Unlike Aristotle, Oresme felt that money did not have to be useful in itself; but in his Treatise he set forth certain qualifications money must have: scarcity, uniformity, durability and transportability. Although adhering to a commodity theory of money, Oresme considered money artificial wealth, not fitting human needs directly.[10]

The right to coin money resided in the "prince of a country"[11] and no one, on pain of war or death, should be permitted to counterfeit his stamp. However, it was on behalf of the community that the sovereign had this right; and the money was not owned by the sovereign, but belonged "to the community and its individual members, as Aristotle maintains."[12]

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[8]Kuhn, op. cit., p. 9.

[9]Ibid., p. 251.

[10]Nicole Oresme, Traictie de la Premiere Invention des Monnoies, included in Monroe, ed., Early Economic Thought . . . , pp. 81-4.

[11]Ibid., p. 86.

[12]Ibid., p. 87.

Money, Oresme said, again quoting Aristotle, should be the thing most stable in character.[13] Recognizing several ways in which money could be altered, Oresme deplored them all, as well as other "unnatural" uses of money:

> There are three ways, in my opinion, in which one may make profit from money, aside from its natural use. The first of these is the art of exchange, the custody of or trafficking in money; the second is usury, and the third is the altering of money. The first is base, the second is bad, and the third is even worse. Aristotle mentioned the first two but not the third, for in his time such wickedness had not yet been devised.[14]

IV. BODIN AND THE QUANTITY THEORY OF MONEY

Jean Bodin, who wrote in 1566, about two hundred years after Oresme, is "usually named as the first exponent of the quantity theory of money."[15] A very learned Frenchman, better known for his theory of sovereignty, Bodin's contribution to economics came about when he answered the argument of Malestroit, comptroller of the mint, who contended that the rise in prices was due to the lower intrinsic value of the debased coinage.[16]

It was after the influx of precious metals from the New World that Bodin wrote, and he felt that the principal cause, and "almost the only one,"[17] for the high prices of his times, was the abundance of gold and

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[13] Ibid., p. 89.

[14] Ibid., p. 95.

[15] Kuhn, op. cit., p. 233.

[16] Ibid., p. 251.

[17] Jean Bodin, Reply to the Paradoxes of Malestroit Concerning the Dearness of all Things and the Remedy Therefor, included in Monroe, ed., Early Economic Thought . . . , p. 127.

silver. The second reason arose from monopoly; the third was scarcity, caused partly by export and partly by waste; the fourth was the "pleasure of Kings & great lords, who raise the price of the things they like;"[18] and the fifth was in agreement with Malestroit, and had to do with the price of money, debased from its former standard.

V. POTTER AND BANK LIABILITIES AS MONEY

William Potter, unlike Bodin, did not feel that an increase in the quantity of money would necessarily raise prices, but rather that it would increase the quantity of trade. Since increase in trade would be desirable, Potter suggested in 1650, in The Key of Wealth, an increase in the quantity of money through the means of a cooperative credit company that would lend to its members and issue six-months bills to circulate as money. He suggested no need for limiting the amount of bills. Mints says that Potter's work, though tedious and obscure, is the first suggestion he has found in English to the effect that the liabilities of a banking company might circulate as money.[19]

VI. MADDISON AND CREATION OF MONEY BY BANKS

Writing in 1655, about five years after Potter (but basing his work on his own pamphlet written in 1640), Sir Ralphe Maddison wrote a

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[18] Ibid.

[19] Lloyd W. Mints, A History of Banking Theory in Great Britain and the United States (Chicago: University of Chicago Press, 1945), p. 13.

clearer description than Potter's of the work of bankers. Loans are made, he said, "by assignation, without laying out of the bank any money,"[20] clearly implying that bank liabilities, created by loans, serve the purpose of money.

VII. PETTY AND THE VELOCITY OF CIRCULATION

Sir William Petty, writing in the last part of the seventeenth century, would have agreed with Maddison that banks could create money; however, Charles Henry Hull of Cornell, who edited in 1899 a collection of Petty's economic writings, considered it doubtful that Petty had any acquaintance with such economic writings as existed in his day.[21] Practitioner of medicine, inventor of sorts, and thinker in advance of his time, Petty preferred expressing himself in terms of "number, weight, or measure" rather than using only "comparative and superlative Words and Intellectual Arguments,"[22] and his works were inspired by the problems of the day rather than by the writings of others.

Petty felt that "If by reason of new and more easie Mines" two ounces of silver were as easily obtainable as one ounce had been formerly

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[20] Sir Ralphe Maddison, Great Britains Remembrancer, Looking In and Out (1655), pp. 19-20, quoted by Mints, op. cit., pp. 13-14. Mints continued in his footnote on page 14: "This work is an expansion of an earlier pamphlet by Maddison, Englands Looking In and Out (1640). This latter work I have not seen. It is quite likely that Maddison should be given precedence over Potter."

[21] Charles Henry Hull, ed., The Economic Writings of Sir William Petty (Cambridge: Cambridge University Press, 1899), p. lx.

[22] Ibid., p. 244.

"then Corn will be as cheap at ten shillings the bushel, as it was before at five shillings caeteris paribus."[23] However, Petty recognized that the velocity of money was an important aspect of the effectiveness of a particular quantity of money:

> . . . the Expence being 40 Millions, if the revolutions were in such short Circles, viz. weekly, as happens among poorer artizans and labourers, who receive and pay every Saturday, then 40/52 parts of 1 Million of money would answer those ends: But if the Circles be quarterly, according to our Custom of paying rent, and gathering Taxes, then 10 Millions were requisite.[24]

It was important to Petty that there be present in the economy the correct amount of money, which, with a given velocity, was sufficient to supply the needs of trade. "For Money is but the Fat of the Body-politick, whereof too much doth as often hinder its Agility, as too little makes it sick."[25]

Petty did not confuse money with wealth, saying "it is very ill-husbandry to double the Cash of the Nation, by destroying half its wealth; Or to increase the Cash otherwise than by increasing the Wealth."[26]

Question twenty-five of the Quantulumcunque Concerning Money[27] (written in 1682 but probably not published until 1695) asked whether there were any way to know how much money was sufficient for a nation, and the answer was based on quantity as well as velocity:

> I think it may pretty well be guessed at; viz. I think that so much Money as will pay half a Years Rent for all the Lands of England, and a Quarters Rent of the Houseing, and a Weeks Expense of all the People, and about a Quarter of the Value of all the exported

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[23] Ibid., p. 112. [24] Ibid. [25] Ibid., p. 113.

[26] Ibid., p. 192. [27] Ibid., p. 438.

> Commodities, is sufficient for that purpose. Now when the States will cause these things to be computed, and the Quantity of their Coins to be known, which the new Coining of their old Money will best do, then it may also be known whether we have too much or too little Money.[28]

Although recognizing velocity as limiting the necessary quantity of money, there seems to have been no recognition that changes in velocity might come about to compensate for changes in quantity.

Neither did Petty see the influence of circulation on prices, holding that prices depend on the respective costs of production of money and goods, and that circulation, an entirely independent factor, determines the volume of transactions at these prices.[29]

The following answer appears in the Quantulumcunque to a question as to the remedy for too little money:

> We must erect a Bank, which well computed, doth almost double the Effect of our coined Money: And we have in England Materials for a Bank which shall furnish Stock enough to drive the Trade of the whole Commercial World.[30]

To the question, "What if we have too much Coine?"[31] the answer was:

> We may melt down the heaviest, and turn it into the Splendor of Plate, in Vessels or Utensils of Gold and Silver; or send it out, as a Commodity, where the same is wanting or desired; or let it out at Intrest, where intrest is high.[32]

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[28] Ibid., p. 446.

[29] Arthur Eli Monroe, Monetary Theory Before Adam Smith (Cambridge, Massachusetts: Harvard University Press, 1923), p. 137.

[30] Hull, loc. cit. [31] Ibid. [32] Ibid.

Interest for Petty, in answer to another question, was: "A Reward for forbearing the use of your own Money for a Term of Time agreed upon, whatsoever need your self may have of it in the mean while."[33] Regarding the taking of interest, Petty said:

> Wherefore when a man giveth out his money upon condition that he may not demand it back until a certain time to come, whatsoever his own necessities shall be in the mean time, he certainly may take a compensation for this inconvenience which he admits against himself.[34]

Showing more sophistication than Oresme, Petty pointed out the evils of currency debasement:

> Sometimes it hath hapned, that States (I know not by what raw advice) have raised or embased their money, hoping thereby, as it were, to multiply it, and make it pass for more then it did before; that is, to purchase more commodity or labour with it: All which indeed and in truth, amounts to no more then a Tax, upon such People unto whom the State is indebted, or a defalkation of what is due; as also the burthen upon all that live upon Pensions, established Rents, Annuities, Fees, Gratuities, &c.[35]

In addition to his recognition of the effects of currency debasement on creditors and people with fixed incomes, Petty expressed this opinion of a country adopting such a policy:

> . . . raising or embasing of Moneys is a very pittiful and unequal way of taxing the people; and 'tis a sign that the State sinketh, which catcheth hold on such weeds as are accompanied with the dishonour of impressing a Princes Effigies to justifie Adulterate Commodities, and the breach of Publick Faith, such as is the calling a thing what it really is not.[36]

Petty recognized the possible effects of the quantity and velocity of money on employment and production. If there were not sufficient

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[33] Ibid.

[34] Ibid., p. 47.

[35] Ibid., p. 84.

[36] Ibid., pp. 90-1.

money to "drive the Nations Trade," he said,[37] the effect would be less work for the people because as a hundred pounds passes through one hundred hands in wages it causes ten thousand pounds worth of "Commodities to be produced, which hands would have been idle and useless, had there not been this continual motive to their employment."[38]

Arthur Eli Monroe regarded Sir William Petty very highly, referring to him as "in many respects the ablest economist before Cantillon."[39] It is interesting also to note that Karl Marx spoke of Petty as "the father of political economy, and to some extent the founder of Statistics."[40]

VIII. LOCKE AND THE INFLUENCE OF HOARDING AND THE VOLUME OF TRADE ON MONEY

At about the same time that Petty's Quantulumcunque Concerning Money was published, John Locke presented similar ideas in two essays,[41] recognizing velocity and stating that prices vary with the quantity of money; and emphasizing the important role of the volume of trade. He

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[37] Ibid., p. 36. [38] Ibid.

[39] Monroe, Monetary Theory . . ., p. 80.

[40] Karl Marx, Capital (New York: The Modern Library, Random House, Inc., 1906), p. 299.

[41] John Locke, Consequences of the Lowering of Interest, and Raising the Value of Money (1691); and Further Considerations Concerning Raising the Value of Money (1696); published together with J. R. McCulloch's Principles of Political Economy (London: Murray, 1870), pp. 220-360; cited by Douglas Vickers, Studies in the Theory of Money 1690-1776 (New York: Chilton Company, 1959), p. 43.

also presented the idea that hoarded money, having no velocity, was not part of the effective quantity of money that influenced prices.[42]

Locke wrote in nearly every field of philosophy, stressing the need for toleration of contrary opinions. He is credited with being perhaps the first of the English economists who described at the same time all essential elements of the quantity theory of money.[43]

Locke's essays were written to express his opposition to the ideas put forth by Josiah Child, Sir Thomas Culpeper and Nicholas Barbon, who advocated lowering the legal maximum interest rate. Locke felt that a low interest "where all men consent to it, is an advantage to trade,"[44] but he was against an artificially low rate of interest, fearing that illegal loans would be made at rates not only higher than the legal maximum, but even higher than rates would have been without control, because of the risk of detection.

For Locke, interest was "the price of the hire of money"[45] and was an effect rather than a cause. Given demand (the state of debts and trade), interest depended on the supply of money. The effective market price of interest, determined by supply and demand, would be "the true and natural value."[46]

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[42]Kuhn, op. cit., p. 234.

[43]Vickers, op. cit., p. 44; Monroe, Monetary Theory . . . , p. 111.

[44]Locke, Consequences of the Lowering of Interest, and Raising the Value of Money, p. 266.

[45]Locke, Consequences . . . , p. 221. [46]Ibid.

There are two ways to raise the natural interest, Locke said. First, "when the money of a country is but little, in proportion to the debts of the inhabitants" and second, "when money is little, in proportion to the trade of a country."[47]

Although opposed to regulation of interest rates by law, Locke felt that some guide was necessary to keep interest rates

> . . . within such bounds, as should not, on the one side, quite eat up the merchant's and tradesmen's profit, and discourage their industry; nor, on the other hand, so low, as should hinder men from risquing their money in other men's hands, and so rather chuse to keep it out of trade, than venture it upon so small profit. When it is too high, it so hinders the merchant's gain that he will not borrow; when too low, it so hinders the monied man's profit that he will not lend; and both these ways it is an hindrance to trade.[48]

Locke felt that the only effective way to maintain and increase the country's money supply was by means of a favorable balance of trade; that the wheels of trade were driven by money in circulation; and that a certain proportion of money was necessary for driving a particular portion of trade.[49]

> This shews the necessity of some proportion of money to trade: but what proportion that is, is hard to determine; because it depends not barely on the quantity of money, but the quickness of its circulation.[50]

Locke did not suggest a quantitative estimate of the amount of money required, but recognized that the "quickness of its circulation" was related to "how much money it is necessary to suppose must rest

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[47] Ibid., p. 224.

[48] Ibid., p. 263.

[49] Vickers, op. cit., pp. 55, 57.

[50] Locke, Consequences . . . , p. 234.

constantly in each man's hand, as requisite to the carrying on of trade."[51] Looking at circulation from the viewpoint of income flows, he indicated that laborers, living hand to mouth, did not need very much money "lying still in their hands."[52] Because tenants accumulate money to pay quarterly rent, "between the landlord and the tenant, there must necessarily be at least a quarter of the yearly revenue of the land, constantly in their hands."[53] Clearly, then, Locke saw the relationship between rapidity of circulation and the necessity for people to hold money in relation to transactions. Locke's analysis was along the same lines as Petty's, except that Petty had looked at velocity from the point of view of spending rather than holding money. Like Petty, Locke did not see the effect of velocity on price.[54]

Concerning the value of money, Locke interestingly suggests that its value comes from the consent of men. After imputing value to labor, he says: "But since gold and silver . . . has its value only from the consent of men--whereof labour yet makes in great part the measure."[55] Locke's three propositions in the theory of the value of money are summarized as follows:

> . . . firstly, it is the intrinsic value of silver money which makes it the instrument of commerce, the medium of exchange; secondly, that intrinsic value has a significance as an exchange medium precisely

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[51] Ibid., p. 234.

[52] Vickers, op. cit., p. 59.

[53] Locke, Consequences . . . , p. 236.

[54] Monroe, Monetary Theory . . . , p. 144.

[55] Locke, Of Civil Government, cited by Vickers, op. cit., p. 65.

> because of the "common consent . . . whereby it is made equivalent to all other things"; that is, precisely because it has been universally agreed to be acceptable as money and as a discharge of indebtedness; and thirdly, the quantity of money involved in any particular exchange transaction is the measure of the values involved.[56]

IX. BARBON AND ARGUMENTS AGAINST LOCKE

In 1690, a year before the publication of Locke's Consequences of the Lowering of Interest, and Raising the Value of Money, Nicholas Barbon presented A Discourse of Trade.[57] Vickers considered Barbon's Discourse to be, in many ways, "a prologue to the macro-economics of the eighteenth century."[58]

Barbon felt that error had been committed in attempts to analyze trade in parts, and he himself was concerned with "how it may be most profitable to the nation."[59] This objective involved Barbon's looking behind the level of trade activity, and the nature and composition of the trade volume, to the amount of employment created.[60]

Vickers saw Barbon's contributions relating principally to three issues:

> . . . firstly, to the basic desideratum of a high level of employment as an indication of healthy economic conditions; secondly, to the necessary implication of a high level of money spending; and

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[56]Vickers, op. cit., p. 66, quoting Locke, Further Considerations . . . , p. 313.

[57]Nicholas Barbon, A Discourse of Trade (London: 1690, ed. Hollander, 1905) cited by Vickers, op. cit., pp. 74, et seq.

[58]Vickers, op. cit., p. 74.

[59]Barbon, op. cit., p. 6.

[60]Vickers, op. cit., p. 75.

thirdly, to the description of money in a way which avoided the confusion between its value as money and the intrinsic value of the material of which it might be made.[61]

Concerning the last of these issues, Barbon said:

> It is not absolutely necessary money should be made of gold or silver; for having its sole value from the law, it is not material upon what metal the stamp be set. Money hath the same value, and performs the same uses, if it be made of brass, copper, tin or anything else.[62]

For Barbon, it was money and not silver which was the instrument and measure of commerce.[63] This position differs from that of John Locke, for whom intrinsic value was an important part of the value of money.

Nicholas Barbon's theory of interest was not a purely monetary theory in the sense that Locke's was; and Nicholas Barbon was one of the persons whose advocacy of a lower legal maximum interest rate was challenged in Locke's essays. Barbon suggested that interest was a payment for the services of the investment goods created by the loan:

> Interest is the rent of stock, and is the same as the rent of land: The first, is the rent of wrought or artificial stock; the latter, of the unwrought or natural stock. Interest is commonly reckoned for money; because the money borrowed at interest is to be repayed in money; but this is a mistake; for the interest is paid for stock: for the money borrowed, is laid out to buy goods, or pay for them before bought; No man takes up money at interest, to lay it by him, and lose the interest of it.[64]

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[61] Vickers, op. cit., p. 75.

[62] Barbon, op. cit., pp. 16-7.

[63] Nicholas Barbon, A Discourse Concerning Coining the New Money Lighter (London: 1696), p. 12, cited by Vickers, op. cit., p. 88.

[64] Barbon, A Discourse of Trade, p. 20, quoted by Vickers, op. cit. p. 91.

In arguing for a reduction in the legal rate of interest, Barbon claimed that it would not make money scarce.[65]

It was about five years after the publication of Barbon's A Discourse of Trade that his interest turned to the establishment of a land bank.

X. BARBON, ASGILL, CHAMBERLEN, BRISCOE AND THE LAND BANKS

As one of several land bank schemes in the 1690's, Nicholas Barbon, in a venture with John Asgill, established a land bank in 1695 with the purpose of collecting savings from which to make advances on mortgages.[66] The margin of profit was to come from borrowing at two per cent and lending at three-and-one-half per cent, and from maintaining only a proportionate reserve, which would permit advances up to three million pounds on the strength of its proposed subscription of one hundred thousand pounds. Advances were limited to three-quarters of the value of the land mortgaged.[67]

John Briscoe, who formed the National Land Bank about the same time, joined with Asgill and Barbon in attempting to establish a Government-sponsored land bank, but failed because of unfavorable public

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[65]Barbon, A Discourse of Trade, p. 41, cited by Vickers, op. cit., p. 92.

[66]J. Keith Horsefield, British Monetary Experiments 1650-1710 (Cambridge, Massachusetts: Harvard University Press, 1960), p. 197.

[67]Ibid., pp. 198-9.

opinion. Briscoe and the others felt that the Bank of England might issue too many inadequately secured notes; and answering the objection that a national land bank might also issue too many notes, Briscoe said:

> These bills being a new species of money, and to all intents and purposes answering the end of money; we may as well fear that we shall have too much money in the nation, which no wise man will complain of.[68]

The failure of the Government land bank to materialize broke up the relationship of Briscoe's bank with the Asgill-Barbon bank, but the two banks survived. Barbon died in 1698 and by January 1699 the Asgill-Barbon land bank was discontinued.

Briscoe's bank was quite different from the Asgill-Barbon bank. Where the latter proposed to lend on mortgages, Briscoe planned to capitalize future rents.[69] The original idea of a land bank apparently came to Briscoe from Hugh Chamberlen[70] whose preliminary steps toward a land bank are described in a manuscript dated November 1689.[71]

XI. NORTH AND THE FLOW OF MONEY

Like Barbon, Sir Dudley North, whose Discourses upon Trade was published in 1691,[72] was concerned with an aggregate analysis. Also

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[68]John Briscoe, A Discourse on the Late Funds (third edition, 1696), pp. 60, 63-4, cited by Mints, op. cit., p. 15.

[69]Horsefield, op. cit., p. 197.

[70]Ibid., p. 160. [71]Ibid., p. 157.

[72]Dudley North, Discourses upon Trade (London: 1691, ed. Hollander, 1907) cited by Vickers, op. cit., pp. 94, et seq.

like Barbon, North's economic writings were included in examinations of the principles of trade.

Concerning the money supply, he described the "ebbing and flowing of money," saying: "When money is scarce, bullion is coin'd; when bullion is scarce, money is melted."[73] Poverty, which would occur if both were scarce at the same time, he said, he left out of the system.

Carrying forward Barbon's theory of interest as the rent of stock, North related the supply side of the loan market directly to a surplus of savings remaining after a part of income was spent on consumption.[74] He did not support legal regulation of the rate of interest, saying: "Thus when all things are considered, it will be found best for the nation to leave the borrowers and the lender to make their own bargains, according to the circumstances they lie under."[75]

Like Locke, North argued that the supply of funds available for lending depended on the level of interest rates;[76] but more important to North was the dependence of the supply of loan money on the level of trade and incomes. It is not so much, North said, that "low interest makes trade" as that "trade makes interest low."[77]

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[73]North, op. cit., p. 36, cited by Vickers, op. cit., p. 96.

[74]Vickers, op. cit., p. 96.

[75]North, op. cit., p. 20, cited by Vickers, op. cit., p. 97.

[76]North, op. cit., p. 19, cited by Vickers, op. cit., p. 97.

[77]North, op. cit., p. 18, cited by Vickers, op. cit., p. 98.

North concentrated on the functional significance of money rather than its form, and he felt the remedy to scarcity of money was production and trade. "Industry . . . brings . . . wealth."[78] Foreign trade was essential to the maintenance of wealth. It was the spending of money, rather than the possession of money, that was important.

North had this to say concerning the circulation of money:

> We are apt to make over-estimates of the quantities of current money, for we see it often and know it not again; and are not willing to consider how very a little time it stays in a place . . . from all the money that lies dead, no benefit is expected, but it is a certain loss.[79]

A further reason North gave for believing that there was less money in the economy than people thought, was that banks had on hand only a fraction of the money in their accounts.[80]

XII. HARLEY'S DENIAL THAT BANKS INCREASE THE QUANTITY OF MONEY

Although Richard Harley, in 1710, denied that "banks and paper-credit" have any influence on either the volume of trade or the amount of money employed in trade, he did concede that it was prudent for banks to lend "upon the most valid securities, and with a certain prospect that they can command it at a short warning."[81]

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[78] North, op. cit., p. 37, cited by Vickers, op. cit., p. 103.

[79] North, op. cit., p. 32, cited by Vickers, op. cit., p. 107.

[80] North, op. cit., pp. 32-3, cited by Vickers, op. cit., p. 108.

[81] Hints, op. cit., p. 15.

Harley knew that banks issued more bills than they had cash, but felt they must have the money on hand or available at short notice. His denial that banks increase the money supply amounted to a denial that bank notes are money, but it can be inferred from his writing that they do the work of money.[82]

XIII. LAW AND THE RELATION OF BANK CREDIT TO BANK CASH

Remembered and reviled as the perpetrator of the ill fated Mississippi Scheme, Law's insight into monetary affairs is often overlooked.

Leaving England after having killed a man in a duel, John Law travelled three years on the Continent, bringing a background of mathematics and gambling to the study of the monetary and banking affairs of the countries he visited. Apparently around 1700 he returned to Edinburgh, where he had been born in 1671. It was there, in 1700, that he published Proposals and Reasons for Constituting a Council of Trade, a pamphlet which went pretty well unnoticed.[83]

In 1705, in his Money and Trade Considered; with a Proposal for Supplying the Nation with Money, Law presented his reasons why paper money is preferable to metallic money: relatively high cost of coinage;

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[82] Ibid.

[83] Charles Mackay, Memoirs of Extraordinary Popular Delusions and the Madness of Crowds (New York: L. C. Page & Company, 1932), p. 4. This work had been first published in London in 1841 and again in 1852.

the fact that coins could be melted down; costly transportation and storage of coins; the fact that metallic money is subject to fluctuations in the supply and demand for the commodities of which it is made. Paper money backed by real estate would be much more stable, Law felt, since real estate would tend to rise in value roughly in proportion to the rise in value of goods in general.[84]

It was also in his Money and Trade Considered . . . that Law said money is the "value in which contracts are made payable,"[85] which apparently was the first specific reference to money as a standard of deferred payments.

Assuming loans to be made for production rather than consumption, Law felt that prosperity would be assured by increasing the quantity of money in circulation because that would depress interest rates and tend to expand output.[86]

At that early stage, Monroe points out, men worked mainly for themselves and tried to make their own lands supply all their needs, therefore land was often not used to the best advantage; but as the use of money spread, "more land was cultivated and its product was increased, the poor and idle were employed, trade and manufactures improved, and all lived in greater comfort and industry."[87] Law had seen a clear connection

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[84]Kuhn, op. cit., pp. 234-5.

[85]Monroe, Monetary Theory . . . , p. 162, quoting John Law.

[86]Kuhn, op. cit., p. 239.

[87]Monroe, Monetary Theory . . . , pp. 163-4.

between money and the division of labor; but then he confused money with capital, concluding that every addition to the money of a nation will employ more people in proportion to the increase, and even though the employer loses will add to the wealth of the nation.[88]

The Scottish Parliament turned down an idea of Law's recommending a land bank, the notes of which were to be based on the value of the lands of the state. This failure, and the failure of Law's attempt to obtain a pardon for his crime, caused him to return to the Continent, where he roamed from country to country, supporting himself by his successful gambling, and studying the finances of the countries he visited. He became convinced that paper currency was important to the prosperity of a country.

Law failed to interest France and then Italy in certain financial schemes; but when his admirer, the Duke of Orleans, became Regent of France at a time when the financial affairs of France were in great disorder, Law had his opportunity. In 1715 Law was authorized to establish a bank under the name of Law and Company, the notes of which were to be received in payment of taxes. The management of his bank was backed by his thirty years' study of finance. All his notes were payable at sight and in the coin current at the time they were issued, making his notes more valuable than coins. Law publicly declared that if a banker made issues without having sufficient security to answer all demands, he deserved to die.[89]

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[88] Ibid., p. 164.

[89] Mackay, op. cit., p. 11.

The bank Law established was phenomenally successful and the Duke of Orleans concluded that paper money should entirely supersede coin. It was at this time of high favor that Law requested and was granted permission to establish a company to have the exclusive privilege of trading along the Mississippi River and in the province of Louisiana, an area supposedly rich in precious metals. The company, supported by gains from this exclusive commerce, had the right to collect taxes and to coin money. The company was incorporated in 1717.

There seems to be no reason to believe that Law had other than honest purposes; indeed, his bank had been highly successful through competent management. However, in the wake of Law's successful banking operations, France was caught up in a speculative fever. It was felt that Law could do no wrong and his bank was granted monopolies (on the sale of tobacco and refining gold and silver) and finally became the Royal Bank of France. All this success was too much for John Law, and he forgot his own precept about the importance of adequate backing for paper money. To his credit, it was only after the bank became a public institution that sound principles were abandoned. Unquestionably, though, Law was dazzled and weakened in his resolves by his success and by the attitude of the Regent. Mackay's fascinating book relates vividly the story of the wild speculative excesses and their tragic aftermath. Those who had idolized Law and resorted to subterfuges of the strangest kinds to secure shares in his company, were, when the bubble burst, ready to tear Law to pieces. The vacillating Regent threw all blame on Law publicly and then privately apologized to him. When Law finally had to leave the

country for his and his family's safety, the Regent offered any sum of money he might require, but Law declined.

> . . . he had refused to enrich himself at the expense of a ruined nation. During the height of the popular frenzy for Mississippi stock, he had never doubted of the final success of his projects in making France the richest and most powerful nation of Europe. He invested all his gains in the purchase of landed property in France--a sure proof of his own belief in the stability of his schemes. He had hoarded no plate or jewellery, and sent no money, like the dishonest jobbers, to foreign countries. His all, with the exception of one diamond, worth about five or six thousand pounds sterling, was invested in the French soil; and when he left that country he left it almost a beggar. This fact alone ought to rescue his memory from the charge of knavery, so often and so unjustly brought against him.[90]

Historians have come to believe that the Mississippi Scheme was closely connected with the South Sea Bubble in England, according to Penfield Roberts.[91]

Law's experience proved a point that "no government can force a nation to accept as money something which the people believe to be worthless."[92] On the other hand, the early activities of Law and Company represented a successful, sound system of banking; and, "If Law had confined himself to what he accomplished in these first two years, he would have been one of the greatest benefactors any nation ever had."[93]

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[90] Ibid., p. 42.

[91] Penfield Roberts, The Quest for Security 1715-1740 (New York: Harper and Brothers, 1947), p. 89.

[92] Kuhn, op. cit., p. 235.

[93] Ibid., p. 252.

XIV. BERKELEY'S FUNCTIONAL APPROACH

George Berkeley's work in the fourth decade of the eighteenth century depended heavily on Law's. Although free from Law's confusion of money with capital, the value of Berkeley's monetary analysis was not fully recognized until the Keynesian revolution; but in 1938 Johnston concluded that Berkeley "in his analysis of the nature of money itself, and of the function of gold in relation to it," ranks high as "one of the most modern and 'advanced' of monetary thinkers."[94]

Both Law and Berkeley wanted to increase the quantity of money in circulation; both considered the best means of accomplishing that was by the issuance of bank money; both preferred paper over metal; both felt a favorable balance of trade was not the best way of increasing the money supply. International economic relations were, however, important for Law and not for Berkeley. It was a closed, domestic economy with which Berkeley was concerned.[95]

Recognizing unemployment as the real economic problem, Berkeley's primary view of money was functional. "Whether money be not only so far useful as it stirreth up industry, enabling men mutually to participate the fruits of each others labour?"[96] And further:

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[94]Vickers, op. cit., pp. 141, et seq., citing J. Johnston, Economic History (1938) on "The Monetary Theories of Berkeley," pp. 21-24.

[95]Vickers, op. cit., pp. 145-6.

[96]Vickers, op. cit., p. 149, quoting George Berkeley's Querist, published in the 1730's in three parts, citations by Vickers from Johns Hopkins University reprint, edited by J. H. Hollander.

> Whether therefore less money swiftly circulating be not, in effect, equivalent to more money slowly circulating? or whether if the circulation be reciprocally as the quantity of coin the nation can be a loser?
>
> . . . . . .
>
> Whether an inward trade would not cause industry to flourish, and multiply the circulation of our coin, and whether this may not do as well as multiplying the coin itself?[97]

The function of monetary circulation, and the objectives of theoretical explanation, lay in "its ability to 'promote,' 'transfer,' and 'secure' a satisfactory level of 'commerce of industry.'"[98]

In connection with monetary institutions, Berkeley asked "whether the abuse of banks and paper money is a just objection against the use thereof? And whether such abuse might not easily be prevented?"[99] Berkeley felt that a proper amount of issue could be maintained by reference to the constancy of the level of commodity prices and of the valuation of asset securities. He also believed that notes could be safely issued against other security in addition to land.

Berkeley did not develop a systematic theory of interest; however, this was his argument against those who objected to his plan for a National Bank: "If it be objected that a National Bank must lower interest, and therefore hurt the monied man, whether the same objection would not hold as strong against multiplying our gold and silver?"[100]

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[97] Vickers, op. cit., pp. 150-1, quoting Berkeley, op. cit.

[98] Ibid., p. 152

[99] Ibid., p. 165

[100] Ibid., p. 169.

His emphasis on the importance of consumption as a factor in the production of wealth, and his understanding of the vital part played by the quantity of money in the economy, according to Johnston, places Berkeley in the position of precursor of Keynes.[101]

XV. CANTILLON AND PROFIT INFLATION

Richard Cantillon was a wealthy British merchant of Irish descent, with houses in most of the leading centers of Europe. A highly developed presentation of many of the contributions of the earlier literature, as well as remarkable original analysis, is to be found in his Essai sur la Nature du Commerce en Général, "the most important work on economics before the Wealth of Nations."[102] Essai . . . was written between 1730 and 1734 (the year of Cantillon's death), but was not published until 1755, in Paris. Apparently the English manuscript had wide circulation before the French translation was published. The physiocrats, in particular, were considerably influenced by Cantillon.[103]

Cantillon made a firsthand study of the financial systems of Europe and had a close association with Law's monetary and banking policies. In fact, he successfully anticipated the result of Law's operations.[104] His work, however, was concerned with theoretical analysis; and his approach was micro-economic rather than macro-economic.

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[101] Vickers, op. cit., p. 141, quoting Johnston, op. cit.

[102] Monroe, Early Economic Thought, p. 246.

[103] Ibid.

[104] Vickers, op. cit., p. 18[illegible].

Showing a dynamic conception, Cantillon said:

> Mr. Locke . . . realized well that the abundance of money makes everything dear, but he did not analyze how that takes place. The great difficulty of this analysis consists in discovering by what path & in what proportion the increase of money raises the price of things.[105]

. . . . . .

> I conclude that an increase of money in a State always leads to an increase of consumption there & the habit of making greater expenditures. But the dearness caused by this money does not affect all kinds of commodities & merchandise equally, in proportion to the quantity of this money; unless what is introduced is continued in the same channels of circulation as the original money; that is, unless those who offered one ounce of silver in the Markets are the same & the only ones who now offer two ounces there, since the doubling of the weight of the money in circulation, which never happens. I take it that when a substantial addition is made to the money of a State, the new money gives a new turn to consumption, & even a rapidity to circulation; but it is not possible to determine the exact degree.[106]

In considering the velocity of circulation, Cantillon pointed out that the quantity of money required for a particular number of transactions varies in inverse proportion to the speed with which it is spent.[107]

Among the things which, for Cantillon, determined the amount of money necessary in circulation were included the minimum amount of cash a person insisted on holding at any time, confidence in the banks, and the extent of barter.[108]

For Cantillon, a metallist, the level of demand depended on the supply of money, through induced profits and incomes. He did not

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[105] Monroe, Early Economic Thought, pp. 263-4.

[106] Ibid., p. 272.

[107] Kuhn, op. cit., p. 236.

[108] Ibid.

consider, as did those who advocated controlled paper money, that money should be brought into existence to create demand.[109]

In tracing profit inflation, or the inflationary effects of an increase in the money supply, Cantillon showed great perception. Increases in production of precious metals, consequent change in the distribution of income, and shifts in foreign trade flows resulting from the new price-supply-demand structure were the basis for profit inflation. Looking at the results of monetary inflation, Cantillon said:

> I hold that in general an increase in the monetary stock causes in a State a proportional increase in consumption, which by degrees produces the rise of prices.
>
> If the increase in the money supply comes from Mines of gold or silver in a State, the Proprietor of these Mines, the Entrepreneurs, the Smelters, the Refiners, & in general all those working in them will not fail to increase their expenditures in proportion to their gains. . . . Consequently they will give employment to several Artisans who did not have so much work formerly, & who for the same reason will increase their expenditures also. . . . The altercations of the Market, or the demand . . . being stronger than usual, will not fail to raise their price. These high prices will induce the Farmers to employ more land to produce these things another year; these same Farmers will profit from this increase of price, & will increase the expenditures of their families like the others. Those, therefore, who will suffer from this dearness, & from the increased consumption, will be at first the Proprietors of lands, during the term of their Leases, then their servants, & all workmen or people working for fixed wages who support their families thereby. All these will have to diminish their expenditures in proportion to the new consumption; which will oblige a great many of them to leave the State to seek their fortunes elsewhere. The Proprietors will dismiss many of them, & the others will eventually demand an increase in wages in order to be able to live according to their customary standard. This, roughly, is how a considerable increase of money from Mines increases consumption; & while diminishing the number of inhabitants, brings about a greater expenditure among those who remain.

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[109] Vickers, op. cit., pp. 205-6.

If more money is taken from the Mines, the prices of all things will be increased by this abundance of money to such an extent, that not only will the Proprietors of lands increase their Rents considerably at the expiration of their Leases, & resume their former standard of living, increasing proportionately the wages of those who serve them; but the Artisans & Workmen will ask such high prices for their products that it will be quite profitable to bring them from Abroad, where they are made much cheaper. This will naturally induce several people to import quantities of Manufactured goods made in foreign Countries, where they may be had cheaply: which will imperceptibly ruin the Artisans & Manufacturers of the State who could not live on such low wages, in view of the high prices.

. . . the money produced by the Mines will necessarily be transferred to Foreigners to pay for what we import from them: which will imperceptibly impoverish this State & render it in some ways dependent upon foreign countries to which money has to be sent every year, as it is drawn from the Mines. The great circulation of money, which at first was general, ceases; poverty & misery follow, & the working of the Mines appears to be only for the advantage of those employed in them, & for the Foreigners who profit from it.[110]

XVI. HUME ON THE RELATIONSHIP OF THE EXPANSION OF MONEY TO ECONOMIC WELFARE

David Hume's economic writings are a relatively small proportion of his work, and his ideas relating to money are contained in three essays in Political Discourses: "Of Money," "Of Interest," and "Of the Balance of Trade." Political Discourses appeared in 1752, after Cantillon's Essai . . . was written, but before it was published; and Hume may or may not have been familiar with Cantillon's work.[111]

To Hume it was evident that "the greater or less plenty of money is of no consequence; since the prices of commodities are always

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[110] Monroe, Early Economic Thought, pp. 264-6.

[111] Kuhn, op. cit., p. 237.

proportioned to the plenty of money."[112] An abundance of money may be a loss to a nation, however, when manufacturers move to other areas, lured by low prices. Hume, therefore, was against banks and paper money,[113] feeling that price increases resulting from increases in trade and in hard money were an unavoidable inconvenience; but "there appears no reason for encreasing that inconvenience by a counterfeit money, which foreigners will not accept of in any payment, and which any great disorder in the state will reduce to nothing."[114] He continued that, because of the disadvantages to a trading nation of artificially increased credit:

> . . . no bank could be more advantageous, than such a one as locked up all the money it received, and never augmented the circulation coin, as is usual, by returning part of its treasure into commerce. A public bank, by this expedient, might cut off much of the dealings of private bankers and money-jobbers; and though the state bore the charge of salaries to the directors and tellers of this bank (for, according to the preceding supposition, it would have no profit from its dealings), the national advantage, resulting from the low price of labour and the destruction of paper-credit, would be a sufficient compensation. Not to mention, that so large a sum, lying ready at command, would be a convenience in times of great public danger and distress; and what part of it was used might be replaced at leisure, when peace and tranquility was restored to the nation.[115]

Like Cantillon, Hume was aware of the uneven progress of some price and income increases, in relation to others.

> At first, no alteration is perceived; by degrees the price rises, first of one commodity, then of another; till the whole at last

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[112] David Hume, "Of Money," reprinted in Eugene Rotwein, ed., David Hume Writings on Economics, (Madison: University of Wisconsin Press, 1955), p. 33).

[113] Ibid., p. 35. [114] Ibid. [115] Ibid., p. 36.

> reaches a just proportion with the new quantity of specie which is in the kingdom.[116]

However, the effect is stimulating to industry.

> In my opinion, it is only in this interval or intermediate situation, between the acquisition of money and rise of prices, that the encreasing quantity of gold and silver is favourable to industry.
>
> . . . . . .
>
> From the whole of this reasoning we may conclude, that it is of no manner of consequence, with regard to the domestic happiness of a state, whether money be in a greater or less quantity. The good policy of the magistrate consists only in keeping it, if possible, still encreasing; because, by that means, he keeps alive a spirit of industry in the nation, and encreases the stock of labour, in which consists all real power and riches.[117]

In further support of his belief in the benefits of increasing money, were Hume's statements of the evils to be expected in a nation where money was decreasing.[118]

It was the movement of increase that was stimulating and the movement of decrease that was depressing for Hume; it was not the level of the money supply. "A nation, whose money decreases, is actually, at that time, weaker and more miserable than another nation, which possesses no more money, but is on the encreasing hand."[119] Hume emphasized throughout his work that men and commodities are the strength of a nation.

Concerning interest, Hume said that money, "however plentiful, has no other effect, if fixed, than to raise the price of labour."[120]

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[116] Ibid., p. 38.

[117] Ibid., pp. 38-9.

[118] Ibid., p. 40.

[119] Ibid.

[120] David Hume, "Of Interest," reprinted in Rotwein, op. cit., p. 47.

High interest arose from heavy demand for borrowing; little riches to supply that demand; and great profits arising from commerce. Low interest, on the other hand, resulted from the opposite of those situations.[121] The demand for loans was predominantly a consumption demand, and the supply came from the savings of the merchant and trade classes.

XVII. QUESNAY AND THE PHYSIOCRATIC VIEW

Francois Quesnay owes his fame largely to the Tableau Economique, privately printed at Versailles in 1758; and he and most of the other physiocrats (unlike the mercantilists) took little interest in the role of money in the economy and their constructive contributions to the advance of monetary theory were minor.[122] Like Hume, Quesnay felt that the wealth of nations was not to be found in the quantity of money in circulation; however, in common with the other physiocrats, Quesnay felt the wealth of a country was in its agriculture.

XVIII. TURGOT ON DIFFERENT FORMS OF MONEY

Anne Robert Jacque Turgot wrote his Reflections on the Formation and Distribution of Riches in 1766 for two Chinese students, to help them in sending him information concerning economic conditions in their country.[123] He felt that all commodities had the properties of money; and

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[121] Ibid., p. 49.

[122] Kuhn, op. cit., p. 238.

[123] Monroe, Early Economic Thought, p. 350.

called furniture, tools, merchandise, cattle and other such possessions "moveable riches."[124]

Also, Turgot felt that all money must have value as a commodity. Nevertheless he saw great importance in money as a contributor to economic welfare through purchases and loans. The use of money, Turgot felt, greatly accelerated and facilitated the division of labor.[125]

The current rate of interest on money, he said, is the thermometer by which we can form an opinion as to the abundance or scarcity of "capitals;" it is the measure of the degree to which a nation can extend its agricultural, manufacturing, and commercial enterprises.[126] The rate of interest, Turgot said, may be regarded as a "kind of level below which all labor, all cultivation, all industry, all commerce cease."[127] He continued, "It is the abundance of capitals which enlivens all enterprises, and low interest on money is at once the effect and the index of the abundance of capitals.[128]

XIX. CONDILLAC AND MODIFICATION OF THE PHYSIOCRATIC VIEW

E. B. de Condillac's La Commerce et le Gouvernement, appearing in 1776, treated money only briefly.[129] Condillac, to refute the common

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[124] Ibid., p. 351.

[125] Kuhn, op. cit., p. 238.

[126] Monroe, Early Economic Thought, p. 371.

[127] Ibid., p. 372.

[128] Ibid.

[129] Monroe, Monetary Theory Before Adam Smith, p. 155.

error about the importance of the money supply, pointed out that changes in the quantity of money meant changes in prices, and that the amount of money needed depended on the frequency with which payments were made. If all bills were paid twice a year only half as much money would be needed as if all bills were paid once a year. "The importance of driving home this point filled his mind, apparently; for although he brought prices and circulation into this close connection, he failed to note the relation between them."[130]

Condillac comments that losses to landlords or farmers arising from changes in prices would be avoided if rents were paid in commodities.[131]

In an apparent attempt to offset the influence of those physiocrats who criticized the mercantilists for their bias in favor of the precious metals, Condillac

> . . . observed that the abundance of metallic money is not the first and principal measure of wealth; but to go as far as contending that an abundance of gold and silver is not true wealth obviously is tantamount to throwing the child out with the bath water.[132]

In the same year that saw the publication of Condillac's work, Adam Smith published his monumental The Wealth of Nations, marking the beginning of the classical school of economics.

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[130] Ibid., p. 239.

[131] Ibid., p. 245.

[132] Kuhn, op. cit., p. 239.

CHAPTER III

ADAM SMITH

Monetary affairs found their place among the wide-ranging variety of subjects Adam Smith discussed in The Wealth of Nations. It is apparent that to some extent Smith relied on the writings of his predecessors, but his keen observation of the affairs of men resulted in the presentation of some ideas which were, at the least, newly recorded. Although Smith's advocacy of the real-bills doctrine and of unconditional convertibility are clear cut, other areas of his presentation have been criticized as ambiguous; however an evaluation of the contribution made by Adam Smith to monetary theory will be deferred until Chapter VII.

I. ORIGIN AND USE OF MONEY

Early in The Wealth of Nations (in Chapter IV of Book I), Adam Smith treated the origin and use of money. He pointed out that division of labor made barter inadequate and led to the necessity of settling upon a particular commodity that most people would find acceptable in exchange; and he mentioned a number of the quite various commodities which in different times and places had been used to satisfy this need: cattle, salt, shells, dried cod, tobacco, sugar, hides and nails.[1] Smith pointed out,

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[1]Adam Smith, An Inquiry into the Nature and Causes of The Wealth of Nations (reprinted in two volumes from the sixth edition, with an introduction by William Robert Scott; London: G. Bell and Sons, Ltd., 1925), I, 24.

however, that metals are uniquely suited above all other commodities for the purpose of exchange, since metals are superior in durability and divisibility; and when metals came to be coined the considerable inconvenience of weighing and assaying were overcome. The stamp of the sovereign on the coin, attesting to a certain weight and fineness of the precious metal, permitted the great convenience of simply counting coins. However, Smith deplored the fact that the

> . . . avarice and injustice of princes and sovereign states, abusing the confidence of their subjects have by degrees diminished the real quantity of metal, which had been originally contained in their coins.[2]

This operation, Smith recognized, benefitted the sovereign and all other debtors in the state.

II. THE REAL AND NOMINAL PRICE OF COMMODITIES

Money was the means by which exchanges of goods were accomplished; however, labor was the real measure of the exchangeable value of all commodities.

> What is bought with money or with goods is purchased by labour, as much as what we acquire by the toil of our own body. That money or those goods indeed save us this toil. They contain the value of a certain quantity of labour which we exchange for what is supposed at the time to contain the value of an equal quantity. Labour was the first price, the original purchase-money that was paid for all things. It was not by gold or by silver, but by labour, that all the wealth of the world was originally purchased; and its value, to those who possess it, and who want to exchange it for some new productions, is precisely equal to the quantity of labour which it can enable them to purchase or command.[3]

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[2] Ibid., I, 28.

[3] Ibid., I, 30-1.

Nevertheless, it seemed to Smith more natural and obvious to estimate values in terms of money, since this was the medium of exchange, than to estimate exchangeable value by the quantity of labor or of any other commodity.[4] By the money-price of goods, Smith meant the quantity of pure gold or silver for which they are sold, regardless of the denomination of the coin.[5] Gold and silver themselves, though, like other commodities, would vary in value depending upon the ease or difficulty of acquiring them.

> The discovery of the abundant mines of America reduced, in the sixteenth century, the value of gold and silver in Europe to about a third of what it had been before. As it cost less labour to bring those metals from the mine to the market, so when they were brought thither they could purchase or command less labour; . . . At all times and places that is dear which it is difficult to come at, or which it costs much labour to acquire; and that cheap which is to be had easily, or with very little labour. Labour alone, therefore, never varying in its own value, is alone the ultimate and real standard by which the value of all commodities can at all times and places be estimated and compared. It is their real price; money is their nominal price only.[6]

Concerning the reason for variations between the mint price and the market price of gold or silver, Smith asserted:

> But when . . . the market price either of gold or silver bullion continues for several years together steadily and constantly, either more or less above, or more or less below the mint price: we may be assured that this steady and constant, either superiority or inferiority of price, is the effect of something in the state of the coin, which, at that time, renders a certain quantity of coin either of more value or of less value than the precise quantity of bullion which it ought to contain.[7]

Much later in The Wealth of Nations (in the Chapter "Of Treaties of Commerce") Smith suggests the means for preventing the melting down of coin.

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[4] Ibid., I, 32.

[5] Ibid., I, 47.

[6] Ibid., I, 33.

[7] Ibid., I, 46.

> A seignorage will, in many cases, take away altogether, and will, in all cases, diminish the profit of melting down the new coin. This profit always arises from the difference between the quantity of bullion which the common currency ought to contain, and that which it actually does contain. If this difference is less than the seignorage, there will be loss instead of profit. If it is equal to the seignorage, there will neither be profit nor loss. If it is greater than the seignorage, there will indeed be some profit, but less than if there was no seignorage.[8]

III. MONEY AS A BRANCH OF THE GENERAL STOCK

The whole price or exchangeable value of the annual produce of a country, Smith felt, was parcelled out among the people in three ways: wages for labor, profits on stock, or rent of land.[9]

In Chapter I of Book II, Smith discussed the division of stock.[10] A man's stock was divided into two parts: capital, which was expected to yield revenue; and that which was not expected to yield profit, but was held for immediate consumption. Capital was divided into two parts: fixed capital and circulating capital. Hence, the general stock of a country divided itself into three parts: goods for immediate consumption; fixed capital; and circulating capital.

The stock reserved for immediate consumption, and which afforded no revenue, consisted of food, clothes, household furniture, homes, etc.

The purpose of fixed capital was to increase the productive powers of labor, and its major distinction was that it afforded profit without circulating or changing owners. It consisted mainly of four things:

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[8] Ibid., II, 57-8.

[9] Ibid., I, 285.

[10] Ibid., I, 276-84.

machines and instruments of trade; profitable buildings; improvements of land; and useful abilities of people.

Circulating capital was so called because it produced no revenue while remaining in the owner's possession, or continuing in the same shape. Circulating capital also was composed of four parts: provisions, materials, and finished work of all kinds in the hands of their respective dealers, and the money necessary for circulating and distributing them to those who are finally to consume them.

Fixed capital originally derived from, and continually had to be supported by, circulating capital; and different occupations required very different proportions of fixed and circulating capital.

> The gross revenue of all the inhabitants of a great country comprehends the whole annual produce of their land and labour; the neat revenue, what remains free to them after deducting the expence of maintaining; first, their fixed; and secondly, their circulating capital; or what, without encroaching upon their capital, they can place in their stock reserved for immediate consumption, or spend upon their subsistence, conveniencies, and amusements. Their real wealth too is in proportion, not to their gross, but to their neat revenue.[11]

Although the whole expense of maintaining fixed capital had to be excluded from the net revenue of society, it was not the same with the circulating capital. Of the four parts of circulating capital, three—provisions, materials, and finished work—regularly moved from circulating capital to either fixed capital or to the stock reserved for immediate consumption. Therefore, the maintenance of those three parts withdrew no portion of the annual produce from the net revenue of the society,

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[11] Ibid., I, 286.

besides what was necessary for maintaining fixed capital.[12] The expense of collecting and maintaining the stock of money (the fourth part of circulating capital) was, however, a deduction from the net revenue. In this way that part of circulating capital which was money resembled fixed capital. Money resembled fixed capital also in a second way:

> . . . money, by means of which the whole revenue of the society is regularly distributed among all its different members, makes itself no part of that revenue. The great wheel of circulation is altogether different from the goods which are circulated by means of it. The revenue of the society consists altogether in those goods, and not in the wheel which circulates them. In computing either the gross or the neat revenue of any society, we must always, from their whole annual circulation of money and goods, deduct the whole value of the money, of which not a single farthing can ever make any part of either.[13]

"The great wheel of circulation," although no part of revenue, was recognized as a valuable part of capital.

The third way Smith indicated that the money part of circulating capital resembled fixed capital was that any saving in the expense of collecting and maintaining the stock of money was an improvement in net revenue.[14] The substitution, therefore, of paper money for precious metals represented a convenience and a saving. Smith continued, "There are several different sorts of paper money; but the circulating notes of banks and bankers are the species which is best known, and which seems best adapted for this purpose."[15] The handling of this paper money, however, presented some problems.

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[12] Ibid., I, 288.

[13] Ibid., I, 289.

[14] Ibid., I, 292.

[15] Ibid., I, 292-3.

IV. PAPER MONEY

Effect of Paper Money on Circulation of Gold

Smith pointed out that confidence in bankers' ability to pay on demand any of their notes presented permitted the issuance of circulating bank notes; and, if they found it ample for meeting demands, only one fifth of the amount of notes in circulation might be maintained in gold and silver. Hence the whole circulation could be conducted with a fifth of the gold and silver which would otherwise have been necessary.[16]

If one million pounds were necessary to circulate and distribute the annual produce of the land and labor to its consumers, the channel of circulation would not change if bank notes in the amount of one million pounds were made available. Whatever quantity of gold and silver were not being used to back the paper (say four-fifths) would "overflow" and would be sent abroad, the paper remaining at home taking the place of the metal.[17]

The metal sent abroad might be used to purchase goods for consumption by unproductive people, but most of the purchase of foreign goods promoted industry by adding materials, tools, and provisions to furnish additional employment.

> When paper is substituted in the room of gold and silver money, the quantity of the materials, tools, and maintenance, which the whole circulating capital can supply, may be increased by the whole value of gold and silver which used to be employed in purchasing them. The whole value of the great wheel of circulation and distribution, is added to the goods which are circulated and distributed by means of it.[18]

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[16] Ibid., I, 293. [17] Ibid., I, 294. [18] Ibid., I, 296-7.

Although Smith stated that it was, perhaps, impossible to determine the proportion which circulating money bore to the whole value of annual produce circulated by means of it, he felt that if four-fifths of the gold and silver could be freed by paper, and if the major part of that added to the maintenance of industry, "it must make a very considerable addition . . . to the value of the annual produce of land and labour."[19]

Natural Limits of Paper Issue

It was only the overflow of gold and silver that could move abroad, since the paper money would not be acceptable outside the country where payment could be legally enforced. However, what was to limit the issuance of paper domestically? If people had more paper money than was needed for transacting their business, since they could not send it abroad, it would be returned to the banks, and after conversion into gold or silver the excess then could be sent abroad.

> The whole paper money of every kind which can easily circulate in any country never can exceed the value of the gold and silver, of which it supplies the place, or which (the commerce being supposed the same) would circulate there, if there was no paper money.[20]

A bank, therefore, if it attempted to circulate more paper than the circulation easily absorbed, would find the money returning and would have to hold sufficient additional reserves of gold and silver to meet the demands, nullifying any anticipated gain from the excess issue. Banks, however, had incomplete understanding of, or inattention to, their own interests and an excess of paper money had frequently occurred.[21]

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[19] Ibid., I, 297. [20] Ibid., I, 301. [21] Ibid., I, 304.

The Bank of England had to supply the coin necessary to support excessive circulation of paper money.

As Smith himself puts it:

> A banking company, which issues more paper than can be employed in the circulation of the country, and of which the excess is continually returning upon them for payment, ought to increase the quantity of gold and silver, which they keep at all times in their coffers, not only in proportion to this excessive increase of their circulation, but in a much greater proportion; their notes returning upon them much faster than in proportion to the excess of their quantity. Such a company, therefore, ought to increase the first article of their expence, not only in proportion to this forced increase of their business, but in a much greater proportion.
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> The coffers of such a company too, though they ought to be filled much fuller, yet must empty themselves much faster than if their business was confined within more reasonable bounds, and must require, not only a more violent, but a more constant and uninterrupted exertion of expence in order to replenish them. The coin too, which is thus continually drawn in such large quantities from their coffers, cannot be employed in the circulation of the country. It comes in place of a paper which is over and above what can be employed in that circulation, and is, therefore, over and above what can be employed in it too. But as that coin will not be allowed to lie idle, it must, in one shape or another, be sent abroad, in order to find that profitable employment which it cannot find at home; and this continual exportation of gold and silver, by enhancing the difficulty, must necessarily enhance still further the expence of the bank, in finding new gold and silver in order to replenish those coffers, which empty themselves so very rapidly. Such a company, therefore, must, in proportion to this forced increase of their business, increase the second article of their expence still more than the first.
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> Let us suppose that all the paper of a particular bank, which the circulation of the country can easily absorb and employ, amounts exactly to forty thousand pounds; and that for answering occasional demands, this bank is obliged to keep at all times in its coffers ten thousand pounds in gold and silver. Should this bank attempt to circulate forty-four thousand pounds, the four thousand pounds which are over and above what the circulation can easily absorb and employ, will return upon it almost as fast as they are issued. For answering occasional demands, therefore, this bank ought to keep at all times in its coffers, not eleven thousand pounds only, but fourteen thousand pounds. It will thus gain nothing by the interest of the four thousand pounds excessive circulation; and it will lose the whole expence of continually collecting four thousand pounds in gold and

silver, which will be continually going out of its coffers as fast as they are brought into them.

Had every particular banking company always understood and attended to its own particular interest, the circulation never could have been overstocked with paper money. But every particular banking company has not always understood or attended to its own particular interest, and the circulation has frequently been overstocked with paper money.

By issuing too great a quantity of paper, of which the excess was continually returning, in order to be exchanged for gold and silver, the Bank of England was for many years together obliged to coin gold to the extent of between eight hundred thousand pounds and a million a year; or, at an average, about eight hundred and fifty thousand pounds. For this great coinage the bank (in consequence of the worn and degraded state into which the gold coin had fallen a few years ago) was frequently obliged to purchase gold bullion at the high price of four pounds an ounce, which it soon after issued in coin at £3 17s. 10½d. an ounce, losing in this manner between two and a half and three per cent. upon the coinage of so very large a sum. Though the bank therefore paid no seignorage, though the government was properly at the expence of the coinage, this liberality of government did not prevent altogether the expence of the bank.[22]

Real Bills and Cash Accounts

The paper money advanced would never exceed the value of the gold and silver which would have circulated in its place, provided banks restricted their lending to supplying only that part of capital which the businessman otherwise would have to keep idle in ready money. What Smith called "over-trading" had been, he said, the original cause of excessive circulation of paper money.[23]

When a bank discounts to a merchant a real bill of exchange drawn by a real creditor upon a real debtor, and which, as soon as it becomes due, is really paid by that debtor; it only advances to him a part of the value which he would otherwise be obliged to keep by him unemployed and in ready money for answering occasional demands. The payment of the bill, when it becomes due, replaces to the bank the value of what

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[22] Ibid., I, 302-4.

[23] Ibid., I, 306.

> it had advanced, together with the interest. The coffers of the bank, so far as its dealings are confined to such customers, resemble a water pond, from which, though a stream is continually running out, yet another is continually running in, fully equal to that which runs out; so that, without any further care or attention, the pond keeps always equally, or very near equally full. Little or no expence can ever be necessary for replenishing the coffers of such a bank.[24]

In addition to discounting bills, banks could safely advance money on a cash account to a businessman with no bills to discount provided no over-trading was involved and the purpose of the loan was to provide ready money. However, it was important that the bank carefully observe whether, over a period of several months, repayments were equal to advances. If repayments were falling short of advances, it would not be safe for the bank to continue dealing with such a customer.[25]

Repayments equal to advances over short periods of time had the advantage of saving the bank the expense of replenishing its coffers, and also enabled the banker to judge the circumstances of many debtors through his own experience with them. In addition, "they secured themselves from the possibility of issuing more paper money than what the circulation of the country could easily absorb and employ."[26] That is, the bank was assured that the paper money advanced had not exceeded the gold and silver the businessman otherwise would have had to hold. If the advances of the bank had exceeded the amount the borrower would have held in ready money, repayments could not, over moderate periods of time, have equalled advances; hence a record, over short periods, of repayments equal to

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[24] Ibid., I, 306. [25] Ibid., I, 307. [26] Ibid., I, 308.

advances was evidence that the paper money borrowed was only that amount necessary for circulation.

If, Smith reiterated, banks' issues of paper money exceeded the quantity of gold and silver which the merchants otherwise would keep on hand for "occasional demands," the advances

> might soon come to exceed the whole quantity of gold and silver which (the commerce being supposed the same) would have circulated in the country, had there been no paper money; and consequently to exceed the quantity which the circulation of the country could easily absorb and employ; and the excess of this paper money would immediately have returned upon the bank in order to be exchanged for gold and silver.[27]

Smith emphasized that all the banks could, therefore, safely do was (by means of discounting bills or by cash accounts) to relieve businessmen from the need to keep part of their stock unemployed to supply ready money. A bank could not, in its own interest, advance all or even most of the circulating capital of a business, nor any considerable part of fixed capital--because of the length of time before returns would be realized.[28] The wisest bank operations, therefore, contributed to an increase in the industry of a country not by adding to capital, but by making a greater part of that capital active and productive.[29] Also, the gold and silver freed moves from unproductive to productive use.

> It is not by augmenting the capital of the country, but by rendering a greater part of that capital active and productive than would otherwise be so, that the most judicious operations of banking can increase the industry of the country. That part of his capital which a dealer is obliged to keep by him unemployed, and in ready money, for answering occasional demands, is so much dead stock, which, so long as it remains in this situation, produces nothing either to

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[27] Ibid., I, 309. [28] Ibid., I, 309-10. [29] Ibid., I, 324.

> him or to his country. The judicious operations of banking enable him to convert this dead stock into active and productive stock. . . . The gold and silver money which circulates in any country . . . is, in the same manner as the ready money of the dealer, all dead stock. . . . The judicious operations of banking, by substituting paper in the room of a great part of this gold and silver, enable the country to convert a great part of this dead stock into active and productive stock. . . . The commerce and industry of the country, however, it must be acknowledged, though they may be somewhat augmented, cannot be altogether so secure, when they are thus, as it were, suspended upon the Daedalian wings of paper money, as when they travel about upon the solid ground of gold and silver.[30]

Necessary Restrictions on Paper Issue

Elaborating on the dangers of paper money, Smith pointed out that besides the danger of unskilled management, there were other dangers which even skill and prudence could not prevent. One was loss to a victorious enemy of the precious metal backing the paper. For this reason a country should not only guard against excessive issue of paper money "which ruins the very banks which issue it; but even against that multiplication of it, which enables them to fill the greater part of the circulation of the country with it."[31]

Smith looked at the circulation of goods as having two branches: among dealers, and between dealers and customers. It seemed to him that

> the value of the goods circulated between the different dealers, never can exceed the value of those circulated between the dealers and the consumers; whatever is bought by the dealers, being ultimately destined to be sold to the consumers.[32]

Since circulation between dealers was at wholesale, the money that served to facilitate that circulation tended to be in larger amounts, and to

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[30] Ibid., I, 324-5. [31] Ibid., I, 326. [32] Ibid.

turn over more slowly, than the money involved in the circulation of goods to consumers. Therefore, although annual purchases of consumers were at least equal to those of all dealers, transactions at the consumer level required a smaller quantity of money, changing hands more rapidly and in smaller amounts.

Banking would be safer, Smith felt, if paper money were issued only in denominations of five pounds or more since it would tend to circulate only in the dealer-to-dealer stream. Under those circumstances, paper money could not replace gold and silver entirely. Since the ready money a dealer had to keep was used for dealer-to-dealer transactions, the limitation of paper money to that stream would not interfere with bankers' ability to facilitate commerce. (The dealer needed to keep no ready money available for transactions with his customers, since they brought money to him.)

It caused Smith some concern that to issue regulations limiting banks' activities in issuing paper money was a violation of "natural liberty."[33] However, he pointed out that such regulation was justified because of the possible danger to the security of society.

When paper money was used, Smith believed, there would be no price rise as long as the paper money was "issued by people of undoubted credit, payable upon demand without any condition, and in fact always readily paid as soon as presented."[34] Such money was in every way equal to gold and silver money.

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[33] Ibid., I, 329.

[34] Ibid.

would paper money, by increasing the quantity of money, decrease the value of the whole currency and thus raise prices? Smith said that when paper money was added to the currency an equal amount of gold and silver was taken from it, so "paper money does not necessarily increase the quantity of the whole currency."[35] Paper money of doubtful convertibility, Smith emphasized, would fall below the value of gold and silver to a greater or less degree depending on the uncertainty.

> If bankers are restrained from issuing any circulating bank notes, or notes payable to the bearer, for less than a certain sum; and if they are subjected to the obligation of an immediate and unconditional payment of such bank notes as soon as presented, their trade may, with safety to the public, be rendered in all other respects perfectly free.[36]

V. INTEREST

To Smith, interest was compensation for the use of money. The profit earned with the money belonged partly to the borrower who took the trouble and risk, and partly to the lender who made the enterprise possible.[37] To the lender the loan was considered capital, and probably was used as capital by the borrower. A prudent man would not borrow to consume because another source of revenue would have to be found to pay the interest and to restore the capital.[38]

Although almost all interest-bearing loans were made in money, actually the lender assigned to the borrower "his right to a certain

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[35] Ibid., I, 329.

[36] Ibid., I, 334.

[37] Ibid., I, 53.

[38] Ibid., I, 356.

portion of the annual produce of the land and labor of the country."[39] As a result, Smith considered the quantity of money available for lending to be independent of the value of the money, but regulated instead by

> . . . the value of that part of the annual produce, which, as soon as it comes either from the ground, or from the hands of the productive labourers, is destined not only for replacing a capital, but such a capital as the owner does not care to be at the trouble of employing himself. As such capitals are commonly lent out and paid back in money, they constitute what is called the monied interest. It is distinct, not only from the landed, but from the trading and manufacturing interests, as in these last the owners themselves employ their own capitals.[40]

The "capitals" conveyed by owners who did not care to employ them themselves might be greater in any proportion than the money used for the conveyance because a borrower might purchase goods from a seller who, having no immediate use for the money might lend it to another, who might buy goods from a seller who was another lender and so on. The loans might all be well secured and profitable.[41] However, as the annual produce of a country grew, it would become more and more difficult to employ capital profitably, while at the same time the capital available for lending was increasing; therefore, interest rates would fall.[42]

Smith expressly aligned himself with Hume, and criticized Locke and Law for believing that an increase in the quantity of gold and silver caused falling interest rates in Europe after the Spanish West Indies were discovered.

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[39] Ibid., I, 357.

[40] Ibid., I, 357-8.

[41] Ibid.

[42] Ibid., I, 359-60.

> Any increase in the quantity of silver, while that of the commodities circulated by means of it remained the same, could have no other effect than to diminish the value of that metal. . . . The capital of the country would be the same, though a greater number of pieces might be requisite for conveying any equal portion of it from one hand to another. . . . The funds for maintaining productive labour being the same, the demand for it would be the same. Its price or wages, therefore, though nominally greater, would really be the same.[43]

On the other hand, Smith believed that an increase in the quantity of commodities circulated, while the quantity of money circulated remained the same, would not only raise the value of the money, but would also augment capital, causing a decrease in profits and in interest.

In further connection with interest, Smith stated that since an individual not wishing to employ his capital had the alternative of purchasing land or lending at interest, and further since the land was more secure than the loan, "the ordinary market price of land . . . depends everywhere upon the ordinary market rate of interest."[44] And the market rate of interest apparently depended on the supply and demand of capital available for lending.

VI. ADAM DICKSON'S CRITICISM OF THE REAL-BILLS DOCTRINE

So great was the influence of Adam Smith's The Wealth of Nations that opposing views of about the same time were overshadowed. Such was the fate of a small treatise written in 1773 by Adam Dickson, whose main interest apparently was agriculture, but who concerned himself with

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[43] Ibid., I, 361.

[44] Ibid., I, 364.

monetary affairs in attempting to account for the "high price of provisions."[45]

In addition to being dependent upon supply and demand, Dickson said the price of provisions depended on the state of currency, taxes, and national debt.[46] In connection with currency, "it is certain," Dickson asserted, "that the price of merchandize depends upon the proportion that the quantity in the market bears to the quantity of the current specie."[47] Further, ". . . the whole currency, multiplied by the number of hands through which it passes in a given time, is equal in value to the whole merchandize in trade . . . during that period."[48] If currency remained unchanged and merchandise increased, prices fell; and, conversely, if merchandise remained the same and currency increased, prices rose.[49] Banks, he contended, by increasing currency, raised the prices of commodities; and it was demand for credit and for currency that accounted for the establishment of banks.[50]

Giving credit to Law, Dickson stated that the principal advantage of banks was the stimulus to employment and to production resulting from

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[45]Adam Dickson, An Essay on the Causes of the Present High Price of Provisions, as Connected with Luxury, Currency, Taxes, and National Debt (London: Printed for E. and C. Dilly in the Poultry, and J. Dickson, Edinburgh, 1773). Lloyd W. Mints, A History of Banking Theory in Great Britain and the United States (Chicago: University of Chicago Press, 1945), pp. 35-41 called attention to Dickson's ideas. References herein are to the cited publication of the Dickson essay, made available by the University of Chicago Libraries.

[46]Dickson, op. cit., p. 3. [47]Ibid., p. 27.

[48]Ibid., pp. 29-30. [49]Ibid., p. 30. [50]Ibid., pp. 32-35.

the fact that "access to money is rendered easy."[51] However, Dickson saw that because of possible imbalance between individual banks, over-extension followed by restriction of credits would have the result that

> our banks must necessarily render our currency fluctuating; and the fluctuating state of our currency must not only affect the price of commodities, but also bring the debtors of the banks into very great inconveniencies.[52]

Dickson also saw that the use of banks for the accumulation of funds formerly held idle while being gathered for the payment of large debt meant an increase in the velocity of circulation, which produced the same effect as if the quantity of money had increased.[53]

If no more currency had been issued, Dickson said, than was enough to supply the demand for the increase of commodities, taxes and national debt, it would not have caused an increase in commodity prices; but the increase in currency was in greater proportion than that demand, according to Dickson, because of "the manner in which the causes of the increase of our currency naturally operate."[54] Therefore, not only did sums borrowed from banks and not used for increasing the quantity of commodities contribute to price increase, but even bank loans resulting in commodity increases were inflationary. If, for example, one hundred thousand pounds were borrowed to make land improvements which would result in additional commodities worth twenty thousand pounds being brought annually to the market, all but four hundred pounds of the one hundred thousand in

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[51] Ibid., p. 47.

[52] Ibid.

[53] Ibid., p. 51

[54] Ibid., p. 60.

new currency would be inflationary. Since Dickson assumed that money passed through fifty hands a year, four hundred pounds would be sufficient to sustain the increase in commodities of twenty thousand pounds, and any amount above that would be excess. If, instead of land improvements, the money were borrowed from the banks by traders, inflation still resulted; however, since merchandise equal to the whole sum was brought to market, 1/30 of the new currency was needed to take care of the new goods and the balance added to the money supply increased prices.[55]

Having no confidence in real bills as a regulator of currency issue, Dickson said:

> The currency ought certainly to be regulated by Government; the extent of it ought to be known; the capital of banks determined; the value of their bills in the circle regulated by their capital; and their books inspected to prevent them from circulating a greater value of bills than this capital amounts to.[56]

Adam Smith's opposing real-bills doctrine, of course, was set forth three years later.

In 1790, Adam Smith died--seven years before Parliament passed the Restriction Act, ushering in the turbulent period of the bullionist controversy. It was in this period of great argument over monetary affairs that Henry Thornton and David Ricardo made their contributions to the monetary theory of the early English classicists.

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[55] Ibid., pp. 61-2.

[56] Ibid., p. 78.

CHAPTER IV

HENRY THORNTON

Napoleon's victorious campaigns had begun when, in 1797, the Restriction Act suspended the requirement that the Bank of England redeem its notes in specie. In spite of the spending caused by the war, the inflation was mild in England and the currency did not become seriously endangered.[1] The controversies over whether, and why, the paper currency had depreciated, and the role of the Bank of England, inspired considerable examination of monetary phenomena. It was the events of the last few years of the eighteenth century and the first few years of the nineteenth that brought about Henry Thornton's commentaries on monetary affairs. In the section that follows, after a brief discussion of Thornton's background, attention is directed to his evidence given to the Houses of Parliament concerning the 1797 situation. Thornton's ideas on commercial credit and on circulating paper are then presented, followed by his criticisms of some of Smith's discussions. An analysis of Thornton's comments on the functions and policies of the Bank of England and of the country banks precedes the handling of his convictions about the role of gold prices and of the balance of trade. Thornton's pronouncements concerning the limitation of bank notes appear at the end of the section, and Chapter VII includes an evaluation of his contributions.

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[1] W. E. Kuhn, The Evolution of Economic Thought (Cincinnati: South-Western Publishing Company, 1963), p. 241.

I. HENRY THORNTON'S BACKGROUND[2]

Unlike Adam Smith and David Ricardo, who need no introduction, Henry Thornton's name is not widely recognized. Born in 1760, the youngest son of John Thornton, who was a man well known for his charities, Henry Thornton in his lifetime (he died in 1815, at the age of fifty-five) was revered principally for his philanthropies, although he was a successful banker and expert on finance.

Henry Thornton's oldest brother, Samuel, was a director and then a Governor of the Bank of England, and some writers have apparently been misled into believing that Henry Thornton was connected with the Bank of England and therefore prejudiced in his judgment of its activities.[3] Both of Henry's brothers, Samuel and Robert, were Members of Parliament and Robert was at one time a Governor of the East India Company.

Although money was not a problem in the Thornton household, Henry's education, after eight years of good schooling, suffered during the time he spent at an academy between the ages of thirteen and eighteen, because

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[2]The information offered here concerning Thornton's life was taken from F. A. v. Hayek's introduction to Henry Thornton, An Enquiry into the Nature and Effects of the Paper Credit of Great Britain (1802), Together with his Evidence Given Before the Committees of Secrecy of the Two Houses of Parliament in the Bank of England, March and April, 1797, Some Manuscript Notes, and his Speeches on the Bullion Report, May 1811, edited with an introduction by F. A. v. Hayek (New York: Augustus M. Kelley, 1962). All references to Henry Thornton's works will refer to the Kelley edition. Hayek's sources of information for his essay on Thornton's life were manuscripts made available to Hayek by members of Thornton's family, including an apparently somewhat fragmentary diary kept from time to time by Thornton and a history of his life which he wrote for the benefit of his children.

[3]Thornton, op. cit., pp. 14-5.

the school apparently was not a sufficient challenge for him. In 1780 Henry Thornton joined his father's counting-house, after having spent two years in a relative's firm. In regard to Thornton's leaving his father's establishment to become a banker, Hayek quotes the following from the diary of Henry Thornton:

> Mortified to find that little pecuniary advantage was to be expected from my connection with my Father, I gave a very willing ear to a proposition made to me by Mr. Poole of Woodford for entering into a Banking concern with Mr. Down, my present partner. My Father was averse to it, and my Mother also. I did not, however, very greatly respect their judgment and they did not forbid my becoming a Banker. My Father as I suspect chiefly feared that I should be placed under peculiar temptation to keep improper Company by my being a Banker, a point in which he was mistaken. My Mother's prejudices led her to think that to cease being a Merchant in order to become a Banker was to descend in life.[4]

Thornton remained all his life with the banking house of Down, Thornton, and Free, which he had joined in 1784 when it was Down and Free. Thornton had become a Member of Parliament in 1782 and he considered that this was one of the reasons he had been offered the association with Down and Free.

It is of passing interest that Thornton recorded in his diary that the first vote he gave in Parliament was in favor of the treaty of peace with America, and he continued: "I immediately became in some measure enlisted with the friends of Mr. Pitt and an opponent of the Coalition party."[5] Thornton was deeply interested in the abolition of the slave trade, and worked for years toward the passage of the Act of 1807. He was also concerned with debtors relief, prison reform, parliamentary reform, and an income tax graduated according to the character of income.

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[4] Ibid., pp. 16-7.

[5] Ibid., pp. 18-9.

Regarding Thornton's work in Parliament in connection with currency and banking, Hayek said:

> He was a member of the Committee of 1804 on the Irish exchange, he was elected in February 1807 a member of the committee of 21 "to examine and control the several branches of public expenditure," and there took "a considerable lead in the report made by them on the Bank affairs, by which 240,000 pounds a year has been saved to the state. I had in this case to oppose the views of my family and city connection." In 1810 at last he took a leading part not only in the work of the Bullion Committee . . . but also in the work of the Committee on the State of Commercial Credit . . . . His active years in Parliament extended just long enough not only to be a member of the Committee of 1813 "to enquire into the Corn Trade of the United Kingdom," but also to speak in the great debate on the Corn Laws in June 1814. This was almost his last speech in Parliament; it was followed by only one a little later in the same month on a bill on London Prisons.[6]

Henry Thornton and William Wilberforce were leading figures in the so-called "Clapham Sect," which was active in the fight against the slave trade, advocated popular education, founded the Sunday School Society and various other religious and charitable organizations. Charity and religion were, in fact, the major interests of Thornton's life, and until his marriage in 1796 he gave away as charity six-sevenths of his income.[7]

Thornton took a great interest in the education of his nine children, and he wrote numerous religious manuscripts which were not published until after his death. He submitted many articles to the Christian Observer, the organ of the Clapham Sect. It seems remarkable indeed that, with his busy life as a banker and Member of Parliament, and with his

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[6] Ibid., pp.29-30, citing MS. Diary, 1809.

[7] Ibid., p. 25.

family, religious and charitable activities, he found time and talent to produce the Paper Credit.

Thornton's earliest contribution to monetary and currency affairs, however, took place when he gave evidence before the Committees of Secrecy examining the demands on the Bank of England in 1797.

II. THORNTON'S EVIDENCE CONCERNING THE SITUATION OF THE BANK OF ENGLAND IN 1797

Although the war with France did not cause a serious inflation in England, considerable difficulty was created for the Bank of England.[8] With the drain of gold increasing, the bank, on the last day of 1795, announced a limitation on discounts, and a pro rata handling of bills sent in if they exceeded the limit. The year 1796 saw an increase in the failures of banks and mercantile houses; and when fears of invasion reached their height with the landing of 1,200 Frenchmen in Wales, there was a run on the Bank of England. On February 26, 1797, Pitt forbade the directors of the Bank of England to issue any cash payments pending investigation by Committees of Secrecy established in Parliament in March and April, 1797,[9] to take evidence concerning the situation of the Bank of England; and Henry Thornton appeared before each of the Committees. In addition to his being a member of the House of Commons, Thornton's wide connections with country banks, Hayek said, probably accounted for his being called by the Committees.[10]

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[8] Ibid., p. 39. [9] Ibid., p. 41 [10] Ibid.

Difference between Country Banks and the Bank of England

At his appearance before the House of Commons in 1797, after it had been established that there had been a reduction in the circulating medium,[11] Thornton was asked if it were not an established principle of banking that the banker, for his own safety, should maintain a "certain fixed proportion between his Specie and the Notes which may be out against him."[12] To this Thornton replied in the negative, stating that a banker's specie should be determined by anticipated demand. It was prudent, therefore, for country bankers, in times of distress, to seek to reduce the amount of their bearer notes, since these notes circulated among strangers who were likely to make demand for specie and further since rival banks, needing specie and holding the bearer notes, presented them to acquire specie for their own needs.

Before the House of Commons, and also before the House of Lords, where his evidence was substantially the same, Thornton made certain distinctions between the functions of country banks and the Bank of England. Notes of the Bank of England circulated with full credit in London and its surroundings, where only they circulated. If the Bank of England suppressed its notes, no other notes would fill the gap, and there would be a demand

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[11] Norman J. Silberling, "British Financial Experience 1790-1830," The Review of Economic Statistics, prel. vol. I (1919), pp. 282-97, 321-3 includes on page 292 a chart showing a sharp fall after 1795 in the annual average outstanding circulation of the Bank of England, a sharp fall in excess of notes over discounts, and, conversely, a marked rise in the annual average discounts of commercial paper held by the Bank of England after 1795.

[12] Thornton, op. cit., p. 286.

on the Bank of England specie, which must be furnished by that Bank itself. Although the country bank could reduce the quantity of its circulating bearer notes without causing general distress, such was not the case with the Bank of England which affected the credit of the whole nation because of its monopoly on the means of circulation in London, because it was bound by custom to discount for the public, and because of the size of its transactions.[13]

The Bank of England and Interest and Employment

Concerning the effect of the actions of the Bank of England on interest rates, Thornton, in his appearance before the House of Commons, expressed the opinion that

> . . . the refusal of the Bank to discount, with a view of reducing their Paper circulation, or of preventing its increase at periods when pressing applications for discounts were made to them, have often been manifestly followed by a great increase in the discounts upon Navy and Exchequer Bills, and upon India Bonds, and even by a fall in the price of Stocks.[14]

The high rate of interest and the accompanying decrease in the value of securities, could be considered, Thornton said, "rather as being the effect of the conduct of the Bank, than as the cause of the applications being made to them for discounts."[15]

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[13] Ibid., pp. 287-8, 305.

[14] Thornton, op. cit., p. 290. Silberling, op. cit., p. 289, presents a chart showing the average yield on British Three Per Cent Consols, and the average interest paid by Government on Exchequer Bills, both rising from between three and four per cent in 1790 to between five and six per cent around 1797, and then falling.

[15] Ibid., p. 291.

Further, the opinion was expressed by Thornton that reduction of Bank Notes tended to limit production and employment.[16]

Kinds and Quantity of Circulating Media

In addition to bank notes (both those of the Bank of England and those of country bankers), Thornton considered that the means of circulation consisted of coin of every sort and bills of exchange. He did not, however, consider bills of exchange equal to the other two means of circulation.[17] Further,

> . . . the Number of Bills of Exchange which may happen at any Time to exist, bears no necessary Proportion to the Magnitude of the existing Trade, although, I conceive, that the Use of them in Payment does bear a pretty regular Proportion to the Quantity of Commerce.[18]

Increased trade, Thornton said, undoubtedly caused a need for an additional quantity of the circulating media. Because of the "increased Scale of Expenditure of the Country" the increase was chiefly in bearer notes, although bills of exchange, and to some extent cash, also increased.[19]

> . . . I consider Guineas as furnishing the Means of paying small or broken Sums; and as bearing much the same Relation to Notes which Shillings do to Guineas, and that the Occasion for the Increase of their Quantity does not necessarily keep Pace with the other increased Means of Circulation.[20]

No notes except those of the Bank of England passed in London, and it was not usual there, as in the country, for use to be made of bills of exchange in payment.

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[16] Ibid. [17] Ibid., pp. 295-6. [18] Ibid., p. 296.

[19] Ibid. [20] Ibid.

In addition to the fact that the quantity of circulating bank notes depended on volume of trade, it also depended on the "State of the Public Mind, that is, on the Dispositions of Persons to detain them."[21] If a much larger quantity of notes were issued than would remain in circulation, Thornton felt that "the Effect of such excessive Emissions might be to draw Guineas out of the Bank of England."[22] On the other hand, he stated:

> I think that an increased Quantity of Notes, proportioned to the increased Occasion for them, must tend to prevent a Demand for Guineas rather than to promote it; and if the Quantity of Notes issued should be very considerably less than the Occasion of the Mercantile World requires, I should think a Run upon the Bank for Guineas would be the Consequence; for when Trade is much distressed and Failures are expected, a general Distrust is apt to be excited . . . I further think that a Scarcity of the circulating Medium of the Metropolis tends to induce some of the Country Bankers, who are the most opulent and respectable, to forbear from issuing their Bank Notes, through the Apprehension of Mercantile Distress: And their Forbearance to issue Country Bank Notes is naturally followed by a considerable increase in the Use of Guineas, all which are drawn out of the Bank of England.[23]

The Effect of Government Repayment to Banks

Questioned concerning what would have been the effect of the repayment during the previous two years of "any considerable Proportion of the Bank Advances to Government," Thornton made clear his opinion that a reduction of bank notes (in the supposed amount of five million pounds) would result in either the substitution of other paper to more or less the same amount, or in universal failures. Since the debt the government would have paid to the Bank would have been accomplished by a loan from

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[21] Ibid., p. 297. [22] Ibid. [23] Ibid., p. 298.

the public, it would have been raised from the banking or mercantile world. Some difficulty would have been caused by banks not knowing how much of the loan their customers would bear, and therefore not being able accurately to make their decisions as to what amount of notes to have available. Further, if the bank lent the same sum to merchants as was borrowed by the government to repay the banks, the effect would have been a transfer of debt from one person to another, affording the bank no relief. On the other hand, if the bank did not lend out the same sum, but instead reduced their paper circulation, failures would have resulted.

Why the Bank of England Limited Discounts

The concluding question put to Henry Thornton by the Committee of Secrecy of the House of Lords was: "Explain what you think gave rise to that Resolution of the 31st of December 1795?" (the resolution of the Bank of England to limit discounts).[24] Thornton's reply was:

> I conceive that formerly the Bank of England were accustomed to afford Discounts to as many Persons as brought in Bills which they considered as sufficiently secure, and that their Notes of course at that Time proportioned themselves to the Demands for them; but that the Directors, wishing not to continue the same Proportion between their Paper and the Demands for it which had antecedently existed, established the Rule that has been referred to, with a View of enabling themselves to limit their Discounts, and thus to limit their Paper without Prejudice to the Credit of any individual Discounter. Antecedently to that Time they had established some other Rules tending to facilitate the Limitation of their Paper.[25]

Although it was as early as 1797 when Thornton's evidence was given, it will be apparent from the discussion of his complete doctrines that many of his ideas had already formed by then.

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[24] Ibid., p. 310. [25] Ibid.

III. COMMERCIAL CREDIT AND COMMERCIAL CAPITAL

In An Enquiry into the Nature and Effects of the Paper Credit of Great Britain, Thornton defined commercial credit as "that confidence which subsists among commercial men in respect to their mercantile affairs."[26] It was this confidence that disposed men of business to lend money to each other, or to deliver to each other goods on credit. A sophisticated commercial society was unnecessary for the use of commercial credit, since whenever one person delivered property and did not receive immediate return of an equivalent value, credit was in operation.

This commercial credit was the foundation of paper credit, "paper serving to express that confidence which is in the mind, and to reduce to writing those engagements to pay, which might otherwise be merely verbal."[27] The use of credit permitted greater purchasing power on a given quantity of ready money, and competition was stimulated because of the greater number of individuals able to buy and sell.

The credit custom also created certain inconveniences, however. Bad debts increased, and businessmen had the problem of weighing risk of loss against possibility of gain. The level of credit resulted from decisions by lenders and by borrowers of the relative advantages and disadvantages involved.[28]

Concerning whether use of credit indicated wealth or poverty, Thornton indicated that trading on credit between trader and trader meant

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[26] Ibid., p. 75 [27] Ibid., p. 76. [28] Ibid., pp. 77-8.

neither wealth nor poverty among merchants; in regard to foreign trade, the use of credit showed poverty or riches of a country depending on whether the credit taken is longer or shorter than the credit given; as to credit extended by traders to customers, the indication was of a deficiency of wealth among consumers and a surplus of it among traders, because the traders must possess "a surplus of wealth, either their own or borrowed, which bears an exact proportion to the amount of debts due to them by the consumers."[29]

Thornton defined commercial capital as: finished and unfinished goods in the hands of manufacturers, destined for consumption; and "ships, buildings, machinery, and other dead stock maintained for the purpose of carrying on our manufactures and commerce," including the gold necessary to carry on commerce, which formed a small part of all the items needed, and also including the debts due to traders for "goods sold and delivered by them on credit; debts finally to be discharged by articles of value given in return."[30]

It was carefully pointed out by Thornton, however, that paper credit was not included in commercial capital and could not augment it, because what constituted a debit for one was a credit for another, exactly offsetting. Gold, on the other hand, is not balanced by an offsetting item on another individual's books.[31]

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[29] Ibid., p. 78. [30] Ibid., p. 79. [31] Ibid., pp. 79-80.

IV. MONEY AND BILLS OF EXCHANGE

Coin and Bullion

Precious metals, Thornton mentions in the Paper Credit, were more convenient than barter because they were portable, divisible and stable in price. Bullion was a commodity, but when the metals were coined into money they became simply a measure of the value of other articles. The fact that they could be reconverted into a commodity, though, was "one recommendation" of their use as coin.[32]

Bills and Notes

Bills of exchange were letters ordering the transfer of debt from one person to another, or from one place to another. Promissory notes arose when goods were delivered in return for promise to pay at a future date. In addition to the purposes for which bills of exchange and notes were created, they acquired another characteristic--they were "Discountable Articles," which could be converted into money at any time, at a discount.[33]

When goods were sold and delivered without immediate payment, even though legal procedure for collection would be facilitated by a promissory note, where there was good credit it might be felt the debt would be sufficiently secure as a book debt. However, by taking a note, the seller acquired a discountable article, which, if circumstances indicated, could be turned into money. The tendency for traders, as provision against

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[32] Ibid., pp. 81-2.

[33] Ibid., pp. 82-3.

contingencies, to hold a number of notes and bills, led not only to a multiplication of regular bills of exchange (or real notes given for goods sold) but also to the creation of many other notes and bills.

Distinction between Real and Fictitious Bills

As distinguished from real notes (notes drawn in connection with a real sale of goods), the fictitious note, or note of accommodation, was drawn for the same purpose of discount, but did not arise from the sale of goods.

The similarities between real bills and fictitious bills, according to Thornton were as follows:

> They agree, inasmuch as each is a discountable article; each has also been created for the purpose of being discounted; and each is, perhaps, discounted in fact. Each, therefore, serves equally to supply means of speculation to the merchant. So far, moreover, as bills and notes constitute what is called the circulating medium, or paper currency, of the country . . . , and prevent the use of guineas, the fictitious and the real bill are upon an equality; and if the price of commodities be raised in proportion to the quantity of paper currency, the one contributes to that rise exactly in the same manner as the other.[34]

Thornton pointed out a way in which real bills were commonly supposed to differ, which he did not feel was necessarily the case. It was sometimes said that real bills or notes represented actual goods in existence and notes not drawn in connection with a sale of goods supplied only an imaginary capital. To that common conception, Thornton countered that notes given in consequence of a real sale of goods "cannot be considered as, on that account, certainly representing any actual property."[35] For

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[34] Ibid., p. 85.

[35] Ibid., p. 86.

illustration, he presented the possibility of a six-months bill issued on the sale of goods and then those goods resold in a month, another bill issued, and so on until there might be six bills all outstanding on real sales of the same goods. The longer the credit terms and the greater the denomination of the bills, the higher the amount which would represent no property--since there was only enough property to represent one bill. The holder of the real bill, therefore, might be relying on general credit fully as much as the holder of the fictitious bill. The fictitious bill might be given by a person of considerable capital and that claim more surely backed by property than the claim of the holder of a real bill.[36]

To further show the artificiality of the distinction between real and artificial bills, Thornton stated:

> To determine what bills are fictitious, or bills of accommodation, and what are real, is often a point of difficulty. Even the drawers and remitters themselves frequently either do not know, or do not take the trouble to reflect, whether the bills ought more properly to be considered as of the one class or of the other; and the private discounter, or banker, to whom they are offered, still more frequently finds the credit of the bills to be the only rule which it is possible to follow in judging whether he ought to discount them.[37]

Regarding the points in which real bills differ from fictitious ones, Thornton said the fictitious bill was less likely to be punctually paid than the real bill, and that

> fictitious bills, besides being less safe, are less subject to limitation as to their quantity. The extent of a man's actual sales form some limit to the amount of his real notes; and, as it is highly desirable in commerce that credit should be dealt out to all persons in some sort of regular and due proportion, the measure of a man's

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[36] Ibid., pp. 86-7.

[37] Ibid., p. 89.

> actual sales, certified by the appearance of his bills drawn in virtue of those sales, is some rule in the case, though a very imperfect one in many respects.[38]

Thornton considered it unfortunate that the fictitious bill, or bill of accommodation, which was in reality the same as other promissory notes, was labelled "fictitious" when similar paper issued by those not in business was not so discredited.[39]

V. THORNTON'S CRITICISM OF SMITH'S DISCUSSION OF CIRCULATING PAPER

Henry Thornton, in discussing the circulation of notes in the place of money, with only a fraction of the value of the notes kept in money for redemption, referred to Adam Smith's statement that the stock of money is similar to fixed capital in that a certain expense was required to maintain it, and therefore the use of paper money represented a saving.[40] However, Thornton pointed out that Smith's discussion of paper circulation "does not at all advert to the tendency of bills of exchange to spare the use of bank paper, or to their faculty of supplying its place in many cases."[41] Since bills served as discountable articles and as a provision against contingencies, and were convertible into cash, the use of bills permitted a decrease in the supply of money or bank notes kept on hand.

Bills not only freed ready money for other use, but often took its place by moving from one person to another by endorsement. Bills,

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[38] Ibid., p. 87.

[39] Ibid., pp. 87-8.

[40] See pp. 45-6, supra.

[41] Thornton, op. cit., pp. 90-1.

therefore, "evidently form, in the strictest sense, a part of the circulating medium of the kingdom."[42] They were unlike bank notes, however, in that the circulation of a bank note was based on general confidence in a widely known issuer, while the circulation of bills depended on the confidence of each holder in the last endorser. Also, bank notes and gold circulated more rapidly than bills because there was no advantage to one who kept possession of them, while a bill grew more valuable when held.[43] Country bank notes might average one payment in three days, while a bill might make only one payment in nine days.[44]

> To possess some article which, so long as it is detained, shall produce a regular interest, which shall be subject to no fluctuations in price, which, by the custom of commerce, shall pass in certain cases as a payment, and shall likewise be convertible into ready money by the sacrifice of a small discount, is the true policy of the merchant. Goods will not serve this purpose, because they do not grow more valuable by detention; nor stocks, because, though they yield an interest, they fluctuate much in value; and, also, because the expence of brokerage is incurred in selling them, not to mention the inconveniences arising from the circumstance of their being transferable only in the books of the Bank of England. Stocks, however, by being at all times a saleable and ready money article, are, to a certain degree, held by persons in London in the same principle as bills, and serve, therefore, in some measure, like bills, if we consider these as a discountable article, to spare the use of bank notes. Exchequer bills will not fully answer the purpose, because there is a commission on the sale of these, as on the sale of stocks; and because . . . they fluctuate, in some small degree, in price.[45]

The following passage from Smith's The Wealth of Nations caught Thornton's particular attention: (italics Thornton's)

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[42] Ibid., p. 92.

[43] Ibid., pp. 92-4.

[44] Ibid., p. 94.

[45] Ibid., pp. 93-4.

> The whole paper money of <u>every kind</u> which can <u>easily</u> circulate in any country never can exceed the value of the gold and silver, of which it supplies the place, or which (the commerce being supposed the same) would circulate there, if there was no paper money.[46]

Smith's earlier statement: "There are [several] different sorts of paper money; but the circulating notes of banks and bankers are the species which is best known, and which seems best adapted for this purpose,"[47] Thornton felt, led to the conclusion that when Smith mentioned paper money of <u>every kind</u>, he intended to include bills of exchange; however

> if <u>all</u> the bills of exchange of a country are to be added to the bank notes which circulate, it becomes then so manifest, that the whole of the paper must be more than equal to the amount of the money which would circulate if there were no paper, that we feel surprised that the erroneousness of the position did not strike Dr. Smith himself.[48]

Thornton's interpretation of what Smith meant by the qualifying word <u>easily</u> was that it was a reference to "an easy, in contradistinction to a forced, paper circulation; for it is on the subject of a forced circulation that a great part of his observations turn."[49] Smith had not, as had Thornton, referred to circulation as being slow or rapid, a quite different thing, Thornton pointed out, from easy or difficult. Further, concerning Smith, Thornton stated:

> He appears, in short, not at all to have reflected how false his maxim is rendered (if laid down in the terms which he has used) both by the different degrees of rapidity of circulation which generally belong to the two different classes of paper of which I have spoken, and also by the different degrees of rapidity which may likewise

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[46] <u>Ibid</u>., p. 95. See p. 48, <u>supra</u>.

[47] Thornton, <u>loc. cit</u>. See p. 46, <u>supra</u>.

[48] Thornton, <u>loc. cit</u>.

[49] <u>Ibid</u>.

belong to the circulation of the same kinds of paper, and even of the same guineas, at different times.[50]

Thornton found several causes for variation in the rapidity of the circulation of bank notes. A high state of confidence, contributing to less provision against contingencies, increased circulation; while in times of distress, hoarding took place (at least of Bank of England notes, although not to the same extent as guineas).[51] To elaborate, Thornton told of the successful remedy administered by Parliament to the bank failures and slowing of circulation in 1793. A loan of exchequer bills was made available to any mercantile persons with proper security and "the failures abated greatly, and mercantile credit began to be restored, not at the period when the exchequer bills were actually delivered, but at a time antecedent to that aera."[52] It was the government's credit that was lent--not money nor bank notes.

Thornton further pointed out that when specie seems to disappear in times of apprehension it might not entirely be the result of hoarding, but mainly of the efforts of bankers, shopkeepers and others to increase their customary supply. A slower circulation of guineas resulted, "and the slower the circulation, the greater the quantity wanted, in order to effect the same number of money payments."[53]

Other circumstances that contributed to the prevention of the quantity of notes circulating from being the same as the quantity of gold

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[50] Ibid., pp. 95-6.

[51] Ibid., 96-7.

[52] Ibid., p. 98.

[53] Ibid., p. 100.

which would circulate if there were no notes, were: their convenience, their safety of transport, and their faculty of use either as guineas or as bills of exchange.

With further reference to Adam Smith's comment on the quantity of notes in circulation, Thornton objected that it would lead one to assume that the trade of a country might be carried on entirely by guineas if bank notes of all kinds were eliminated, whereas actually another substitute other than gold would "unquestionably be found."[54] Men would find ways to avoid the inconveniences of gold and the amount of guineas used would not correspond with the amount of bills and notes suppressed.

> Banks would be instituted, not of the description which now exist, but of that kind and number which should serve best to spare both the trouble of gold, and the expence incurred by the loss of interest upon the quantity of it in possession. Merely by the transfer of the debts of one merchant to another, in the books of the banker, a large portion of what are termed cash payments is effected at this time without the use of any bank paper, and a much larger sum would be thus transferred, if guineas were the only circulating medium of the country. Credit would still exist . . . in books . . . or on the mere verbal promise of parties.[55]

Thornton deplored the fact that people often thought that those who suffered in a restriction of credit were speculators whose overextensions had brought them justly to grief. No doubt it was the most adventurous who were the first to fail; however, even if the venturesome spirit among traders had been considerably less, the distress would have fallen on those who had been "comparatively, the more adventurous part of the trading world."[56] He also pointed out the error of the public's

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[54] Ibid., p. 101. [55] Ibid. [56] Ibid., p. 120.

assumption that it was not lack of gold, but lack of mercantile capital which showed up in a failure of paper credit. Indeed, as goods pile up in manufacturers' warehouses, the subsequent suspension of labor, which was a consequence of the suspension of credit, caused a decrease in the mercantile capital. The evil, therefore, consisted of a lack of sufficient circulating medium to transfer the goods. In this discussion, Thornton referred to the increased quantity of the circulating medium necessary when confidence was low, because at that time rapidity of circulation fell. "The substitution of gold for paper, and of better paper for that which is worse, and some temporary increase of the gold and good paper actually circulating, are obviously the remedy."[57]

VI. POLICIES OF THE BANK OF ENGLAND

It also disturbed Thornton that Smith had made the statement that the Bank of England had issued too much paper, that the excess continually returned to be exchanged for gold and silver, and therefore the Bank of England had to bear the expense of coining additional gold, sometimes paying more for the bullion than the value of the coins. To this Thornton ventured the comment that Smith could probably not have been informed of the secret of the actual quantity of those bank notes, and must have simply assumed that they were excessive because of the high price of gold and the quantity of coinage.

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[57] Ibid.

> He does not proceed, in any respect, to guard or to limit the observation in question; an observation which, when thus unqualified, may lead the reader to suppose, that whenever the bank finds itself subjected to any great demand for gold in consequence of a high price of bullion, the cause of this evil is an excess of circulating paper, and the remedy a reduction of bank notes. There is also danger, lest it should be conceived, that if the remedy should appear to fail, it can fail only because the reduction is not sufficiently great.[58]

In order to show that the quantity of Bank of England paper should not be reduced whenever there was a demand on the bank for guineas because of the high price of bullion, and to show that such reduction might aggravate a rise caused by an internal drain, Thornton devoted considerable space to a description of the nature and policies of the Bank of England.[59]

In that discussion, Thornton covered the Bank of England's handling of domestic and foreign drafts and its independence of, and large-scale lending to, the government.

> To suppose that bank notes are issued to excess, with a view to furnish means of lending money to the minister, is, in a high degree, unreasonable. The utmost sum which he could hope to gain in the way of loan from the bank, by means of an extraordinary issue of bank notes, could hardly be more than four or five millions; and it is not easy to believe, that a government which can raise at once twenty or thirty millions, will be likely, for the sake of only four or five millions (for the loan of which it must pay nearly the same interest as for a loan from the public), to derange the system, distress the credit, or endanger the safety of the Bank of England.[60]

In that particular, the Bank of England differed, according to Thornton, from the national or government banks on the continent, which could not

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[58] Ibid., p. 103.

[59] Ibid., pp. 104, et seq.

[60] Ibid., pp. 106-7, giving credit to Sir Francis Baring for having made the same remark in a pamphlet published not long before.

easily raise money from the people and did extend their paper issues and also at times depreciated their coin.[61]

The issues of the Bank of England were, further, not likely to be excessive because it had recently become the practice to make their number public. Also, the directors and proprietors of the bank knew the importance of avoiding dangerous extension.[62] The bank itself had formerly experienced fluctuations in cash, and

> . . . the amount of gold in the bank, at any one particular aera, is, perhaps, therefore, on the ground of this experience, not now considered by the commercial world as having all that importance which was given to it when the bank affairs were involved in greater mystery. It is perfectly well understood among all commercial men, that gold coin is not an article in which all payments (though it is so promised) are at any time intended really to be made; that no fund ever was or can be provided by the bank which shall be sufficient for such a purpose; and that gold coin is to be viewed chiefly as a standard by which all bills and paper money should have their value regulated as exactly as possible; and that the main, and indeed, the only, point is to take all reasonable care that money shall in fact serve as that standard.[63]

Thornton considered the latter statement to be the "great maxim to be laid down on the subject of paper credit."[64] What, then, was necessary to be sure that the value of circulating paper, in whatever amount, conformed to the standard of gold? There should be a certain degree of interchange of gold for paper, therefore a considerable fund of gold must be kept in the country (and in England the depository for it was the Bank of England). The fund should provide not only for the usual fluctuations in demand for coin, but also should provide against the effects of an unfavorable

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[61] Thornton, op. cit., pp. 107-8. [62] Ibid., pp. 109-10.

[63] Ibid., p. 111. [64] Ibid.

balance of trade, and the fund should be enough to meet any extraordinary domestic demand.[65] Before the suspension of cash payments by the Bank of England, its gold had been reduced by an unfavorable balance of trade; however, exchange with Europe had so improved that gold was beginning to flow back. Then fear of invasion led to a lack of confidence among the people.[66] The suspension of cash payments by the Bank of England was not because of overissue of paper, nor overextension of loans.

The distress in London just before 1797, as in 1793, was a "distress for notes of the Bank of England,"[67] yet the number was lessened in some degree--a path consistent with Smith's recommendations.[68]

Any very great and sudden reduction in the notes of the Bank of England would, Thornton pointed out, result in general insolvency, loss of confidence, "derangement of commerce, and the stagnation of manufactures."[69] Gold would be hoarded, not to appear again until confidence had been restored by "the previous introduction of some additional or some new paper circulation."[70] The credit of any substitute, however, would be inferior to the credit of the notes of the Bank of England.

When there was a demand upon the Bank of England for gold, the gold either went abroad to settle an unfavorable balance of trade, filled a void in the circulation of the country, added to the fund of country

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[65] Ibid., pp. 111-2. [66] Ibid., p. 112. [67] Ibid., p. 113.

[68] "They lessened the number of their notes, which, having been for some years before near eleven millions, and having been reduced, for some time, to between nine and ten millions, were at this particular moment brought down to between eight and nine million." Ibid.

[69] Ibid., p. 114. [70] Ibid.

banks, or was hoarded by individuals. It hardly ever was taken as a substitute for Bank of England notes. If the Bank of England wanted to maintain the amount of its paper circulation, it had to reissue the note as a loan.

> Thus, then, the bank is rendered liable to be exhausted of its guineas, by its determination to maintain the number of its notes, whether that number be greater or smaller; and here, also, let it be remarked by the way . . . that the bank, in consequence of its determination to maintain a given number of notes, is placed under an absolute necessity of increasing its loans to the very same extent to which it is deprived of its guineas. . . . It thus clearly appears that the Bank of England is placed, by the very nature of its institution, in a situation in which it may not be possible to avoid a temporary failure in the regularity of its cash payments.[71]

Thornton believed that if there had been any fault in the conduct of the Bank of England that it was on the side of its having too much restricted its notes rather than the opposite, and in so doing perhaps in some measure the bank aggravated the demand for guineas in the period preceding the suspension of payments.[72] "If the bank would have somewhat diminished its danger by issuing more notes, the granting of more loans would have also diminished its danger."[73]

Some suspicion that the loans by the Bank of England to the government had caused the bank's difficulties was not shared by Thornton. The government, he said, if it wished to pay its debt to the bank, paid in bank notes which it had to raise by the sale of its obligations to persons in possession of them. If all the notes paid to the bank by the government were reissued to merchants, there would be no change in the

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[71] Ibid., p. 120. [72] Ibid., pp. 127-8. [73] Ibid., p. 132.

notes in circulation. The government, when it borrows, puts the notes into circulation as the merchant does, and "it is the total quantity of circulating notes, and not the manner in which they come into circulation that is the material point."[74]

The total loans the bank had made both to government and to individuals necessarily had been maintained, at the time of the suspension of cash payments, beyond the proportion in which notes were maintained. Loans of the bank did not simply keep pace with notes, but necessarily increased or decreased with gold flows out of or into the bank.

In explaining why the bank notes issued by the Bank of England and its deposits were included on the same side of the statement of account, Thornton recognized that

> it is in substance the same thing whether a person deposits . . . money with the bank, taking no note, but obtaining a right to draw a draft on a banking account which is opened in his name, or whether he deposits the same . . . and receives for it a bank note. . . . The notes, it is true, are commonly issued not in consideration of money received, but of bills discounted; but the deposits, it may also be observed, are generally formed by the same means of bills discounted . . .[75]

Thornton divided the "disposeable effects" of the Bank of England into three groups: undivided profits; deposits; and bank notes issued.[76] The first increased gradually; the second fluctuated little, and that by the action of the customers rather than the bank; and it was the third item Thornton considered the only one of the three which the bank had the power to increase or decrease. If the "disposeable effects" of the bank remained the same, loans necessarily had to increase proportionately as

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[74] Ibid., p. 129. [75] Ibid., p. 134. [76] Ibid., p. 135.

gold decreased. Therefore, "the largeness of . . . loans was not the cause of the guineas going from them, as had been ordinarily supposed; it was the effect."[77]

In justification of the suspension, Thornton pointed out that the difficulty of the Bank of England in obtaining guineas was a difficulty unknown to individuals, who drew their guineas from the bank itself; and that it was necessary for the bank to maintain its notes.

The question, according to Thornton, was not whether any one holder of a note should be able to receive money for it, but "it is a question respecting all the holders of notes, as well as all other persons having a right to demand any cash payments in any quarter whatever."[78] Very few creditors were not also debtors, and although every bill might be a contract to pay money, in the general interest the parties considered their claims to be money's worth and not the "very pieces of metal."[79] The greatest danger in London, Thornton decided, was that the unsophisticated people would not trust the one- and two-pound notes, so it was important to continue paying the laboring people in money and to put the smaller denomination notes in circulation first through the higher classes.[80]

> Immediately after [the suspension] the bank extended the quantity of its notes nearly to the amount of the sum usually in circulation; and not only was credit revived, but in no long time guineas became remarkably abundant. The bank, as is commonly supposed, was replenished with them. And there is this infallible proof, that gold flowed into the country; that the course of exchange became much in favour of it.[81]

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[77] Ibid., p. 137 [78] Ibid., p. 138 [79] Ibid., p. 139.

[80] Ibid., pp. 139-40. [81] Ibid., p. 140.

Since it was impractical for the Bank of England to increase its fund of gold in times of unfavorable balance of trade or lack of confidence at home,[82] Thornton defended the Bank of England against the allegation that it should have made better provision for a fund of gold beforehand. The fact was that the bank, endeavoring to earn its necessary annual profit, found investments in bullion caused a reduction in its income far below that point. Additions to capital, instead, strengthened the bank and presumably permitted larger investments in gold in the future when it became necessary. It was not imprudence on the part of the bank that resulted in their inability to cope with the situation after being under the necessity of filling the void caused by the disappearing of country bank notes, the unfavorable balance of trade, the war, and two successive bad harvests.[83]

VII. ADVANTAGES AND DISADVANTAGES OF COUNTRY BANKS

Advantages

The country banks, according to Thornton, provided accommodation for many persons, but particularly for those engaged in commerce. Also they furnished to many people the means of saving money safely, and they provided a convenient means of making one person's accumulation available to another. Yet they were "barriers against rash speculation"[84]

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[82] See Section VIII of this Chapter.

[83] Thornton, op. cit., pp. 161-7. [84] Ibid., p. 175.

since they lent to prudent borrowers, their judgment aided by their knowledge of neighborhood bill transactions. Just as the transactions of the local traders were under the scrutiny of the country bank, the country bank itself was watched by its correspondent, the London banker; and the Bank of England, in turn, restricted the London banker.

Adam Smith had indicated that judicious banking helped a country's industry not by augmenting capital, but by rendering a greater part of that capital active and productive.[85] Thornton amended Smith's statement as follows:

> Whether the introduction of the use of paper is spoken of as turning dead and unproductive stock into stock which is active and productive, or as adding to the stock of the country, is much the same thing. The less the stock of gold is, the greater will be the stock of other kinds; and if a less stock of gold will, through the aid of paper, equally well perform the work of a larger stock, it may be fairly said that the use of paper furnishes even additional stock to the country.[86]

In answering the objection that paper credit had contributed to the high price of grain because loans to farmers had permitted them to withhold their grain from the market, Thornton admitted that there might, at certain times, have been this effect. However, it was more likely that borrowed capital was put into land, which would increase production, and therefore country bank notes added to the general supply of grain, and in so doing helped prevent a rise in its price, as well as contributing to security against scarcity.

The public shared in the profits of the country bankers by means of the revenue derived from a tax imposed on bills and notes.

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[85] See p. 52, supra.

[86] Thornton, op. cit., p. 176.

Disadvantages

The first disadvantage of country banks set forth by Thornton was the tendency of the country banks to occasionally produce "general failure of paper credit, and with it that derangement and suspension of commerce, as well as intermission of manufacturing labour."[87] Country bank notes, he said, and particularly the small denominations, circulated among many people having no means of judging the credit of the various issuers. Since the inferior ones circulated along with the better ones, therefore, even people of better judgment accepted them with the knowledge they would not hold them long. The tendency was, in times of distress, for the notes of the sound country banks to fall into almost the same discredit as the doubtful notes.

Since the country banker, during times of lost confidence, discharged many of his notes and increased his fund of gold, the Bank of England had to supply those wants of the country banker. To do so, the Bank of England had to keep enough gold to equal the notes that were extinguished, in addition to the quantity of gold necessary to meet other demands brought about by a period of distress. The loss thus incurred by the Bank of England, or the risk it took by keeping an inadequate fund, had to be considered in estimating the benefit arising from the use of country bank notes. The sum kept in gold by the issuers of the country bank notes also had to be taken into consideration in evaluating their benefit. "In other words, the capital given to the country, through the

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[87] Ibid., p. 179.

use of country bank notes, is only equal . . . to the amount of the gold which they cause to be exported."[88]

When there was an unwillingness among the people to take the country bank paper, not only did a desire for gold arise, but also a heavy demand for Bank of England notes. Thornton gave several reasons why the bank was unwilling to supply the more-than-usual demand. The Bank of England might have shared the alarm; and it had already increased its loans as gold was reduced, if it had maintained its usual quantity of notes.

> Scarcely any one reflects, that there may be a large encrease of the general loans of the banks, as well as possibly an extension of each loan to individuals, while there is a diminution of the number of bank notes; and that the amount of the notes, not that of the loans, is the object on which the eye should be fixed, in order to judge of the facility of effecting the payments of the metropolis.[89]

Thornton felt that the tendency for country bank paper to cause general failure of paper credit might decrease for three reasons. One, the Bank of England might extend its discounts in a greater degree than it had in the past;[90] two, the country bankers might learn to provide themselves with "that sort of property which is quickly convertible into Bank of England notes, and, therefore, also, into gold," and so have in their hands greater power of checking the panic; and three, those among

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[88] Ibid., p. 182.

[89] Ibid., p. 185.

[90] In a footnote at this point, Thornton commented that, "There seems to be a medium at which a public bank should aim in granting aid to inferior establishments, and which it must often find very difficult to be observed. The relief should neither be so prompt and liberal as to exempt those who misconduct their business from all the natural consequences of their fault, nor so scanty and slow as deeply to involve the general interests." Ibid., p. 183.

whom country bank notes circulated might learn a better appreciation of the various degrees of credit to which they were entitled.[91]

The second evil of the banking system presented by Thornton was the growing number of country banks issuing small notes to bearer, which occasioned a "great and permanent diminution in our circulating coin," and increased the danger that the standard would not be maintained.[92] He then detailed the evils of depreciation: price increases; inequity of contracts to be paid in money; pressure on wage earners because of lag in wage increases.

Adam Smith thought a law prohibiting the issue of small notes was alone enough remedy for the evils of banking institutions,[93] and Thornton felt it would be undesirable to permit the issue of notes under five pounds on a permanent basis. However, Thornton did feel that if public confidence increased in paper, and if only the larger and sounder banks were permitted to issue the small notes, it could prove a valuable resource.[94]

The third objection to country banks was the influence which their notes were supposed to have in raising the price of articles. Though a general increase of paper, Thornton considered, had this effect, the objection was not well founded when applied to the paper of the country banks.[95] In pursuing this discussion, Thornton concerned himself with the effect of a great issue of paper on the price of commodities, and with its

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[91] Ibid., pp. 183-9. [92] Ibid., p. 189 [93] See p. 54, supra.
[94] Thornton, op. cit., p. 191. [95] Ibid., p. 193.

influence in producing an excess of the market price above the mint price of gold. It was through the increased price of commodities that the effect on the mint price of gold was brought about.

In general Thornton believed that country bank notes were beneficial in their immediate effect, but "they leave us more exposed to an occasional evil, against which it is prudent to guard, provided we can accomplish that purpose without too great a sacrifice of present advantages."[96]

The effect of overissue of bank paper on the price of goods, and on the relation of the market price to the mint price of gold, was further considered by Thornton in his discussions of the necessity for limiting bank paper.

VIII. GOLD AND THE BALANCE OF TRADE

A favorable or unfavorable balance of trade did not continue long in one direction, in Thornton's opinion, because a constant outflow of bullion from one country indefinitely was not to be imagined, nor would the country enjoying commercial prosperity tend to increase the quantity of gold in use, but rather reduce it through extension of paper credit. To assume a continuing accumulation of debt, rather than the movement of bullion, was equally unrealistic, since a prosperous nation would want to use its growing wealth at home. The tendency toward equalization of trade was fostered not only by the unwillingness of the creditor nation to lend

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[96] Ibid., p. 190.

indefinitely, but also by the poorer nation's lack of inclination to borrow to an unlimited extent. There would, in spite of the tendency toward balance in foreign trade, occasionally arise great inequalities. (Thornton made particular reference to bad harvests as contributing to England's imbalance in trade.) Although gold was that article with which unfavorable balances of trade were balanced, it also was itself a commodity moving in trade, seeking the country in which its price was highest, and exported (or imported) for profit.

Effect of Increased Paper on Commodity Prices

Price, to Thornton, was a matter of supply and demand. The question of price was one of market power, and "a rise in the price of a scarce commodity will be more or less considerable in proportion as the article is felt to be one of more or less strict necessity."[97] The price at which any exchange took place depended on two things:

> on the proportion between the supply of the particular commodity and the demand for it, which is one question; and on the proportion, also, between the state of the general supply of the circulating medium and that of the demand for it, which is another.[98]

The steps by which an increase of paper raises prices were: traders discovered it to be easier to obtain notes for bills; this encouraged them to enlarge their speculations; they became more interested in buying than in selling; other traders became greater buyers for the same reasons; the general eagerness to buy raised prices. Conversely, a fall in the quantity of paper decreased prices; however, an exact correspondence between

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[97] Ibid., p. 194.

[98] Ibid.

the quantity of paper and the price of commodities could not be expected.[99]

Thornton admitted that sometimes an increased issue of paper was an effect of high prices; however, he insisted that, in some cases at least, it was unquestionably the increased amount of paper that was the cause.

Effect of Commodity Price Rise on Gold Prices

Concerning the price of gold, Thornton said that since gold was dear when goods for which it was exchangeable were cheap, and cheap when goods were dear, any circumstance which made goods generally dear must make gold generally cheap, and vice versa.

It would seem that if prices of British commodities rose, exports would fall (unless some compensation for the disadvantage were given to foreign purchasers); and imports would increase for the same reason--foreign goods would be more competitive. However, Thornton meant that these two effects of high commodity prices would follow only if "we suppose, what is not supposable, namely, that, at the time when the price of goods is greatly raised in Great Britain, the course of exchange suffers no alteration."[100] This was not "supposable" because decreased exports and increased imports would turn the balance of trade against England. Then the price of bills drawn on England would fall. The fall in exchange would offset the increase in commodity prices, as far as the foreigner was concerned. The British consumer continued to pay the high price.

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[99] Ibid., pp. 195-7.

[100] Ibid., p. 198.

> . . . when coin is thus rendered cheap, it by no means follows that bullion is rendered cheap also. Coin is rendered cheap through its constituting a part of our circulating medium; but bullion does not constitute a part of it. Bullion is a commodity, and nothing but a commodity; and it rises and falls in value on the same principle as all other commodities.
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> . . . an encrease of paper, supposing it to be such as to raise the price of commodities in Britain above the price at which, unless there is some allowance afforded in the course of exchange, they will be received in foreign countries, contributes to produce an excess of the market price above the mint price of gold, and to prevent, therefore, the introduction of a proper supply of it into the Bank of England, as well as to draw out of its coffers that coin which the directors of the bank would wish to keep in them.[101]

Mint Price and Market Price of Gold

It was natural to suppose that if the bank paid a high price for gold, and the bank was the main English purchaser, that price formed the current English price and would attract gold and keep it, causing the relatively cheap goods to go abroad. However, the bank bought the gold to turn into coin, which then became a part of a circulating medium along with paper. If the paper became cheap, Thornton said, the coined gold would

> partake in the cheapness of the paper; that is, it will buy, when in the shape of coin, a smaller quantity of goods than it will purchase when in the form of bullion. . . . In proportion as the difficulty of collecting, melting, and sending abroad the gold coin is augmented (and it encreases as the quantity of coin diminishes), the difference between the mint and market price of bullion will become more considerable, supposing the demand for gold in foreign countries to continue. Thus it is through the interchangeableness of gold coin with paper, that gold coin is made cheap in England; or, in other words, that goods, in comparison with gold coin, are made dear. The goods which

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[101] Ibid., pp. 199-200.

> are dear remain, therefore, in England; and the gold coin, which is cheap (for the bank is indisposed to buy it, on account of the loss sustained on each coinage), goes abroad.[102]

Thornton admitted that there was ground for Dr. Smith's idea that decreasing the quantity of paper would tend to cure the evil. However, he pointed out certain inaccuracies in Smith's doctrine.[103] Smith had said that the amount of paper money that could "easily" circulate could never exceed the value of the gold and silver which would have circulated in its place.[104] Thornton objected that Smith led his readers to believe that a difference between the mint price and the market price of gold arose from an excess of paper forced into circulation. He also was critical of Smith for leaving an unfavorable balance of trade out of his consideration.

> . . . an unfavourable course of exchange, which the export of our gold would cure, will, in many cases, tend much more to depreciate our paper, and to produce a rise in the nominal price of articles, than the want of the usual interchange of gold for paper at home. Our coin itself . . . when paper is depreciated, passes not for what the gold in it is worth, but at the paper price; though this is not generally observed to be the case. It is the maintenance of our general exchanges, or, in other words, it is the agreement of the mint price with the bullion price of gold which seems to be the true proof that the circulating paper is not depreciated.[105]

Unfavorable Balance of Trade

What Thornton considered a fair statement of the situation at the time of a very unfavorable balance of trade was represented by a failure

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[102] Ibid., pp. 149-50.

[103] Ibid., p. 150.

[104] See p. 48, supra.

[105] Thornton, op. cit., pp. 191-2.

of harvest, and the importation of corn under circumstances when there was not the means of supplying at the time enough goods in return, or the available goods were not in sufficient demand abroad to cancel the unfavorable balance. Gold, therefore, had to be used to fill the gap. To prevent the creditor country from demanding any payment in gold, it would be necessary for goods to be very cheap. It would therefore seem that the bank should decrease its paper to try to prevent the settlement of the unfavorable balance in gold.

However, Thornton brought up other considerations which Smith left out of his discussion. For example, whether the bank in trying to accomplish the low price might not so distress trade and discourage manufactures as to impair "those sources of our returning wealth to which we must chiefly trust for the restoration of our balance of trade."[106] Further, any favorable effect on the exchange from the limitation of paper was not immediate and might be sufficiently delayed as to be ineffective for the problem. Thornton agreed with Smith that it was not only changes in the amount of Bank of England paper that affected the gold, but changes in their paper together with other paper of the country. The bank in trying to effect the reduction of its paper might destroy much of the circulating country bank notes and other paper.

> . . . it may, in that case, have to supply gold sufficient to fill the whole void, perhaps more than the whole void, which it has created; for it may be called upon to furnish large additional sums which may forthwith be hoarded in consequence of the alarm thus occasioned. Hence, even though it should encrease the supply of gold

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[106] Ibid., p. 152.

> from abroad; it may augment, in a far greater degree, the demand for it at home. For this reason, it may be the true policy and duty of the bank to permit, for a time, and to a certain extent, the continuance of that unfavourable exchange, which causes gold to leave the country, and to be drawn out of its own coffers: and it must, in that case, necessarily encrease its loans to the same extent to which its gold is diminished.[107]

Concerning whether or not the exported gold would return, Thornton advised that in order to assure an improvement in the exchange, "we have only to suppose the present degree of the pressure for payment of goods imported to abate."[108] The debt itself did not necessarily have to decrease.

The gold remitted to the creditor country is in turn used for remittance, but would this account for the use of all the additional gold? One suggestion Thornton made was that in times of political uncertainty a greater quantity of gold is wanted: and he further suggested that whatever event disturbed trade sufficiently to change the balances of trade seemed likely to cause also an increase in the demand for gold, since confidence was an important factor in that demand.[109] It was on the degree of confidence and on the size of the balance concerned that the quantity of bullion transported depended. Unusual circumstances might prevent the return of gold for a time, but

> it may, however, be safely affirmed, that when the main sources of a country's wealth are unimpaired; when its population, its industry, its manufacturing and trading capital, its general commerce, its credit, its colonial possessions, its political strength and independence, its laws and constitution remain; and when, moreover, its paper is confined within its accustomed bounds; the absence of its gold, more especially if it be the obvious consequence of one or

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[107] Ibid., p. 152. [108] Ibid., p. 154. [109] Ibid., pp. 154-5.

more unfavourable seasons, is an evil which is likely neither to be durable, nor in any respect very important.[110]

Effect of Suppression of Bank Notes on Trade

Thornton put the question whether the pressure caused by a scarcity of bank notes tended to render the importation of bullion a more profitable speculation. His answer was that, since in general gold imported into a country will be in proportion to the excess of exports over imports, the point that had to be examined was what effect the suppression of bank notes would have on the quantity of exports or imports. In this connection, it seemed reasonable, he said, that when manufacturers (or those to whom they sold) were under pressure they would try to alleviate that pressure by selling goods to raise money; that that would tend to lower prices at home; and low prices at home might tempt merchants to export for a better market. However, Thornton then had three observations to make.

First, the eagerness to sell would be accompanied by a proportionate reluctance to buy.

> The sales of the manufacturer are, therefore, suspended; but though these are stopped, his daily and weekly payments continue, provided his manufacture proceeds. . . . the general state of credit is such, that he is not only not able to borrow, in order to supply his extraordinary need, but . . . he is also pressed for a prompter payment than before of all the raw materials of his manufacture. Thus the manufacturer, on account of the unusual scarcity of money, may even, though the selling price of his article should be profitable, be absolutely compelled by necessity to slacken, if not suspend, his operations. To inflict such a pressure on the mercantile world as necessarily causes an intermission of manufacturing labour, is

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[110] Ibid., pp. 158-9.

> obviously not the way to increase that exportable produce, by the excess of which, above the imported articles, gold is to be brought into the country.[111]

Second, "that very diminution in the price of manufactures which is supposed to cause them to be exported, may also, if carried very far, produce a suspension of the labour of those who fabricate them."[112] It was in this connection that Thornton expressed his idea of the relationship of the falling of prices and the falling of wages.

> The tendency . . . of a very great and sudden reduction of the accustomed number of bank notes, is to create an unusual and temporary distress, and a fall of price arising from that distress. But a fall arising from temporary distress, will be attended probably with no correspondent fall in the rate of wages; for the fall of price, and the distress, will be understood to be temporary, and the rate of wages, we know, is not so variable as the price of goods.[113]

Third, "a great diminution of notes prevents much of that industry of the country which had been exerted from being so productive as it would otherwise be."[114] The manufacturer found himself, under those circumstances, with idle machinery and increasing inventories.

Thornton did not wish to give the impression that a desirable and permanent decrease in prices could be accomplished by a permanent decrease in the quantity of Bank of England notes. He made the following statement of why he felt this could not be accomplished:

> The general and permanent value of bank notes must be the same as the general and permanent value of that gold for which they are exchangeable, and the value of gold in England is regulated by the general and permanent value of it all over the world; and, therefore, although it is admitted that a great and sudden reduction of bank notes may

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[111] Ibid., p. 118.

[112] Ibid.

[113] Ibid., p. 119.

[114] Ibid.

> produce a great local and temporary fall in the price of articles (a fall, that is to say, even in their gold price, for we are here supposing gold and paper to be interchanged), the gold price must, in a short time, find its level with the gold price over the rest of the world. The continuance of the great limitation of the number of bank notes would, therefore, lead either, as has already been observed, to the creation of some new London paper, or possibly to some new modes of economy in the use of the existing notes: the effect of which economy on prices would be the same, in all respects, as that of the restoration of the usual quantity of bank notes. What seems most probable is, that the continuance of any great limitation of the number of bank notes would lead to the transfer of the present cash payments of London to some other place or places in which the means of effecting payments should not be obstructed through the too limited exercise of that exclusive power of furnishing a paper circulation with which the Bank of England has, by its charter, been invested.[115]

Having discussed those situations which might prevent an increase in importation of gold through the increase of exports, Thornton addressed himself to the possibility of acquiring more gold by limitation of imports. It might seem logical that the limitation of bank notes, which would limit the means of payment of importing merchants, and hence would lessen imports, would have a desirable effect in times of unfavorable balance of trade. However, no one would so wish to limit the importation of needed corn, nor of articles destined for future export, nor of raw materials for the manufacture of exportable articles.

Limitation of credit might result in the British merchant's selling abroad at short credit and importing at long credit; however, "a very severe pressure is <u>sure</u> to produce a suspension of manufactures. . . . And <u>very extraordinary</u> suppression of bank notes must produce distrust abroad."[116] Hence, though there might be some possibility that a

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[115] <u>Ibid.</u>

[116] <u>Ibid.</u>, p. 122.

moderate restriction of paper could have some interim beneficial effect on an unfavorable balance of trade, "a sudden and violent reduction of bank notes must tend . . . to prevent gold from coming into the country rather than to invite it."[117]

IX. NECESSITY FOR THE LIMITATION OF PAPER ISSUES

Criticisms of Smith on Excessive Paper

Thornton criticized Adam Smith for treating "in a particularly defective and unsatisfactory" manner, the subject of "the tendency of an excessive paper circulation to send gold out of a country, and thus to embarrass its banking establishments."[118] Smith blamed the Bank of England for issuing too much paper, the excess of which continually returned to be exchanged for gold and silver. Further, Smith felt that any constant difference between the market price and the mint price of gold (whether above or below) was the effect of something in the state of the coin.[119] A seigniorage would, Smith said, diminish or eliminate the profit of melting down new coin. Thornton was particularly critical of Smith for not mentioning, in this connection, either the fall in the rates of exchange or the high price of goods (which produced the fall in the exchange rates). Smith considered the English coin as going abroad simply in consequence of excess circulation at home, since it would not be allowed to lie idle.[120]

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[117] Ibid.

[118] Ibid., p. 200.

[119] See p. 43, supra.

[120] See p. 49, supra.

Thornton, on the other hand, wanted to establish that English coin did not merely leave the country because no use could be found for the additional circulating medium at home, but that

> every encrease of paper has been represented as enhancing the price of goods, which advanced price of goods affords employment to a larger quantity of circulating medium, so that the circulation can never be said to be over full. This advanced price of goods is the same thing as a reduced price of coin; the coin, therefore, in consequence of its reduced price, is carried out of the country for the sake of obtaining for it a better market.[121]

One of the results of Smith's argument, Thornton pointed out, was that one would be led to assume that the expense of restoring the gold that had flowed away would be only the expense of collecting and transporting it; Thornton took a contrary view--that in order to bring back the gold, "the expence not only of importing it may be to be incurred, but that also of purchasing it at a loss, and at a loss which may be either more or less considerable."[122] If that loss were very great, a discount between the coin and paper of the country might be unavoidable.

In criticism of Smith's statement that banking companies would find, if they issued too much paper, that the excess would continually return upon them for payment,[123] Thornton countered that it could not hold true in the case of many banks issuing paper in the same district, since it would be impossible to say whose paper made up the excess.[124] The excess had to be general, and would be counteracted not only by the charge of transporting gold but by all the other charges and risks issuers

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[121] Thornton, op. cit., p. 205.

[122] Ibid., p. 205.

[123] See p. 49, supra.

[124] Thornton, op. cit., pp. 206-7.

of country bank notes were subject to "not to mention the difficulty of finding a channel through which a quantity of paper much larger than common can be sent by the country bank into circulation."[125] Where Smith said that the excessive circulation of country bank paper returned to the banks to be exchanged for gold and silver, Thornton added that it returned to be exchanged not only for gold and silver, but alternatively for bills on London.[126]

Effect of Limitation of Bank of England Paper

Unrestrained issuance of country bank notes, said Thornton, was checked by the fact that country bankers considered themselves to be obligated to grant bills on London--to exchange Bank of England paper for their notes. No material increase of all the paper in the country was possible while the facility of borrowing in London remained the same. The fact that country paper was exchangeable for Bank of England paper tended to equalize them, not because the London paper decreased to the low value of the country paper (because of its not being limited by the issuers), nor because each tended toward the value of the other, but because of a tendency of the country paper to assume the high value the London paper bore (because it was restricted by the issuers). However much the issuers of country paper failed to limit the quantity by moderation, the paper was "no less effectually limited through the circumstance of their being compelled by the holders to exchange as much of it as is excessive for the London paper which is limited."[127]

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[125] Ibid., p. 207. [126] Ibid., pp. 207-8. [127] Ibid., p. 210.

> Thus, therefore, the limitation of the supply of the single article of London paper, of which, however, we are taking for granted that the demand continues the same, is the means both of sustaining the value of London paper, and also of sustaining the value as well as limiting the quantity of the whole paper of the country.[128]

When Thornton said that the exchangeability of country paper for London paper limited the country paper in an equal degree, what he meant was not that one uniform proportion was maintained between the quantity of the London paper and of the country paper, but only that "the quantity of the one, in comparison with the demand for that one, is the same, or nearly the same, as the quantity of the other in proportion to the call for the other."[129] Thornton wrote, further

> It is commonly and very naturally supposed, that it was the exchangeableness of the country paper for guineas which used to sustain its value. This, however, was not the case: its value was sustained by its exchangeableness for Bank of England notes. The country paper bore always and necessarily the same value as the notes of the Bank of England; and not always or necessarily the same value as the gold contained in the coin, for which the country paper was exchangeable. It is true, indeed, that the quantity of gold in our coin had an influence on the value of country paper. It had, however, only an influence which was imperfect and indirect. It served to dictate to the directors of the Bank of England what was that quantity of paper which they might properly emit. For, if at any time the exchanges of the country became so unfavourable as to produce a material excess of the market price above the mint price of gold; the directors of the bank, as appears by the evidence of some of their body given to parliament, were disposed to resort to a reduction of their paper as a means of diminishing or removing the excess, and of thus providing for the security of their establishment. . . . This interest in the prevention of any great excess of the market price above the mint price of gold was in no degree felt by the country banker.[130]

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[128] Ibid., p. 211.

[129] Ibid., p. 215.

[130] Ibid., p. 218.

Certain assumptions had to be made, according to Thornton, for the paper of the Bank of England to maintain its own value and also to maintain the value and restrict the quantity of the general paper of the country. First, Bank of England notes were assumed to have no circulation beyond London; second the quantity of Bank of England notes did not change; third, payments in the district remained the same; and fourth, the same quantity of circulating medium as before was sufficient to effect the same payments. These four assumptions in some respects differed from the real situation.

Regarding the first of the assumptions, Bank of England notes (in addition to coin) were the only circulating medium around London, while a certain amount of those notes did circulate in the country, along with country paper and coin. If an additional amount of Bank of England paper took the place of country notes, or of coin, more Bank of England notes would have to be issued just to maintain the same means as before of making London payments, and to effect the same limitation as before of the total quantity of circulating paper in the country.

Concerning whether or not the quantity of Bank of England notes had remained the same (the second assumption), Thornton analyzed the amounts in circulation and pointed out that his results differed greatly from those of Mr. Boyd, who had examined the same subject. Boyd had said "to the augmentation of bank paper not convertible into specie, more than to any other cause, is to be ascribed the high price of provisions."[131]

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[131] Ibid., p. 210.

Boyd and Thornton agreed that the amount of Bank of England notes in December 1800 were about fifteen and one-half million pounds. Comparing this figure with their lowest amount (February 27, 1797--a little more than eight and one-half million pounds) Boyd showed an addition of nearly four-fifths; comparing the 1800 figure with an average for three years before the suspension (nearly twelve million pounds) the addition was shown to be three-tenths. However, Thornton pointed out that about two million pounds should have been deducted from the 1800 figure, for purposes of comparison, because it represented one- and two-pound notes which took the place of guineas. Therefore, Thornton concluded that the true comparison of the amount of Bank of England notes circulating on the average for three years before the suspension, and those circulating in December 1800 (less the new one- and two-pound notes) showed them to be nearly the same.

In discussing the third assumption--that payments in the district remained the same--Thornton said that one might infer that pressures in London would result in the drawing back into London of a large part of the Bank of England notes circulating in the country, or that many of the London payments would be transferred to the country. Actually, Thornton argued, pressure in London, if sudden and severe, would cause a panic that would result in the decrease of country bank notes, with gold and Bank of England paper filling the void. Also, rather than London payments moving to the country, there had been a tendency for more and more money transactions that had been handled in the country to transfer to London.

War, however, because of the fact that it increased the price of goods, considerably increased London payments.

> . . . it ought to be allowed to lift them up to that point to which they can be raised consistently with the general maintenance of our exchanges; and that, so far as they permanently stand above that point, it is the enlarged and too great quantity of notes of the Bank of England which is to be considered as the cause of the high price of goods, rather than the high price of goods which is to be taken to be the cause of the enlarged quantity of notes of the Bank of England.[132]

With further reference to cause and effect between the price of goods and the quantity of notes, Thornton observed that it seemed proper "to charge too much paper with being the cause when the price of bullion is rendered permanently higher than that of coin, and when otherwise, to consider it rather as an effect."[133] By "permanently" Thornton meant not caused by passing events.

> In general it may, perhaps, also be assumed, that an excessive issue of paper has not been the leading cause of a fall in the exchange, if it afterwards turns out that the exchange is able to recover itself without any material reduction of the quantity of paper.[134]

The fourth and last of the assumptions was that the same quantity of circulating medium as before was sufficient to effect the same payments. In that regard, Thornton showed that a small addition to the quantity of notes might be sufficient to effect a comparatively large number of additional payments; therefore, the same number of notes had probably sufficed for more than the same number of payments.

Thornton's purpose in discussing the effect of the quantity of Bank of England notes was not to indicate that an exact estimate could be

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[132] Ibid., p. 221. [133] Ibid. [134] Ibid.

made of its effect on prices of commodities or on the market price of bullion, but rather to show that all the circumstances discussed made it impossible to make such estimates with confidence. However, the lack of correlation between changes in the quantity of Bank of England notes and price changes should not be taken to mean that increases or decreases in the quantity of such paper had no effect on the exchanges or on prices. Counteracting circumstances prevented effects from being proportional, or immediate. "A limitation of Bank of England paper affects prices in a great measure by its operation on the state of commercial confidence; and this influence on the minds of men will be far from uniform."[135]

Thornton's Answers to Objections to His Doctrine

Thornton suggested what objectors might say about his doctrine that the Bank of England should limit the issuance of its paper, then answered the objections raised. It was said by some that the increase of Bank of England paper was the effect and not the cause of increases in prices of commodities, and that to increase Bank of England notes only in return for safe and real bills is simply to exchange one species of paper for another. It was further said that depreciation of paper arose from lack of confidence rather than from increases in quantity. The evil of an unfavorable exchange, an objector might say, resulted only from an unfavorable balance of trade, and the means of prevention was an increase in industry; and the way to encourage industry was by a liberal issue of paper. The objector might continue

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[135] Ibid., p. 224.

> The balance of trade will not fail to be rendered favourable by that abundance of exportable articles which the labour thus excited must necessarily create. The course of exchange will, consequently, be supported; all excess of the market price above the mint price of gold will be prevented; and thus the value of our paper will be sustained by the very means of its encrease.

Those who saw no tendency for Bank of England notes to bring about increases in commodity prices, Thornton suggested, were bound to prove one of two propositions: first, that even the most enormous addition to paper would not produce such consequences; or, second, that the bank need not limit its issue because the paper had a natural tendency to limit itself.

If there were a tremendous addition to paper, who would hold it and why? Here Thornton reminded his readers that the amount of circulating medium that can be employed without a fall in its value "is to be estimated not merely by its proportion to the quantity of trade or of payments, but also by the relative rapidity of its circulation."[137] The value of Bank of England notes, according to Thornton, "will be found to depend not so properly on their credit as on their quantity."[138] It was true that in times of alarm gold was more highly regarded than Bank of England paper, but only a small part of the community were hoarders of gold, and they preferred gold not only to paper, but also to land and other property. The credit of bank notes, so far as it affects their value, Thornton asserted, was always good, and the common fluctuations of their price in exchange for goods or bullion, "are not, in the smallest

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[136] Ibid., p. 231. [137] Ibid., pp. 232-3. [138] Ibid., p. 233.

degree, to be referred to variations in the degree of confidence placed by Englishmen in the good faith or the solidity of the Bank of England."[139] The quantity of Bank of England paper a person would hold was that quantity necessary for the payments he had to make. If his amount of payments did not change, he would not hold an excess of notes, but would offer them on loan, even at reduced interest rates. If merchants owned the new paper, it would still have to be admitted that "the larger quantity of circulating medium will cause goods to rise in value, and will thus find for itself employment."[140]

Thornton conceived of only two ways in which the additional paper could be disposed of: first, used to transfer an increased quantity of articles which, it would have to be assumed, the new paper itself created; or, second, to transfer the same articles at a higher price.

In the first case, the new articles could either come from abroad or be produced at home by new industry. However, heavy issue of paper would bring goods from abroad only if it enabled gold or additional commodities, created at home, to be exported in payment.

Would the great increase of notes increase production at home? When the Bank of England increased its paper, it increased also its loans to individuals, who felt encouraged to expand with the additional capital, not considering that their increase might, to some extent, be another's decrease. Thornton remarked that there would be a limited number of idle persons whom the new capital could employ, so if the increase in notes

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[139] Ibid., pp. 233-4.

[140] Ibid., p. 235.

continued the laborers put to work would be taken from other useful occupations. From this it might be inferred, he said, that the benefits of increased paper were not boundless, and that "a liberal, or, at most, a large encrease of it, will have all the advantageous effects of the most extravagant emission."[141] Since no immediate effect on total quantity of goods resulted from an unusual increase in paper, a rise in commodity prices would occur. To the extent that the increased issue produced greater demand for goods and labor, additional industry would be created, but prices would also rise. The price rise in itself was stimulating, because profits appeared higher. Since for a time the cost of goods might rise but not the price of labor, some increase in commodities might come about because of the hardship of forced savings imposed on labor.[142]

"Paper possesses the faculty of enlarging the quantity of commodities by giving life to some new industry. It has, however, been affirmed," said Thornton, "that the encrease of industry will by no means keep pace with the augmentation of paper."[143] Thornton mentioned that the notes of John Law's bank seemed for a while to have a powerful influence in increasing the demand for labor and increasing the property of the kingdom.

Since a very great excess of Bank of England paper would not be long retained in any quarter, and since a great increase of it could not create enough new capital to furnish employment for all the new paper,

> there remains, therefore, no other mode of accounting for the uses to which the additional supply of it can be turned, than that of supposing it to be occupied in carrying on the sales of the same, or nearly

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[141] Ibid., p. 236. [142] Ibid., p. 239. [143] Ibid.

> the same, quantity of articles as before, at an advanced price the cost of goods being made to bear the same, or nearly the same, proportion to their former cost, which the total quantity of paper at the one period bears to the total quantity at the other.[144]

Further concerning the limitation of notes, Thornton stated:

> The variations in the value of bullion, as compared with that of the circulating medium, serve . . . to detect and restrain that too great emission of notes to which all countries would otherwise be prone; and . . . operations of the exchange . . . are the means by which every bank is compelled to make the value of its paper conform itself to the ancient standard.[145]

Concerning the objection that the evil of an unfavorable exchange arose only from an unfavorable balance of trade, Thornton countered that the movement of gold depended on "the quantity of circulating medium issued; or . . . on the balance of trade, if that balance is admitted to depend on the quantity of circulating medium issued."[146]

The rise in the prices of goods in Great Britain caused a decrease in foreign demand for them, unless the rate of exchange compensated the foreigner, so too great issuance of paper would cause an unfavorable balance of trade, and an unfavorable exchange.[147]

In answer to the objection that increasing Bank of England notes only in proportion to real bills offered for them would be only to exchange one species of paper for another, Thornton reiterated that the effect of paper credit on prices depended not only on the quantity of notes, but also on the rapidity of their circulation.[148]

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[144] Ibid., p. 241. [145] Ibid., p. 249. [146] Ibid., p. 248.
[147] Ibid., p. 250. [148] Ibid., p. 242.

It was obvious to Thornton that lending simply in proportion to the property of those who desired to borrow could not be safe because borrowers might be too numerous. Concerning the recommendation that lending be done only on real bills, Thornton reminded his readers that they could be multiplied to a great extent, particularly by the extension of the customary length of credit. Neither did it seem to Thornton that it would be safe to let borrowing take a natural course and be limited by the borrowers, whose individual interests were not the same as those of the bank, partly because of the artificial state brought about by the usury law. If it were not for the restriction imposed by the usury law, the Bank of England could "at all seasons, sufficiently limit its paper by means of the price at which it lends . . . ."[149]

For all the reasons mentioned, Thornton supported the determination of the directors of the Bank of England to regulate the loans granted by them each week, because there was no other way to accomplish the limitation.

> The variations in the amount of loans fail of producing exactly correspondent variations in the amount of paper, in proportion as the gold of the bank fluctuates. But the regulation being a weekly one, opportunity is afforded of correcting this attendant imperfection before any material evil can have arisen.
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> To limit the total amount of paper issued, and to resort for this purpose, whenever the temptation to borrow is strong, to some effectual principle of restriction; in no case, however, materially to diminish the sum in circulation, but to let it vibrate only within certain limits; to afford a slow and cautious extension of it, as the

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[149] Ibid., p. 254.

> general trade of the kingdom enlarges itself; to allow of some special, though temporary, increase in the event of any extraordinary alarm of difficulty, as the best means of preventing a great demand at home for guineas; and to lean to the side of diminution, in the case of gold going abroad, and of the general exchanges continuing long unfavourable; this seems to be the true policy of the directors of an institution circumstanced like that of the Bank of England. To suffer either the solicitations of merchants, or the wishes of government, to determine the measure of the bank issues, is unquestionably to adopt a very false principle of conduct.[130]

X. HENRY THORNTON AND THE REPORT OF THE BULLION COMMITTEE

The Bullion Committee

On the initiative of Francis Horner, a member of the House of Commons, the House appointed the Bullion Committee on February 19, 1810, to inquire into the cause of the high price of bullion. Horner headed the committee and was assisted mainly by Henry Thornton and by William Huskisson.[131] All three collaborated in the preparation of the Report of the Bullion Committee, issued August 12, 1810.

The Bullion Committee concerned itself mainly with the price of bullion; the extent to which the bank, during the suspension of its cash payments, should relate its credit policy to the exchange and bullion market; and when specie payments should be resumed. The position of the

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[130] Ibid., pp. 238-9.

[131] Norman J. Silberling, "Financial and Monetary Policy of Great Britain During the Napoleonic Wars," Quarterly Journal of Economics, XXXVIII (May, 1924), 430; Frank W. Fetter, "The Bullion Report Re-examined," Quarterly Journal of Economics, LVI (August, 1942), reprinted in T. S. Ashton and R. S. Sayers, Papers in English Monetary History (Oxford: The Clarendon Press, 1953), p. 67.

Report of the Bullion Committee was that "since the Restriction, currency policy had had a substantial but quantitatively undetermined influence on exchange rates."[152] The Report said that, as long as the Restriction continued,

> the price of Gold Bullion and the General Course of Exchange with Foreign Countries, taken for any considerable period of time, form the best general criterion from which any inference can be drawn, as to the sufficiency or excess of paper currency in circulation; and that the Bank of England cannot safely regulate the amount of its issues, without having reference to the criterion presented by these two circumstances.[153]

Concerning specie payments, the Committee recommended that resumption take place two years from the date of the report, regardless of whether or not England were at war. The law existing at the time had provided for resumption six months after peace. Fetter believed that Horner was perhaps the principal advocate of resumption in two years.[154] Henry Thornton, writing in 1804, in his manuscript notes on Lord King's publication,[155] expressed the opinion that it was not then expedient to determine when the Bank Restriction Bill should be ended. He did feel, though, that it should cease "in a moderate time after the termination of the war."[156] During the war, the Bank of England, he maintained, should be

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[152] Fetter, op. cit., p. 71.

[153] Ibid. [154] Ibid., p. 72.

[155] Lord King, Thoughts on the Effects of the Bank Restriction, second edition enlarged, including some remarks on the coinage (London: 1804). The copy of King's publication on which Thornton's manuscript notes are found is in the Goldsmiths' Library of the University of London. Hayek felt there was no reasonable doubt of Thornton's authorship of the notes. Thornton, op. cit., p. 312.

[156] Thornton, op. cit., p. 321.

protected from demands for gold for hoarding; however, it "ought not to be protected against that demand for Gold which results from the long continuance of an unfavourable Exchange."[157] In the two speeches Thornton made after opening of debate in the House of Commons on the Report of the Bullion Committee (May 7, 1811 and May 14, 1811) his major emphasis was elsewhere.

Speech on May 7, 1811

The May 7, 1811, speech delivered by Thornton was directed mainly toward a discussion of the regulation of the paper of the Bank of England, with reference to the price of bullion and the state of the exchanges. The bank and the Bullion Committee were in disagreement on this point. "The Committee affirmed, that the quantity of paper had an influence on the price of Bullion, and the state of the Exchanges; all the Directors of the Bank who had been examined, affirmed that it had not."[158]

In these speeches, Thornton reiterated to some extent doctrines he had expounded in the Paper Credit. Assuming, which Thornton felt no one could deny, that every increase of paper tended to lower its own value, or to increase the value of commodities for which it was exchanged, then an increase in paper must also affect the state of the exchange and raise the price of bullion.

In explaining to the House of Commons his idea of the influence of the balance of payments, Thornton approached the discussion by assuming

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[157] Ibid.

[158] Ibid., p. 327.

three situations: first, that there were no laws forbidding the melting and exportation of coin, or limiting the rate of interest, or protecting the Bank of England against cash payments; second, the actual case of England before the suspension of cash payments; and third, the case at the time of his address.

In the first, or natural, state, Thornton showed that there would be a reduction in England's circulating medium under the then existing conditions of their trade.

> . . . a reduction which would tend to bring down our prices to the level of the prices which similar commodities, allowing for all expenses of transportation, were found to bear in exchange for gold in the general market of the world.[159]

In the second situation he was commenting on, in which there were laws against the melting and exportation of coin and limiting the rate of interest to five per cent, and in which the bank was paying in cash, the effect would resemble the effect in case one, but not to the same degree. There would be a demand for cash; and some gold, though the law would be an obstacle, probably would go abroad and increase the circulating medium of foreign countries while decreasing that of England. The bank, experiencing a drain, would contract its issues to some extent.

> . . . some difficulty in effecting the limitation would arise out of the necessity under which the Bank would consider itself to be placed of still continuing to lend at only five per cent. It was only by limiting its paper that it could maintain its own cash payments. The reduction would undoubtedly be an evil, but it would be an evil to be balanced against another evil otherwise to be incurred, that of stopping payment, and ceasing to abide by the standard of value which the King and the law had prescribed.[160]

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[159] Ibid., p. 331.

[160] Ibid., p. 332.

As in the first case, therefore, there would be, in this second case, a reduction of the circulating medium, which would tend to limit the evil of the unfavorable exchange resulting from an unfavorable balance of payments.

Then, Thornton took up the third, or then existing, case. The Bank of England had been protected against the need to make cash payments, and thought, Thornton indicated, that it might be more liberal than it would have been otherwise. Although the exchange had become unfavorable, it had continued a gradual increase in its notes, "appearing to themselves not to increase, but merely to maintain the existing prices; and they hoped that the evil of the unfavourable exchange would correct itself."[161]

The limitation of paper in February, 1797, as Thornton had stated in his evidence at that time, was sudden and very great, he reminded the House of Commons, and arose from a drain not caused by an unfavorable exchange, but by fear of invasion. Thornton still, in 1811, was of the opinion that the sudden decrease of paper at the time of the restriction had increased the alarm. That limitation did show, however, the habit of the Bank of England of reducing its issues when there was a drain on its gold.

Thornton called the attention of the House of Commons to the effect of the rate of interest:

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[161] Ibid., p. 333.

> If the principle adopted by the Bank was that which they professed, of lending to the extent, or nearly to the extent, of the demand made upon them by persons offering good mercantile paper, the danger of excess was aggravated in proportion to the lowness of the rate of interest at which discounts were afforded; and one cause . . . of the somewhat too great issues of the Bank, during the present war, had been the circumstance of their lending at five per cent., when rather more than five per cent. might in reality be considered as the more current rate paid by the merchants.[162]

Putting it more succinctly, Thornton asserted:

> . . . that an increase of the quantity of paper tended to diminish its value; and a reduction of its quantity, to improve it;--that when the quantity became too great, a drain of cash arose; that this drain was checked by a limitation of paper;--and that the excess, and consequent drain, were most likely to accrue when any circumstances rendered the rate of interest taken, less than the current and actual rate at the time in the common market.[163]

Based on the doctrines he had set forth to the House of Commons, Henry Thornton, in his first speech on the Report of the Bullion Committee, recommended that, in the absence of natural correctives, the "general and permanent" state of the exchange should be the index of excess paper.[164]

Speech on May 14, 1811

Thornton's second speech on the Report of the Bullion Committee was undertaken mainly to answer the speech of Vansittart, who had surprised Thornton by omitting any reference to a limitation of paper in his listing of means of improving the state of the exchange. Thornton went on, then, to criticize the renewal of the Restriction Act on the grounds of an unfavorable exchange, saying that that was not the principle on which the first act had been passed and he was doubtful that it was a

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[162] Ibid., p. 335. [163] Ibid., pp. 336-7. [164] Ibid., p. 343.

sufficient cause. It was a run on the banks caused by fear of invasion that had caused the original passage of the act. "To extend the suspension because the exchange was unfavourable," Thornton maintained, "was to adopt a new and dangerous course."[165] He reminded the House that he had on one occasion remarked on the insufficiency of that motive for renewal, without particularly attracting attention. He then advised that "especially since they were resolved to continue the suspension," that the House should "look well to the general principles on which both they and the Bank proceeded, and not to consider themselves as debating merely on a temporary measure."[166]

Thornton was fearful that the subserviency of the bank to the "purposes of war, and the convenience of the State" during the suspension of cash payments might endanger the independance of the Bank of England.[167]

He did not agree, Thornton said, with the theory that the movement of gold depended wholly on the balance of trade, and that theory only served to support the dangerous doctrine that

> the fact of the disappearance of our guineas attended with the highest imaginable price of gold, was no indication of an excess of paper or of a depreciation of it, but was simply an evidence of an unfavourable balance of trade; and the only remedy was generally to promote national industry and oeconomy. It might, indeed, be imagined by some, that according to this view of the subject, even additional issues of paper would operate as a remedy; for it might be said that an increased emission of it tended to encourage manufactures, an augmented quantity of manufactures supplied the means of enlarging our exports, and more extended exports improved the balance of trade; and thus an increased issue of paper might be assumed to be the means of rectifying the exchange, instead of prejudicing it. This was exactly the course of argument into which the Noble Lord over the

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[165] Ibid., p. 348. [166] Ibid. [167] Ibid.

> way (Lord Castlereagh) appeared in one part of his speech to be running. It was an error to which he himself had once inclined, but he had stood corrected after a fuller consideration of the subject.[168]

Their paper, he said, had become less valuable, by nearly twenty per cent, than the gold contained in the coin, and the coin no longer could circulate interchangeably with it, but went abroad, "because there was a profit of nearly twenty per cent. on the transmission."[169] Something was to be conceded, Thornton admitted, on the ground of "an unfavourable state of trade and a bad harvest, as well as on account of large drafts in discharge of the foreign expenditure of Government,"[170] and continued:

> The state of our trade and foreign expenditure seemed not likely to improve materially. The exchange could not be corrected, as heretofore, by the transmission of specie. The cautious limitation of our paper was, therefore, a principle to which every consideration of prudence should lead us to resort.[171]

Also in the second speech, Thornton clarified the attitude of the members of the Bullion Committee concerning the monetary standard:

> The Bullion Committee had never intended to say, that no deviation from the standard of our coin, however small, ought to be tolerated. They were not in this respect the theorists which they were sometimes represented to be. They, indeed, affirmed bullion to be the standard, and the more the subject was examined, the more did it appear that we had either this standard or none; but they allowed of a moderate departure from it. Nothing human was perfect. . . . to confound the little differences between the market price and mint price of bullion before 1797, with the great difference at present, was most unfair. The difference, it was true, might be said to be only in degree, but degree was every thing in this case . . .[172]

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[168] Ibid., p. 353. [169] Ibid., p. 354. [170] Ibid.

[171] Ibid. [172] Ibid., pp. 357-8.

It had been these same matters, which occupied the attention of the Bullion Committee, which concerned David Ricardo and occasioned his first appearance in print in 1809.

CHAPTER V

DAVID RICARDO AND OTHERS

The contributions to monetary theory of the widely known David Ricardo were made over a relatively short time--1809 (when Ricardo was thirty-seven years old) to his death in 1823. Fourteen years was, indeed, a brief period for the promulgation of such influential ideas. This highly successful businessman's interest in economics had been stimulated by The Wealth of Nations, and he read widely in the field of economics, including the work of Henry Thornton.[1] Ricardo's contributions to monetary theory were included in his pamphlets and other papers written during the period of the bullion controversy[2] (particularly The High Price of Bullion, a Proof of the Depreciation of Bank Notes, 1810-1811, and Reply to Mr. Bosanquet's Practical Observations on the Report of the Bullion Committee, 1811); in Proposals for an Economical and Secure Currency, 1816;[3] in Chapter XXVII of Principles of Political Economy and Taxation, 1817, Ricardo's only book;[4] in various speeches

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[1] "It appears that in the autumn of 1809, after the publication of his original article, Ricardo read or re-read a number of writers on the subject of currency, including . . . Thornton, making notes which have been found among Ricardo's papers. . . . These notes contain conclusive evidence (in the form of dated postmarks) of having been written in 1809." Piero Sraffa, ed., with the collaboration of M. H. Dobb, The Works and Correspondence of David Ricardo (Cambridge: The University Press, for the Royal Economic Society, 1962), III, 7.

[2] Sraffa, op. cit., III.

[3] Ibid., IV, 43-141.

[4] David Ricardo, Principles of Political Economy and Taxation, ed. E. C. K. Gonner (London: G. Bell and Sons, Ltd., 1924), pp. 340-360.

and evidence in the House of Commons (where Ricardo was a member for the four years preceding his death);[5] and in Plan for the Establishment of a National Bank,[6] published six months after his death.

I. RICARDO AND THE BULLION CONTROVERSY

The High Price of Bullion

It was on August 29, 1809, that Ricardo's article on "The Price of Gold" appeared anonymously in the Morning Chronicle and began a correspondence which later moved from public to private when Ricardo discovered that his correspondent was a friend named Hutches Trower. Later (1810-1811) Ricardo published the pamphlet The High Price of Bullion, a Proof of the Depreciation of Bank Notes, the main points of which had been outlined in the letters.[7] In his introduction to that pamphlet, Ricardo mentioned the Morning Chronicle letters and said that his reasons for wanting to "republish his sentiments . . . in a form more calculated to bring it to fair discussion" were that he had seen "with the greatest alarm, the progressive depreciation of the paper-currency."[8] He added that the depreciation was a result of an excess in quantity and not from lack of confidence in the Bank of England; and said he could add little to the arguments "so ably urged by Lord King."[9]

Whether the quantity of precious metals in the world used as money were great or small would not affect the proportions in which they were

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[5] Ibid., V. [6] Ibid., IV, 271-300. [7] Ibid., III, 6.
[8] Ibid., III, 51 [9] Ibid.

divided among nations, because, Ricardo explained, the variation in their quantity would only have made the commodities for which they were exchanged comparatively dear or cheap.[10] If one nation gained wealth faster than others, it would obtain a greater proportion of the money of the world. If a mine of gold were discovered, or a bank established (with the power of issuing its notes for a circulating medium) in a country, the value of its currency would fall. The issuance of bank notes, therefore, like the discovery of a mine, operated to stimulate the export of bullion or coin, and that constituted their only benefit.[11] The excess of currency is only relative. If the proportion remained the same among the nations, no country would be conscious of an excess. Because of the increase in currency, prices would rise everywhere, but there would be no export of money. If England alone increased her currency, she would be conscious of an excess, part of which would be exported until the proportions were again established. Ricardo went on:

> The Bank might continue to issue their notes, and the specie be exported with advantage to the country, while their notes were payable in specie on demand, because they could never issue more notes than the value of the coin which would have circulated had there been no bank.[12]

To this comment, Ricardo added a footnote saying, "They might, strictly speaking, rather exceed that quantity, because as the Bank would add to the currency of the world, England would retain its share of the increase."[13] If they attempted to exceed the value of the coin that would

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[10] Ibid., III, 53.

[11] Ibid., III, 54-5.

[12] Ibid., III, 57.

[13] Ibid.

have circulated without the bank, the excess would be immediately returned to them for specie, because "our currency, being thereby diminished in value, could be advantageously exported, and could not be retained in our circulation."[14] Continuing, Ricardo said:

> . . . but if the Bank assuming, that because a given quantity of circulating medium had been necessary last year, therefore the same quantity must be necessary this, or for any other reason, continued to re-issue the returned notes, the stimulus which a redundant currency first gave to the exportation of the coin would be again renewed with similar effects; gold would be again demanded, the exchange would become unfavourable, and gold bullion would rise, in a small degree, above its mint price, because it is legal to export bullion, but illegal to export the coin, and the difference would be about equal to the fair compensation for the risk.[15]

If the bank, therefore, persisted in re-issuing the notes, all specie might leave the bank. If the bank, for coinage, bought bullion at the advanced price, the guineas would be demanded, melted and sold to the bank as bullion. The remedy the bank would be forced to would be to withdraw part of its notes from circulation, until the value of the remaining notes increased to that of gold bullion, and therefore to the value of the currencies of other countries.

From this, Ricardo drew the conclusion that "the temptation to export money in exchange for goods, or what is termed an unfavourable balance of trade, never arises but from a redundant currency."[16]

Continuing in The High Price of Bullion, Ricardo was critical of Henry Thornton for saying that a very unfavorable balance of trade might result from a bad harvest and the importation of corn that would follow,

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[14] Ibid. [15] Ibid., III, 59. [16] Ibid., III, 59.

and at the same time the country to which England was indebted might not be willing to receive English goods in payment, hence specie would depart.[17] Thornton, Ricardo complained,

> has not explained to us, why any unwillingness should exist in the foreign country to receive our goods in exchange for their corn; and it would be necessary for him to show, that if such an unwillingness were to exist, we should agree to indulge it so far as to consent to part with our coin.
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> If we consent to give coin in exchange for goods, it must be from choice, not necessity. We should not import more goods than we export, unless we had a redundancy of currency, which it therefore suits us to make a part of our exports. The exportation of the coin is caused by its cheapness, and is not the effect, but the cause of an unfavourable balance: we should not export it, if we did not send it to a better market, or if we had any commodity which we could export more profitably. It is a salutary remedy for a redundant currency; and as I have already endeavoured to prove, that redundancy or excess is only a relative term, it follows, that the demand for it abroad arises only from the comparative deficiency of the currency of the importing country, which there causes its superior value.[18]

The High Price of Bullion continued with an explanation of the workings of bimetallism,[19] and a discussion of the restriction of specie payments by the Bank of England.

Ricardo pointed out that Adam Smith considered every permanent excess of the market price above the mint price of gold as related to the state of the coins;[20] and that Thornton contended that that was not the only cause.[21] Ricardo then remarked that Thornton should have reflected that at the time he wrote the bank was not paying specie for notes and

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[17] See p. 98, supra.

[18] Sraffa, op. cit., III, 61.

[19] See p. 149, infra.

[20] See p. 43, supra.

[21] See p. 103, supra.

that that was a cause for currency depreciation which Smith could not have anticipated.

In connection with Thornton's statement that it was the "maintenance of our general exchanges" or the agreement of the mint price with the bullion price of gold that seemed to be the true proof of the depreciation of circulating paper,[22] Ricardo maintained:

> When the motive for exporting gold occurs, while the Bank do not pay in specie, and gold cannot therefore be obtained at its mint price, the small quantity that can be procured will be collected for exportation, and bank-notes will be sold at a discount for gold in proportion to their excess. In saying however that gold is at a high price, we are mistaken; it is not gold, it is paper which has changed its value.[23]

Regarding the resumption of payments by the Bank of England, Ricardo asserted that this could never take place until its notes were reduced to the point that there was no temptation to export specie.[24]

Ricardo was critical of Thornton for saying that an unfavorable trade would account for an unfavorable exchange,[25] but believed, in view of Thornton's own statement that the balance of trade could not continue to be favorable or unfavorable for very long,[26] and since the low exchange still existed and was then "fifteen to twenty per cent against us," that

> Mr. Thornton must therefore, according to his own principles, attribute it to some more permanent cause than an unfavourable balance of trade, and will, I doubt not, whatever his opinion may formerly have

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[22] See p. 97, supra.

[23] Sraffa, op. cit., III, 80.

[24] Ibid., III, 81.

[25] Ibid., III, 83. See pp. 97-9, supra.

[26] See p. 93, supra.

been, now agree that it is to be accounted for only by the depreciation of the circulating medium.[27]

The increase in the note issue was the responsibility of the Bank of England, according to Ricardo, since the country paper was regulated by the Bank of England.[28] Both profits and the rate of interest, Ricardo stated, were neither increased nor decreased by the quantity of bank notes, but were affected instead by capital other than the circulating medium.[29]

With approval, Ricardo quoted Adam Smith on money as "the great wheel of circulation" and on debased money.[30]

The fourth edition of The High Price of Bullion (1811) included a lengthy (twenty-eight-page) appendix in which Ricardo commented on the review in the Edinburgh Review of that pamphlet and also of Ricardo's Reply to Bosanquet.[31]

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[27]Sraffa, op. cit., III, 83. See pp. 194-6, infra.

[28]Sraffa, op. cit., III, 87-8.

[29]Ibid., III, 88-9, 92.

[30]Ibid., III, 89, 96-7. See pp. 42-3, 46, supra.

[31]Thomas Malthus, "Article V, Depreciation of Paper Currency," Edinburgh Review, XVII (February, 1811), 339-373. This article reviewed six pamphlets on the currency depreciation: An Inquiry into the Effects produced on the National Currency and Rates of Exchange by the Bank Restriction Bill, by Robert Mushet; The High Price of Bullion, a Proof of the Depreciation of Bank Notes, by David Ricardo; Observations on the Principles which regulate the Course of the Exchange, by William Blake; The Question concerning the Depreciation of our Currency stated and examined, by William Huskisson, Esq. M.P.; Practical Observations on the Report of the Bullion Committee, by Charles Bosanquet; and Reply to Mr. Bosanquet's Observations on the Report of the Bullion Committee, by David Ricardo.

In the appendix to The High Price of Bullion,[32] Ricardo also introduced his plan for payment in bullion, developed more fully later in his Proposals for an Economical and Secure Currency.

Ricardo, Malthus, and Rosenquet

When Malthus read Ricardo's 1811 appendix to The High Price of Bullion, he did not change his mind concerning the comments about Ricardo he had included in his review.[33]

Malthus praised Ricardo's pamphlet for its excellent view of the general principles of circulation, and for his setting forth two important doctrines: first, that every kind of circulating medium, as well as every other kind of commodity, is necessarily depreciated by excess, and raised in value by deficiency, compared with the demand; and second, that the excess and deficiency of currency are only relative terms and the circulation of a country can never be excessive except in relation to other countries.[34] Both Ricardo and Robert Mushet, it appeared to Malthus, had completely succeeded in proving the actual depreciation of the currency and in tracing it to its true cause. They both, he went on, had the satisfaction of having seen their main views of the subject, and the remedy they recommended, sanctioned by the Report of the Bullion Committee, which consisted of "some of the best informed men of their time."[35]

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[32] Sraffa, op. cit., III, 124-7.

[33] Letter from Malthus to Horner on April 7, 1811, quoted in part by Sraffa, op. cit., III, 12.

[34] Malthus, op. cit., p. 341. [35] Ibid., p. 342.

The "great fault" Malthus found in Ricardo's The High Price of Bullion was "the partial view which he takes of the causes which operate upon the course of Exchange."[36] To Malthus there were two causes (aside from the wearing or adulteration of the coin) affecting the exchange: first, the varying demand for different sorts of products arising from the varying desires and needs of the nations involved; and second, a cooperative redundancy or deficiency of currency, however it might be occasioned.[37]

In the situation of the first cause affecting the exchange, the exportation of bullion was the "effect of a balance of trade, originating in causes which may exist without any relation whatever to redundancy or deficiency of currency,"[38] Malthus said. In other cases, "a redundancy or deficiency of currency is the exciting cause of the balance of trade and payments, and of the exportation or the importation of bullion."[39] It was important to keep these two causes in mind because

> they sometimes act in conjunction, and sometimes in opposition to each other; and the results produced by their sum, or their difference, cannot of course be accounted for by either the one or the other taken separately. Mr. Ricardo, however, instead of directing his attention to both these causes, confines it to only one of them. He attributes a favourable or unfavourable exchange exclusively to a redundant or deficient currency.[40]

The effect, on Ricardo's reasoning, of his partial view of the causes of changes in the exchange, were reflected in Ricardo's criticisms of Thornton, Malthus noted.

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[36] Ibid. [37] Ibid. [38] Ibid.

[39] Ibid., pp. 342-3. [40] Ibid., p. 343.

To Ricardo it seemed that of all the attacks on the Report of the Bullion Committee, Bosanquet's[41] was the most formidable.[42] Bosanquet had presented "what he thought were irretragable proofs of the discordance of the theory with former practice."[43] Ricardo proposed to examine those "proofs" and was confident that "it will be from a deficiency of ability in me, and not from any fault in the principles themselves, if I do not shew that they are wholly unfounded."[44]

The principal positions of the Committee (with which Ricardo was essentially in agreement) to which Bosanquet objected, were:

> 1st, "That the variations of the exchange with foreign countries can never, for any considerable time, exceed the expense of transporting and insuring the precious metals from one country to the other.
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> 2d, "That the price of Gold Bullion can never exceed the mint price, unless the currency in which it is paid, is depreciated below the value of gold.
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> 3d, "That, so far as any inference is to be drawn from Customhouse returns of exports and imports, the state of the exchanges ought to be peculiarly favourable.
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> 4th, "That the Bank, during the restriction, possesses exclusively the power of limiting the circulation of Bank notes.
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> 5th, "That the circulation of country bank-notes depends upon, and is proportionate to, the issues from the Bank.
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> Lastly, "That the paper currency is now excessive, and depreciated in comparison with gold, and that the high price of Bullion and low rates of exchange are the consequences as well as the sign of such depreciation."[45]

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[41]Charles Bosanquet, Practical Observations on the Report of the Bullion Committee (London: Richardson, 1810).

[42]Sraffa, op. cit., III, 159. [43]Ibid. [44]Ibid., III, 160.

[45]Ibid., III, 161, quoting Bosanquet, op. cit., p. 8.

Bosanquet believed that the resumption of cash payments would cause great harm, and did not anticipate any improvement in exchange, or fall in the price of bullion, from a reduced circulation, unless imports fell and exports rose. To Ricardo, however, it appeared that a reduction in bank notes would lower the price of bullion and improve the exchange without disturbing the regularity of exports and imports.[46]

About Bosanquet, Malthus had this to say, among other things:

> We do not therefore think it neceffary to combat arguments which the author himfelf gives up. But, to thofe who have only read the firft edition of his pamphlet, or have a greater faith in the correctnefs and efficacy of his facts than he has himfelf, we would recommend the careful perufal of the able reply of Mr. Ricardo, accompanied by the remarks of Mr. Blake, on the real, nominal, and computed exchange, and corrected by the few obfervations which we have ventured to fuggeft in a former part of this article. With thefe helps, we are perfuaded, that the impartial and attentive inquirer after truth will fee, that the facts of Mr. Bofanquet, as far as they are ftated correctly, may be eafily explained, in perfect accordance with the main doctrines of the Report.[47]

Malthus continued, however, that those facts were not all satisfactorily explained on Ricardo's principles alone,[48] because in his Reply to Bosanquet he continued to maintain the "confined view which he had before taken of the caufes that operate upon exchange, and in confidering redundancy or deficiency of currency as the mainfpring of all commercial

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[46] Ibid., III, 245.

[47] Malthus, op. cit., p. 359.

[48] In a letter from Malthus to Horner on April 7, 1811, Malthus said, "I was sorry to find a small monosyllable put into the article either by Jeffrey, or by accident, which made a considerable alteration in the sense, and may have offended Mr. Ricardo in some degree justly. I had said, 'We do not think these facts are all satisfactorily explicable upon the principles of M Ricardo alone . . . ' it is printed at all, which makes a good deal of difference." Malthus, op. cit., p. 359; Sraffa, op. cit., III, 12. (Jeffrey was the editor of the Edinburgh Review.)

movements."[49] Malthus found it difficult to explain, according to Ricardo's view, an improving exchange under an increasing issue of notes, an event, Malthus asserted, which frequently happened. The explanation was easy, he said, if one considered "the effects produced upon the real exchange by the payments neceffary to be made, for the fupply of paft or prefent wants" and these effects always operated in "a direction exactly oppofite to the effects of redundancy of currency."[50] Malthus argued that the effect of a redundancy of currency on the exchange was sure, but slow compared with the effect of mercantile transactions not connected with the question of currency. The first of those causes, he maintained, proceeded at a generally uniform pace while the more rapid movements of the second cause opposed, aggreveted or modified these operations in various ways, producing the complex and apparently inconsistent appearances in the computed exchange.[51]

The Bullion Report, Malthus mentioned in his review, was free of the error "confined principally to Mr. Ricardo" which denied "the existence of a balance of trade or of payment, not connected with some original redundancy or deficiency of currency."[52]

Another point, Malthus suggested, where experienced merchants would disagree with the writers he was reviewing, was the effect of loans on capital.

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[49] Malthus, op. cit., p. 359.

[50] Ibid., pp. 359-60.

[51] Ibid., p. 360.

[52] Ibid., p. 361.

> No writer that we are acquainted with, has ever seemed sufficiently aware of the influence which a different distribution of the circulating medium of a country must have on those accumulations which are destined to facilitate future productions; although it follows, as a direct consequence, from the most correct and legitimate view of capital that can be taken.[53]

Malthus felt that anything like an equal distribution of the circulating medium among members of society would change the proportion between capital and revenue to the disadvantage of capital and in a few years production would fall. However, if considerable portions of the currency were taken from "the idle, and those who live upon fixed incomes, and transferred to farmers, manufacturers, and merchants,"[54] the proportion between capital and revenue would be changed greatly to the advantage of capital, and production, in a short time, would rise.

> The new notes go into the market, as to much additional capital, to purchase what is necessary for the conduct of the concern. But before the produce of the country has been increased, it is impossible for one person to have more of it, without diminishing the shares of some others. This diminution is effected by the rise of prices, occasioned by the competition of the new notes, which puts it out of the power of those who are only buyers, and not sellers, to purchase as much of the annual produce as before: While all the industrious classes,--all those that sell as well as buy, are, during the progressive rise of prices, making unusual profits; and, even when this progression stops, are left with the command of a greater portion of the annual produce than they possessed previous to the new issues.[55]

Malthus emphasized that he was not referring to a change in the quantity of the circulating medium, but to a different distribution of it.[56]

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[53] Ibid., p. 363. The article in the Edinburgh Review vacillated between the old and the modern styles of spelling and the quotations here are faithful to the original.

[54] Malthus, op. cit., p. 364. [55] Ibid.

[56] Ibid.

If quantity alone were changed, there would be no change in capital nor in the facility for borrowing. But every new issue, Malthus stated, not only changed the quantity of the circulating medium, but changed the distribution of it also, putting a greater proportion in the hands of those who consume and produce and a smaller proportion in the hands of those who only consume. He questioned, however, whether the recent ease of discounting, although it had undoubtedly tended to increase the capital of the country, had not been so unsafe as to cause more loss than gain. However, Malthus considered the resultant injustice to be the greatest objection to stimulating production by excessive currency issues. If the currency is maintained of the same value as the precious metals, the misfortune those on fixed income might suffer from depreciation occasioned by banking would be, Malthus thought, so limited as to be more than offset by the advantage to the country.[57]

> It is true, however, that, upon the issue of every fresh quantity of notes, prices rise sufficiently to send a quantity of coin out of the circulation, though not, certainly, a quantity equal in amount to the notes; and the currency is at first left greater in quantity, and consequently lower in value, compared with the commodities which it has to circulate, than before. But it frequently happens, we conceive, that the beneficial employment of the coin set free, and the increased command of the produce transferred to the industrious classes by the increase of prices, gives such a stimulus to the productive powers of the country, that, in a short time, the balance between commodities and currency is restored, by the great multiplication of the former,--and prices return to their former level.[58]

Malthus was convinced that there was an excess of currency, but it was impossible to say just how much, and he recommended that the Directors

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[57] Ibid., p. 365.

[58] Ibid., pp. 365-6.

of the Bank of England be required to reduce their notes in circulation by half a million every six months, and to continue that procedure until the market price of bullion was restored to its mint price. Then the resumption of cash payments could be achieved with safety and convenience.[59]

Horner, on April 8, 1811, answered Malthus' April 7 letter[60] and told Malthus that

> Ricardo's reply to your objections is not so well written, in point of clearness, as his usual style. I suspect that upon that dispute the truth lies between you, and that a mode of expressing and stating what takes place might be hit upon, to which you would both assent.[61]

Ricardo and Malthus, up to that time, had never met, but in June of 1811 Malthus introduced himself to Ricardo and from that time until Ricardo's death, they were, as is well known, very close friends and their many controversies on economic issues were carried on in private correspondence and discussion. Ricardo's correspondence and his notes on Malthus' Principles of Political Economy (1820) appear, of course, in Sraffa's ten-volume edition of Ricardo's works.

II. PROPOSALS FOR AN ECONOMICAL AND SECURE CURRENCY

Ricardo's Proposals for an Economical and Secure Currency, published in 1816, was written at the suggestion of Pascoe Grenfell, who had been seeking measures in the House of Commons to limit the profits the Bank of England made from transactions with the government; and Grenfell

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[59] Ibid., pp. 370-1.

[60] See p. 132, supra.

[61] Letter from Horner to Malthus on April 8, 1811, quoted in part by Sraffa, op. cit., III, 12.

supplied David Ricardo with the relevant Parliamentary Papers and Accounts.[62]

Much of the pamphlet was devoted to developing the points raised by Grenfell: the excessive profits the bank made from its dealings with the government, and their failure to distribute them among the proprietors. On these questions Ricardo went "much further" than Grenfell.[63] He intended his main proposal to be that the government appoint independent Commissioners who would be the sole issuers of paper money, would manage the national debt and act as bankers to all public departments, eliminating entirely the services of the Bank of England.[64] This plan was later developed in his Plan for the Establishment of a National Bank, and the brief allusion to it at the end of Proposals for an Economical and Secure Currency[65] is so worded as to suggest to Sraffa that it was drafted or revised by James Mill.[66] The idea that note issue should be taken away from the Bank of England was one that, according to Sayers, Ricardo took from J. B. Say.[67] Say had been commissioned by the French government to study economic conditions in England, and "he included in his unpublished report a currency plan which, it seems, he sent to

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[62]Sraffa, op. cit., IV, 45. [63]Ibid., VI, 268.

[64]Letter from Ricardo to Malthus, September 10, 1815, Sraffa, op. cit., VI, 268.

[65]Sraffa, op. cit., IV, 114. [66]Ibid., IV, 46; VII, 5.

[67]R. S. Sayers, "Ricardo's Views on Monetary Questions," Quarterly Journal of Economics, LXVII (February, 1953), reprinted in T. S. Ashton and R. S. Sayers, Papers in English Monetary History (Oxford: The Clarendon Press, 1953), p. 91.

Ricardo."[68] In a letter to Say on December 24, 1814,[69] Ricardo commented on the plan, saying his only doubt was whether government could be trusted to abide by its own rules.

The most important proposal of the Proposals was to make bank notes payable in bullion instead of coin; it had no connection with Grenfell, and was "quite new" to him.[70]

When the manuscript was finished in late September, 1815, Grenfell thought it excellent, but Ricardo was doubtful and sought the advice of Malthus and of James Mill. Malthus approved of the content but was critical of the style and arrangement;[71] and Mill, whose judgment Ricardo had sought on the propriety of proposals which might result in repudiation by the government of the bargain with the bank, provided legal arguments in defense of such a course,[72] but advised Ricardo to dwell on "the moral part of the argument against the Bank;" which Ricardo did, "using Mill's own words."[73]

About three years later, when the question of resumption came before Parliament,

> McCulloch again drew the attention of the public to Economical and Secure Currency by a review in the Edinburgh Review for December, 1818; and at his suggestion Ricardo quoted in ed. 2 of the Principles,

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[68] Ibid., citing Sraffa, op. cit., VI, 165.

[69] Ibid., citing Sraffa, op. cit., VI, 164-5.

[70] Sraffa, op. cit., IV, 46; VI, 286.

[71] Ibid., IV, 46; VI, 298.

[72] Ibid., IV, 47; VI, 357-8.

[73] Ibid., IV, 47, 93; VII, 5.

> 1819, a passage from the pamphlet containing the plan of bullion payments. The evidence before both the Lords' and Commons' Committees of 1819 centered largely on Ricardo's plan, which was finally adopted as the basis of Peel's Bill for the Resumption of Cash Payments.[74]

In approaching his plan for payment in bullion, Ricardo said that the "most perfect state" to which a currency can be brought was achieved when the public was secure against any variations in the value of the currency other than those to which the standard itself was subject, yet, at the same time, to make use of an inexpensive circulating medium.[75] These advantages could be attained, he said, by

> subjecting the Bank to the delivery of uncoined gold or silver at the mint standard and price, in exchange for their notes, instead of the delivery of guineas; by which means paper would never fall below the value of bullion without being followed by a reduction of its quantity. To prevent the rise of paper above the value of bullion, the Bank should be also obliged to give their paper in exchange for standard gold.[76]

The bank could not possibly be inconvenienced by such a regulation, Ricardo continued, while they have the power of regulating the quantity of their paper.

> The most perfect liberty should be given, at the same time, to export or import every description of bullion. These transactions in bullion would be very few in number, if the Bank regulated their loans and issues of paper by the criterion which I have so often mentioned, namely, the price of standard bullion, without attending to the absolute quantity of paper in circulation.[77]

In a footnote at this point, Ricardo mentioned that silver appeared to him to be best adapted for the standard, and if it were made so by law, the bank would be obliged to buy or sell silver bullion only; if gold

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[74] Ibid., I, 356-61; IV, 47; VII, 393.

[75] Ibid., IV, 66. [76] Ibid. [77] Ibid., IV, 67.

were to be the only standard the bank would then be required to buy or sell gold only. If both metals continued to be the standard, the bank should have the option which of the metals it would give in exchange for its notes; and a price at which the bank must purchase should be fixed for silver, somewhat under the standard.

With a currency regulated in the suggested manner, Ricardo assured his readers that

> the Bank would never be liable to any embarrassments whatever, excepting on those extraordinary occasions, when a general panic seizes the country, and when every one is desirous of possessing the precious metals as the most convenient mode of realizing or concealing his property. Against such panics, Banks have no security, on any system; from their very nature they are subject to them, as at no time can there be in a Bank, or in a country, so much specie or bullion as the monied individuals of such country have a right to demand.[78]

(Ricardo mentioned here that it had been this kind of panic which caused the 1797 crisis, and not the advances of the bank to the government.)[79]

If the plan for paying bank notes in bullion were adopted, Ricardo advocated that either the same privilege be extended to country banks, or that bank notes be made legal tender, and the country banks would continue to be required to pay their notes in Bank of England notes when demanded.

Concerning the profits of the bank from dealings with the government, Ricardo criticized "Mr. Thornton" for saying that the gains of the Bank were in proportion to the amount of their notes in circulation, and that public deposits resulted in no advantage except to the extent that

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[78] Ibid., IV, 68.

[79] Ibid.

they enabled the bank to maintain a larger amount of notes in circulation.[80] "That the increase in the amount of public deposits should enable the Bank to add to the amount of their notes in circulation," Ricardo argued, "is neither supported by theory nor experience."[81] To support this observation, Ricardo mentioned that the deposits had at no time increased so much as from 1800 to 1806, when there was no increase in the circulation of notes of five pounds and up; but from 1807 to 1815, with no increase in the public deposits, notes of five pounds and up increased five millions. Ricardo quoted the Report from the Committee on Public Expenditure, 1807, in support of his position on the profits of the bank.

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[80] Ibid., IV, 77-8. At this point, Ricardo referred to "Mr. Thornton, one of the directors who had been governor" of the Bank of England. In The High Price of Bullion, Ricardo's references to "Mr. Thornton" were to Henry Thornton. On pp. 91, et seq. of the pamphlet here under discussion, Ricardo's references to "Mr. Thornton" apparently mean Samuel Thornton, and on p. 102 he refers to "Mr. Samuel Thornton" as governor of the bank. Although Sraffa did not remark on it, Henry Thornton's brother, Samuel Thornton, had been a director and, from 1799 to 1801, governor of the Bank of England. In his introduction to the Kelley edition of Thornton's Paper Credit, pp. 14-15, Hayek said that Samuel Thornton outlived his younger brother, Henry, by eighteen years and after Henry Thornton's death Samuel Thornton gave important evidence to the Committee of the House of Commons on the Resumption of Specie Payments in 1819, and "he seems to have been the more familiar figure to the economists of the 'twenties and 'thirties. It must be due to a confusion with him that J. R. MacCulloch started the legend, since copied by practically everyone who ever mentioned Henry Thornton, that the latter was a director and Governor of the Bank of England." Hayek continued that it was apparent that Henry Thornton was never a director of the Bank of England from the complete list of directors given by W. M. Acres, The Bank of England from Within, 1694-1900 (London: 1931), II, 613-30, and had been confirmed by the Secretary of the Bank of England, on inquiry. It should have been obvious, Hayek went on, from the fact that a well established tradition prevented a banker like Henry Thornton from becoming a director of the Bank of England.

[81] Sraffa, op. cit., IV, 73.

". . . it is admitted that the notes of the Bank are productive of profit, but it appears to be assumed that the government balances are only so in proportion as they tend to augment the amount of notes; whereas your committee are fully persuaded that both balances and notes are and must necessarily be productive."[82]

The Report from the Committee on Public Expenditure went on to list three funds of the bank which were sources of profit: first, the proprietors' capital and savings added to it; second, the sum received from persons keeping cash at the bank, consisting of the deposits of both government and individuals; and third, the sum received in return for notes put into circulation. "'The sum at all times running at interest will be in exact proportion to the amount of these three funds combined, deduction being made for the value of cash and bullion.'"[83] The Report showed that in 1807 public deposits were between eleven and twelve millions, while in 1797 public and private deposits together were only somewhat more than five millions.[84] The same Report also "notices the exorbitant allowance which was made to the bank for the management of the national debt."[85] Presenting his moral argument against the bank, in words suggested by James Mill, Ricardo said: "Is it not lamentable to view a great and opulent body like the Bank of England, exhibiting a wish to augment their hoards by undue gains wrested from the hands of an over-burthened people?"[86]

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[82] Ibid., IV, 79.

[83] Ibid., IV, 79-80, Ricardo quoting from Second Report from the Committee on the Public Expenditure . . . , 1807, p. 77.

[84] Ibid., IV, 79-81.

[85] Ibid., IV, 81.

[86] Ibid., IV, 93; VII, 5.

Although referring to the then current directors as men "against whom not a shadow of suspicion any where exists,"[87] Ricardo deplored the bank's keeping the proprietors in ignorance of the affairs of the bank, and failing to distribute profit.[88] The pamphlet then ended with the brief reference to the possibilities of a national bank:

> If indeed the charter were about to expire, the public might question the policy of permitting a company of merchants to enjoy all the advantages which attend the supplying of a great country with paper money; and although they would naturally look with jealousy, after the experience furnished by other states, to allowing that power to be in the hands of government, they might probably think that in a free country means might be found by which so considerable an advantage might be obtained for the state, independently of all control of ministers. Paper money may be considered as affording a seignorage equal to its whole exchangeable value,--but seignorage in all countries belongs to the state, and with the security of convertibility . . . and the appointment of commissioners responsible to parliament only, the state, by becoming the sole issuer of paper money, in town as well as in the country, might secure a net revenue to the public of no less than two millions sterling. Against this danger, however, the Bank is secure till 1833, and therefore on every ground publicity is expedient.[89]

III. ON CURRENCY AND BANKS

Chapter XXVII of Ricardo's Principles of Political Economy and Taxation (1817),[90] entitled "On Currency and Banks," contained a survey of some of the "general laws" regulating the quantity and value of currency.[91] It was not until the second edition that the passage from

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[87] Ibid., IV, 110. [88] Ibid. [89] Ibid., IV, 114.

[90] David Ricardo, Principles of Political Economy and Taxation, ed. E. C. K. Gonner (London: G. Bell and Sons, Ltd., 1924), pp. 340-360.

[91] Ibid., p. 340.

Proposals for an Economical and Secure Currency, concerning the bullion payments plan, was quoted.[92]

Ricardo included among the general laws the principle that the quantity of money that can circulate depends on its value; and gold and silver, "like all other commodities, are valuable only in proportion to the quantity of labour necessary to produce them, and bring them to market."[93] Circulation, Ricardo said, could never be so abundant as to overflow, for if its value diminished, the quantity increased and if the value increased, the quantity diminished.[94]

The most important point in issuing paper money was limitation of its quantity. It was not necessary, he continued, that paper money be payable in specie to maintain its value; "it is only necessary that its quantity should be regulated according to the value of the metal which is declared to be the standard."[95] If the standard were a given weight and fineness of gold, "paper might be increased with every fall in the value of gold, or, which is the same thing in its effects, with every rise in the price of goods."[96] However, experience had shown, Ricardo asserted, that

> neither a State nor a Bank ever have had the unrestricted power of issuing paper money, without abusing that power: in all States, therefore, the issue of paper money ought to be under some check and control; and none seems so proper for that purpose as that of subjecting the issuers of paper money to the obligation of paying their notes, either in gold coin or bullion.[97]

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[92] Sraffa, op. cit., IV, 47.

[93] Ibid.; Ricardo, loc. cit.

[94] Ibid., pp. 340-1.

[95] Ibid., p. 342.

[96] Ibid.

[97] Ibid., p. 344.

The next four or five pages of Ricardo's Principles[98] presented his plan for the payment of bank notes in bullion, directly quoted from the pamphlet, Proposals for an Economical and Secure Currency.

Briefly discussing the advantages of state-issued paper currency, Ricardo said that the difference between the rate of profits and the rate at which the Bank of England was willing to lend money determined the demand for loans. It was an argument against the Bank of England, he felt, that it had been lending money at a rate lower than the market rate.

The chapter about banks and currency ended with a discussion of bimetallism.

> It appears, then, that whilst each of the two metals was equally a legal tender for debts of any amount, we were subject to a constant change in the principal standard measure of value. It would sometimes be gold, sometimes silver, depending entirely on the variations in the relative value of the two metals; and at such times the metal, which was not the standard, would be melted, and withdrawn from circulation, as its value would be greater in bullion than in coin. This was an inconvenience, which it was highly desirable should be remedied; but so slow in the progress of improvement, that although it had been unanswerably demonstrated by Mr. Locke, and had been noticed by all writers on the subject of money since his day, a better system was never adopted till the session of Parliament, 1816, when it was enacted that gold only should be a legal tender for any sum exceeding forty shillings.[99]

Ricardo did point out that Adam Smith did not seem to be entirely aware of the effect of bimetallism. In Smith's time gold was the medium in which debtors paid their debts, and apparently this led Smith to believe

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[98] Ibid., pp. 344-349.

[99] Ibid., p. 397, citing John Locke, Some Considerations of the Consequences of the lowering of Interest and raising the Value of Money, second edition, 1696, p. 171.

that gold had some inherent quality by which it always regulated the value of silver coin. The true view, Ricardo indicated in a footnote, was established by Sir Thomas Gresham.[100]

IV. THE RESUMPTION OF PAYMENTS

Ricardo was sure that the precious metals were better than any conceivable alternative,[101] but the question was should it be silver or gold? Although in his earlier writings he showed no preference, by 1815-16 he was advocating a silver standard.[102] Shortly after the war, he was impressed with the desirability of the resumption of payments to the extent that the choice of the metal faded into the background.[103] On March 4, 1819, in his evidence before the House of Commons on the resumption of payments, in answer to a question as to which metal he would recommend, Ricardo answered:

> I find some difficulty in answering that question; there were reasons which at one time induced me to think that silver would have been the better metal for a standard measure of value, principally on account of its being chiefly used in the currencies of other countries; but as I have understood that machinery is particularly applicable to the silver mines, and may therefore very much conduce to an increased quantity of that metal and an alteration of its value, whilst the same cause is not likely to operate upon the value of gold, I have come to the conclusion, that gold is the better metal by which to regulate the value of our currency.[104]

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[100] Ricardo, op. cit., p. 358.

[101] Letter from Ricardo to Trower, March 2, 1821, Sraffa, op. cit., VIII, 350, cited by Sayers, op. cit., p. 83.

[102] See p. 142, supra.

[103] Sayers, op. cit., p. 83.

[104] Sraffa, op. cit., V, 390-1.

In a speech on May 24, 1819, before the House of Commons, Ricardo said he was convinced the Bank of England did not know how to go about resumption of cash payments; and that, because of the directors' inconsistencies, Parliament should take out of their hands the preparations for the resumption. It was important to remember, he insisted, that

> those who had the power of regulating the quantity of the circulating medium of the country, had the power of regulating the rate of the exchanges, and the price of every commodity. This power clearly resided in the hands of the directors of the Bank, and it was a most formidable one.[105]

In this same speech, Ricardo referred to the traditional limits of the discounting of the Bank of England while denying that the bank could regulate issues by means of changes in the rate of interest.

> . . . what the directors thought a check, namely, the rate of interest on money, was no check at all as to the amount of issues, as Adam Smith, Mr. Hume, and others had satisfactorily proved; yet . . . the Bank directors were governed by certain traditional limits. . . .[106]

Ricardo's plan for the payment of notes with bullion, offered in his Proposals for an Economical and Secure Currency, was not only an important part of his proposals for resumption of cash payments, but he regarded it as a system for permanent currency reform. He gave evidence on this plan in 1819 when the question of the resumption of payments was before Committees of both Houses of Parliament.[107] Ricardo won temporary adoption of the plan to help in the transition to resumption.[108] Even after Peel's 1819 Bill for the Resumption of Cash Payments had passed,

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[105] Ibid., V, 10.

[106] Ibid., V, 12.

[107] Ibid., V, 371-457.

[108] Ibid., V, 351.

embodying the plan for bullion payments as a temporary measure, Ricardo and his friends still hoped for permanent adoption.[109] The plan went into effect on February 1, 1820, when the bank resumed gold payments in 60-ounce ingots, which came to be called Ricardoes.[110]

Another idea of Ricardo's which was adopted was the plan to reduce the price of gold according to a fixed scale until the mint price was reached.[111]

By the Act of 1819, the Bank of England was given the option to issue gold coin on May 1, 1822, and was bound to resume coin payments on May 1, 1823. The Chancellor of the Exchequer, on March 19, 1821, proposed that the optional power be brought into operation on May 1, 1821, because of two circumstances:

> first, the rapid accumulation of treasure in the Bank, which by restricting the circulation of other countries produced an unfavourable effect on commerce; secondly, the widespread forgery of Bank-notes, which could only be diminished by the progressive substitution of coin for Bank-notes.[112]

Two proposals were made by Mr. Baring on the same day. The first was to make permanent what he called the Ricardo system of paying bank notes in bullion. (Regarding forgery, he suggested the invention of a bank note more difficult to imitate; or, instead of the small notes, gold tokens.) His second proposal was the establishment of a double standard, namely, gold and silver.

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[109] Ibid.

[110] Ibid., V, 368.

[111] Ibid., V, 351; VI, 67.

[112] Ibid., V, 91.

The bullion payments plan virtually came to an end in April, 1821, when an Act was passed anticipating by a year the clause in the 1819 Act giving the bank the option of paying their notes in either coin or bullion.[113]

In the several years following Peel's Bill for the Resumption of Cash Payments, prices fell markedly. "Every ill which befalls the country is," Ricardo complained, "by some ascribed to Peel's bill, and Peel's bill is invariably ascribed to me."[114] On June 11, 1822, Mr. Western moved that a committee be appointed by the House of Commons to consider "the effect which the resumption of cash payments had had in producing the present agricultural distress."[115] On June 12, 1822, speaking before the House of Commons, Ricardo granted that

> it was undeniable, that the manner in which the Bank had gone on purchasing gold to provide for a metallic currency, had materially affected the public interests. It was impossible to ascertain what was the amount of the effect of that mistake on the part of the Bank, or to what precise extent their bullion purchases affected the value of gold; but, whatever the extent was, so far exactly had the value of the currency been increased, and the prices of commodities been lowered.[116]

Ricardo pointed out in that same speech that in 1819 he had recommended that the bank not buy bullion, but sell. Since his recommendations had not been adopted, he felt he should not be chargeable for results

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[113] Ibid., V, 370.

[114] Letter from Ricardo to Trower, December 11, 1821, Ibid., IX, 122, cited by Sayers, op. cit., p. 87.

[115] Sraffa, op. cit., V, 198. [116] Ibid., V, 199.

"over and above the effect of raising the currency from the actual state of depreciation at which it stood at the time."[117]

On June 11, 1823, Mr. Western moved that a committee be appointed to consider various consequences of changes in the value of the currency since 1793. A speech of Ricardo's of that date included this criticism of the bank's handling of the resumption:

> The difference in 1819, between paper and gold, was 5 per cent, and the paper being brought, by the bill of 1819, up to the gold standard . . . as the value of the currency was only altered 5 per cent, there could be no greater variation than 5 per cent, in the result as to prices. But this calculation had always been subject to a supposition, that no change was to take place in the value of gold. Mr. Peel's bill, as originally constituted, led the way to no such change. That bill did not require the Bank to provide itself with any additional stock of gold till 1823. It was not a bill demanding that coin should be thrown into circulation, till after the expiration of four years and a half; and before that period, if the system worked well, of which there could be no doubt, parliament could, and in all probability would, have deferred coin payments to a considerably later time. It was a bill by which, if they had followed it strictly, the Bank would have been enabled to carry on the currency of the country in paper, without using an ounce more of gold than was then in their possession.
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> Gentlemen forgot that, by that bill, the Bank was prohibited from paying their notes in specie, and were required only to pay them in ingots on demand; ingots which nobody wanted, for no one could use them beneficially. The charge against him [Ricardo] was, that he had not foreseen the alteration in the value of the standard, to which, by the bill, the paper money was required to conform. No doubt, gold had altered in value; and why? Why, because the Bank, from the moment of the passing of the bill in 1819, set their faces against the due execution of it. Instead of doing nothing, they carried their ingots, which the public might have demanded of them, to the Mint, to be coined into specie, which the public could not demand of them, and which they could not pay if it did. Instead of maintaining an amount of paper money in circulation, which should keep the exchanges at par, they so limited the quantity as to cause an unprecedented influx of the precious metals, which they eagerly bought and coined into money.

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[117] Ibid., V, 207.

> By their measures they occasioned a demand for gold, which was, in no way, necessarily consequent upon the bill of 1819 . . .[118]

The handling of the resumption by the Bank of England served to emphasize further Ricardo's interest in a national bank to supersede it.

V. PLAN FOR THE ESTABLISHMENT OF A NATIONAL BANK

The project concerning a national bank for England, which Ricardo had first begun to formulate in 1815 during the writing of his *Proposals for an Economical and Secure Currency*, was developed in the pamphlet *Plan for the Establishment of a National Bank*, published in February, 1824, six months after Ricardo died.

At the time (1814) when J. B. Say had submitted to Ricardo an unpublished paper with a similar proposal, Ricardo agreed that the profit from the issue of paper currency should belong to the public, but was doubtful concerning whether the government might not abuse the power.[119]

Although the charter of the Bank of England was not due to expire until 1833, its renewal in advance came up in 1822. Ricardo, then in the House of Commons, opposed the renewal and suggested the issuance of paper currency without the Bank of England, and for the profit of the public.

Ricardo began the *Plan for the Establishment of a National Bank* by recognizing two operations performed by the Bank of England: issuing paper currency; and making loans to merchants and others.[120] The two

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[118] *Ibid.*, V, 311-12.

[119] *Ibid.*, IV, 272; VI, 165-6.

[120] *Ibid.*, IV, 270.

operations, he said, had no necessary connection and could be carried on by two separate bodies.

If the privilege of issuing paper money were taken from the bank, and exercised by the government only, subject to the payment of its notes in specie on demand (which the Bank of England was then required to do), Ricardo saw no disadvantage that would follow, assuming the same quantity of notes to be issued. The government would not have to borrow from the bank nor to pay interest. All other classes in the community would be in the same position as before; there would be just as much money in circulation; merchants could not be inconvenienced because the amount of advances made to them depended on the amount of money in circulation, which would be the same; and of the amount in circulation the bank would have exactly the same proportion to lend to merchants.[121]

Ricardo believed that the advances made by the bank to the government exceeded the entire amount of Bank of England notes in circulation; therefore, part of the advances had to have been made from other funds, and these funds the bank would continue to have. Ricardo felt that the bank would continue to exist as a joint stock company, having profitable means of employing its funds, but ventured to say that if the company were dissolved commerce would suffer no inconvenience. Businessmen were even then discounting in large amounts with private discount brokers, and in the absence of the Bank of England the business of these brokers would increase.[122]

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[121] Ibid., IV, 277.

[122] Ibid., IV, 278-81.

Concerning the objection that government could not safely be entrusted with the power to issue money, Ricardo's solution was to place the responsibility in the hands of Commissioners, not removable from their office except by a vote of one or both Houses of Parliament. He advised that any kind of money transactions between the Commissioners and ministers be prohibited, and that the Commissioners should never lend money to the government nor be under its control or influence. The ministers, according to Ricardo, would have much less power over the Commissioners than they then possessed over the directors of the Bank of England.[123]

Ricardo set out a fifteen-point plan for the carrying out of his recommendation.[124] The first regulation provided for the appointment and salary of five Commissioners, while the second handled the manner in which the new paper circulation was to be substituted for the old. The deposit of gold coin and bullion with the new establishment was provided for in the third regulation, and the fourth and fifth dealt with the substitution of the new paper money for the old. The seventh regulation provided for the substitution of the new notes for the old country bank notes; number eight was a regulation providing against fraud and forgery. Regulations nine and eleven both provided facilities for making remittances and payments to any district in the country; and ten involved payment of the notes of every district, in coin, in London. By requiring

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[123] Ibid., IV, 282.

[124] The numbering went to sixteen, with no number six, apparently because the original regulation six was combined with one of the others and the numbering not adjusted. Ibid., IV, 286, note 4.

the Commissioners to issue currency at all times in exchange for gold at a fixed rate, the twelfth regulation provided against the amount of paper currency being too limited. Ricardo suggested it might be expedient to require them to sell gold bullion at a price just below that at which coin could be obtained, and just above that at which they would issue currency for gold; coin would probably then never be exported. By the thirteenth regulation, the Commissioners were obliged to pay their notes, on demand, in gold coin. A supply of one-pound notes for country circulation was provided for by the fourteenth regulation, and the fifteenth just explained some of the previous ones. The sixteenth regulation directed that the Commissioners act as banker to the public departments only.[125]

Under Ricardo's plan, only the Commissioners in London could make an original issue of notes. If in one district the circulation became redundant, the redundancy would be transferred to London; if it were deficient, a fresh supply would be forthcoming from London. Concerning the situations when the circulation of London should be either redundant or deficient, Ricardo asserted:

> If the circulation of London should be redundant, it will show itself by the increased price of bullion, and the fall in the foreign exchanges, precisely as a redundancy is now shown; and the remedy is also the same as that now in operation; viz. a reduction of circulation, which is brought about by a reduction of the paper circulation. That reduction may take place two ways; either by the sale of Exchequer bills in the market, and the cancelling of the paper money which is obtained for them,—or by giving gold in exchange for the paper, cancelling the paper as before, and exporting the gold. The exporting the gold will not be done by the Commissioners; that will be effected by the commercial operation of the merchants, who never

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[125] Ibid., IV, 283-96.

fail to find gold the most profitable remittance when the paper money is redundant and excessive. If, on the contrary, the circulation of London were too low, there would be two ways of increasing it--by the purchase of Government securities in the market, and the creation of new paper money for the purpose; or by the importation, and purchase, by the Commissioners, of gold bullion; for the purchase of which new paper money would be created. The importation would take place through commercial operations, as gold never fails to be a profitable article of import, when the amount of currency is deficient.[126]

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[126] Ibid., IV, 296-7.

CHAPTER VI

RESUME OF EARLY ENGLISH CLASSICAL MONETARY THEORY[1]

The views on money and banking expressed by Adam Smith overshadowed those of such contemporaries as Adam Dickson and remained paramount for many years. The 1797 Act, which restricted the cash payments of the Bank of England, created a new dimension--inconvertibility--in English monetary affairs. The keen interest in the effects of the Restriction, and in the subsequent Bullion Report, inspired considerable thought and writing on monetary subjects, some of which was in marked disagreement with the principles of Adam Smith. Although there were areas of general agreement, the theories of Smith, Thornton, Ricardo and Malthus on monetary matters were far from accord.

I. KIND AND QUANTITY OF MONEY

One of the areas in which there was a general agreement among the writers under discussion was that, in a permanent sense, currency should be convertible. To Smith, as long as paper money was issued by people of undoubted credit and was paid upon demand, without condition, it would cause no price rise and would function as well as the metal, which it replaced. Although Thornton supported the suspension of payments, as a temporary measure, he felt that convertibility was one of the means of

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[1]Since this resume is based on Chapters III, IV and V, references to the sources of information will not be repeated in this Chapter.

fixing the value of paper currency. The Bank of England should maintain a fund of gold, Thornton recommended, to meet ordinary fluctuations in demand for coin, to counteract an unfavorable balance of trade, and to meet demands of panic at home. David Ricardo, although believing with Thornton that the value of an inconvertible currency could be maintained by regulating the quantity, felt that experience had shown that those having unrestricted power of issue of paper money abused the power; therefore, he favored the obligation of convertibility as the best check. Ricardo's recommendation that conversion be into bullion instead of coin was embodied in the Resumption Act as a temporary measure, although Ricardo intended it as a permanent banking reform. However, he considered even convertibility no protection against general panic.

Gold and silver for the early classicists were commodities and their values were determined just as the values of other commodities. Their value, for Smith, depended upon how easy or difficult they were to acquire; or, as Ricardo put it, gold and silver were valuable in proportion to the amount of labor it took to produce them and bring them to market. To Thornton, gold and silver, in the form of bullion, were commodities, but when converted into money they merely measured the value of other articles. As bullion, the precious metals were priced in the same manner as other commodities--by the forces of demand and supply.

Smith stated that the substitution of paper for metal represented a saving and a convenience, and Thornton and Ricardo agreed. Concerning the functions of paper currency and its regulation, however, there was considerable disagreement.

Smith's statement that all the paper of every kind that could easily circulate could never exceed the gold and silver it replaced, caused Thornton to wonder if bills of exchange were included, and to point out that this would have made the statement obviously false. Thornton pointed out that varying velocities rendered Smith's statement inaccurate; and also that one might be led to think that trade could be carried on entirely with coins. Ricardo, on the other hand, expressed himself in the same manner as Smith, saying that the bank could never issue more convertible notes than the value of the coin which would have circulated had there been no bank. Ricardo added that strictly speaking the quantity could be exceeded by the amount of England's share of the increased currency of the world. Still sounding very much like Smith, Ricardo said that if the attempt were made to exceed the value of the coin that would have circulated without the bank, the excess would be returned immediately for specie. Since it was not necessary to hold gold and silver as one hundred per cent backing for the paper currency, much of the metal would overflow, as Smith put it, and be sent abroad, paper taking its place at home. Thus, paper currency converted what Smith called dead stock into active stock; Thornton took this a step further, saying that it could actually add to stock.

Thornton clearly felt that bills of exchange formed a part of the circulating medium, and criticized Smith for not making reference to their ability to take the place of bank paper.

When paper money was added to currency, an equal amount of gold and silver was taken from it, Smith stated, so paper money does not

necessarily increase the quantity of the whole currency. Smith, nevertheless, made recommendations for the limitation of paper currency. He felt that even an amount not dangerous in ordinary times might be too much because of the possibility of loss of the metal backing during war. Smith's suggestion was to limit paper circulation to dealer-to-dealer transactions by not issuing small denominations.

Coin was chiefly the monetary standard, Thornton maintained, and payments were not really intended to be made in coin. The important thing was that money should actually be the standard. The value of country bank notes, he said, was sustained not by their convertibility into guineas but by the fact that they could be exchanged for Bank of England notes; the value of Bank of England notes depended not so much on the confidence in them as on their quantity. Therefore, it was important that the quantity of Bank of England notes be regulated. Thornton pointed out that problems could arise from too restricted issues and also from excessive issues; and that various factors would prevent an exact correlation between limitation of Bank of England notes and all other paper, and between the regulation of Bank of England notes and prices. An excessive issue of paper produced an unfavorable exchange, but the tendency of a reduction in paper issues to improve the exchange might be offset by stagnation of commerce and manufactures. In addition to an unfavorable exchange, excessive paper issues caused price rises and an excess of the market price above the mint price of gold. It was not feasible, to Thornton, that bank paper could be safely permitted to limit itself.

Thornton's recommended policy for regulating bank notes (which he felt could be done through the bank rate, if the usury laws were repealed) was that there should be no material or violent changes in quantity, but rather a movement within limits. That movement should be a careful and gradual extension as trade grows, and special but temporary increases in case of panic. The tendency should be toward a decrease in paper currency when gold was leaving and the exchanges were continuing to be unfavorable.

To Ricardo, a redundant currency was the only cause of an unfavorable balance of trade, while Thornton and Malthus recognized that changing demand for products in international trade also caused changes in the balance of trade. To Ricardo, a reduction in the quantity of bank notes would lower the price of bullion and improve the exchange without disturbing exports and imports.

In connection with increases in the quantity of money, Malthus emphasized the resulting redistribution of it into more productive hands. A temporary price rise following the increase would be offset by the production of more commodities and the former price level would be restored. However, there was danger in trying to achieve greater production by increasing the money supply as an excess might cause more loss than gain. Malthus recognized the injustice that would follow as the greatest objection to excessive issues of currency.

II. REAL-BILLS DOCTRINE

Henry Thornton and David Ricardo explicitly objected to the real-bills doctrine advanced by Adam Smith. (A view in opposition to the

real-bills doctrine had been expressed even before Adam Smith, by Adam Dickson in 1773.) It had been Adam Smith's firm opinion that paper currency issued would never be in excess of the value of the metal which would have circulated in its place, provided banks limited their lending to the supplying of only such capital as the businessman would otherwise have to hold idle in ready money. It was, for Smith, over-trading which caused the excessive circulation of paper. He felt that when a bank discounted a real bill, they were advancing only an amount which would otherwise have to be held idle. The payment of the bill then replaced that value (with interest) and the coffers of a bank which limited itself to such lending was like a water pond with a stream continually running in to replenish the stream running out. In addition to discounting real bills, Smith considered it safe for banks to make advances on a cash account if the loan were to provide ready money and if repayments were prompt.

Thornton discussed bills of exchange at length, considering them a part of the circulating medium and of businessmen's liquidity position, because, in addition to the original purpose for which they were drawn, bills of exchange were discountable articles. It was not true, Thornton pointed out, that real bills necessarily represented actual goods in existence because the same property might give rise to a number of bills of exchange as it was sold and resold; and increased length of credit on sales would increase the possible number of bills outstanding as a result of movement of the same articles. Real bills therefore were secured by general credit, just as so-called fictitious bills. It was possible for a fictitious bill to be better secured than a real bill; however, there

were certain factors tending to make the fictitious bill less safe: it might be passed as a real bill, and the extent of a businessman's sales did form some limit to real bills, but not to fictitious ones; and the fictitious bill might be less likely to be punctually paid than the real bill. Bank notes could not be sufficiently limited, according to Thornton, simply with regard to the security for which they were given.

Although not a believer in the real-bills doctrine, Thornton was a defender of the policies of the Bank of England; Ricardo, however, not only felt that the real-bills doctrine could not adequately limit the issues of the Bank of England notes, he attacked the Bank of England as a monopoly making profits that should go to the state. He urged that the issuance of money be in the hands of Commissioners responsible to Parliament and altogether removed from the Bank of England.

III. VELOCITY

Of the group under examination, it was Thornton who discussed the role of velocity in relation to the quantity of currency, and he pointed out Smith's omission of velocity from his doctrine. Bills of exchange (part of the circulating medium for Thornton) circulated slower than bank notes because they paid interest to a holder and because they circulated by virtue of confidence of the receiver in the last endorser; bank notes on the other hand bore no interest to the holder and circulated on confidence in the issuer. Not only did some parts of the circulating medium circulate at a different rate than others, but Thornton perceived that there were different degrees of rapidity of circulation of the same kinds

of paper (and even of the same coins) at different times. In times of high confidence circulation increased because less provision was made against contingencies; in periods of distrust, however, circulation slowed because the loss of interest from holding money was offset by the need for security. In order to determine, therefore, how much money could circulate without loss of value, it was necessary to consider not only the relation of its quantity to the quantity of trade, but also the relative rapidity of its circulation.

IV. ELASTICITY

There was little reference to elasticity among the early classicists; however, Adam Smith felt the real-bills doctrine would assure the circulation of the proper amount of currency, and cause the quantity to change with the needs of business. To Thornton, who understood that different states of confidence resulted in variations in velocity, it followed that changes in quantity might offset changes in velocity; and he clearly indicated the desirability of expanding Bank of England notes at times of internal drain. The principle of elasticity was apparent, also, in Thornton's understanding that there would be occasion for increasing the volume of bank notes before each installment on a government loan. There was no suggestion, though, of any automatic method of providing for elasticity.

Changes in commerce and in confidence, Ricardo stated, caused variations in the demand for money; and he also saw the effect on the money market of the payment of the dividends on the public debt. He noted

that paper money, when confidence was low, could be increased without a change in its value.

V. LIQUIDITY

To Adam Smith the real-bills doctrine would provide necessary bank liquidity, and there was general agreement among the early classical group that banks should limit their assets to short term.

Thornton had indicated, in his discussion of bills of exchange, that these were one of the less expensive means of maintaining businessmen's liquidity; and in his discussion of the country banks he indicated they would be better prepared to weather a panic if they carried a larger volume of liquid earning assets. In times of confidence, there was less tendency to provide against contingencies; but in times of pessimism liquidity was desired to the extent of willingness to sacrifice interest in order to hold money.

VI. PRICES

Labor was the real measure of the exchange value of all commodities, Adam Smith stated, but added that it was more natural to estimate values in terms of the medium of exchange. Since he felt that an equal amount of gold and silver was taken from the currency as paper money was added, paper money did not necessarily increase the quantity of the whole currency and affect prices. Paper money of doubtful convertibility would fall below the value of gold and silver to a greater or less degree, depending on the state of uncertainty.

To Thornton, price was a matter of supply and demand, or of market power. A rise in the price of a scarce commodity would be more or less considerable in proportion as the article was more or less of a necessity. The determinants of price were supply and demand of the commodity and supply and demand of the circulating medium. Although an increase in paper currency raised prices, Thornton recognized that there might not be exact correspondence between them.

A rise in the cost of commodities contributed to an excess of the market price over the mint price of gold, Thornton maintained. Exports would tend to lessen, and imports increase; however, the increase in the price of goods itself would change the course of exchange rates and partially prevent the high price from producing the unfavorable balance of trade. The British consumer would pay the high price, and the foreigner would be spared. When coin became cheap, it did not follow that bullion did also. Bullion was only a commodity, but coin was rendered cheap because it was part of the circulating medium.

Smith had said that a seigniorage would decrease if not destroy the excess of the market price over the mint price of gold; but Thornton argued that Smith should have considered the fall of the exchange rates, and the high prices of goods which produced the fall of the exchange rates.

Allowing for the expense of transportation, bullion bears in all countries nearly the same value in exchange for goods, according to Thornton. The difference between the market price and the mint price of gold, or the fluctuation in the exchange rates, was the measure of the

extent to which paper credit raised commodity prices above bullion prices. The increased use of paper in each country, Thornton claimed, must contribute to lower the price of bullion, by lessening the general demand for it in the world.

For Ricardo, the market price of bullion never exceeded the mint price unless the currency in which it was paid was depreciated below the value of gold.

VII. EMPLOYMENT

The classical economists, as is well known, believed that there was a natural tendency toward full employment. For Smith, the metal sent abroad (freed by paper circulation) contributed to employment because it was, for the most part, used for the purchase of foreign goods, which promoted industry.

Thornton pointed out that paper money could increase the production of commodities by creating new industry (but the increase of industry would not keep pace with the money increase); and scarcity of money caused manufacturers to slacken or suspend operations, causing a fall in the demand for labor. The power of increased paper to benefit production was limited by the fact that the number of idle persons to whom new employment could be given was limited; and, if the increase in money continued, it would simply attract workers from other occupations. If the excess of paper raised the cost of goods, but not the price of labor, some increase in the stock of the country would result because of the forced savings of the laborer, which would work a hardship on him. This

would result from the laborer's being forced to consume fewer articles, though putting forth the same industry. Conversely, a great and sudden reduction of bank notes created unusual and temporary distress and falling prices; wages would probably not fall because the fall in price would be understood to be temporary, and the rate of wages, Thornton stated, was not so variable as the price of goods.

VIII. BANKING FUNCTIONS

Smith had criticized the Bank of England for issuing too much paper, of which, as he put it, the excess continually returned to be exchanged for gold and silver, obliging the Bank of England to buy bullion for coinage at a loss. Henry Thornton was not in agreement with Smith's position, and stated that Smith could not know the quantity of notes, and apparently assumed them to be excessive because the price of gold was high and coinage great. Smith's observation, unqualified, said Thornton, led one to suppose that great demand for gold and high price of bullion were always caused by an excess of circulating paper--and that the remedy was reduction of bank notes. Because of its relationship with the commercial world and with the country banks, the Bank of England, Thornton believed, had to maintain quite closely its accustomed amount of notes. He distinguished three kinds of drains to which the Bank of England was subject: domestic panic or alarm; an unfavorable balance of trade caused by overissue of paper currency; and an unfavorable balance of trade from other causes.

Thornton defended the Bank of England at the time of the suspension of payments, stating that the need for the suspension arose not from deficiency in its resources, excessive loans to government, or improvidence of the directors, but from circumstances beyond the bank's control. If there had been any fault in the conduct of the bank, he reasoned, it was on the side of too great restriction of its notes during the panic, and not that of enlarging its issues. The danger of the suspension and of the issuance of small denomination notes was chiefly among the unsophisticated.

Thornton saw a relationship between deposits and notes, in that the right to draw in the one case was equivalent to the possession of the note in the other. Bank notes was the only one of the "disposeable effects" of the Bank of England that it had power to increase or decrease at its own option. If disposeable effects remained the same, loans had to increase in proportion to decreases in gold. Large loans were not the cause of coin leaving the bank, but the effect. The errors of the Bank of England, according to Thornton, were that it assumed that as the gold of the bank lessened, paper, or loans, should be reduced; and that it relied on the idea that no danger existed in any extension of discounts or paper issues, provided only that real bills of responsible houses were discounted. The policy of the Bank of England concerning the regulation of its paper issues should be as stated in Section I of this Chapter; and it would be a mistake, Thornton was convinced, for the bank to let the wishes of merchants or of the government determine the quantity of the bank note issues.

The country banks, Thornton was sure, depended on the Bank of England; and in times of distress the country banks tended to restrict their issues. Thornton enumerated the advantages of the country banks as: accommodating those engaged in commerce; furnishing the place where money could be kept safely at interest; distributing one man's surplus to another; maintaining barriers against speculation; issuing paper which added to the productive capital of the country; adding to the supply of grain by lending for investment in improvements in farms; and providing the public with revenue from the tax on bills and notes. The major disadvantage of the country banks, Thornton asserted, was their tendency to produce failure of paper credit, derangement of commerce, and decrease in the demand for manufacturing labor. Other disadvantages he enumerated were: many holders of country bank notes could not judge the relative credit of the various issues; when some issues failed, there was a tendency for all to share the same fate; the restriction of their notes by country banks during a period of danger subjected the notes to great fluctuation and the Bank of England had to supply gold; the additional capital given to the country could not be measured by the amount of the notes issued, because there had to be deducted the gold the country banks held and the gold the Bank of England held to meet their demands; and the issuance by country banks of notes of small denomination was a danger to the monetary standard. Though a general increase of paper raised prices, that statement could not be made about country bank paper.

During the restriction of cash payments, as Ricardo pointed out, the Bank of England had exclusive power to limit the circulation of bank

notes; and the increase in the note issue he considered the responsibility of the Bank of England, since it regulated the quantity of country bank paper. Ricardo believed that the Bank of England was making too much profit from its dealings with the government, although he cast no suspicion at the current directors. Also, Ricardo blamed the failure of Peel's bill on the action of the Bank of England in purchasing gold to provide metallic currency. He suggested a plan for the establishment of a national bank, after overcoming earlier doubts that the issue of paper would be safe in the hands of the government. In Ricardo's discussion of the operations of his proposed national bank, he suggested the buying and selling of government securities as one of the means of regulating the circulating paper.

IX. CAPITAL AND PROFIT

Adam Smith distinguished two kinds of stock of the country: capital goods and consumption goods. The capital goods were made up of fixed capital (that which afforded profit without changing owners) and circulating capital (provisions, materials, finished work, and money). The expense of maintaining fixed capital--and the money supply--was a reduction of the net revenue of society. Smith said that money, the great wheel of circulation, was not to be considered a part of the revenue of society. To the extent that the gold and silver freed by the circulation of paper added to the maintenance of industry it would constitute an addition to annual production. It was, Smith indicated, perhaps

impossible to determine the proportion which circulating money bore to the whole value of the annual production it circulated.

In discussing paper money, Thornton pointed out that capital (bona fide property) did not consist of paper, nor could it be increased by an increase in paper. The rate of mercantile profit depended on bona fide capital and not on the nominal value an increased issue of paper might impart.

For Ricardo, also, profits were not increased nor decreased by the quantity of bank notes, but affected by capital other than the circulating medium.

Malthus complained that no writer was sufficiently aware of the influence of a different distribution of the circulating medium on capital. He felt that increased paper issues redistributed money into the hands of more productive members of society.

X. INTEREST

Interest was compensation for the use of money, according to Adam Smith. The profit belonged partly to the borrower, who took the risk, and partly to the lender who made the enterprise possible. A loan was considered capital by the lender, and probably it was used as capital by the borrower. As annual production increased, it would become more and more difficult to employ capital profitably, while at the same time capital available for lending was increasing--therefore, interest rates, as well as profits, would fall. Smith did not agree with Locke and Law that an increase in the quantity of gold and silver decreased interest.

Thornton considered interest to have an important bearing on monetary activity. Concerning the effect of interest rates on the quantity of money, Thornton asserted that the lower the rate of interest, the greater the danger of excessive paper issues; and the fact that the Bank of England was forced by the usury laws to charge no more than five per cent, even when mercantile rates were higher, aggravated the demand for loans. The drain of cash, resulting from excessive paper issues, was most likely to occur when the rate of interest at the bank was less than the actual rate in the market. The rate of interest was not increased nor decreased by the quantity of bank notes, but by capital other than the circulating medium. Thornton suggested that the volume of bank loans might be controlled by means of the rate of discount, if the rate were not limited by the usury laws.

Ricardo said that applications to the Bank of England for money depended on the relationship between the rate at which the bank was willing to lend and the rate of profits from the use of money. If the bank charged less than the market rate of interest, there was no amount of money it might not lend. According to Ricardo, however, what the directors of the Bank of England thought would be a check--the rate of interest on money--was no check at all of the amount of issues, as Adam Smith had proven.

XI. BALANCE OF TRADE

Smith considered coin as going abroad just because of overfull circulation at home, and left the balance of trade out of his

consideration of excessive paper; however, Thornton argued that every increase of paper increased the price of goods, thereby employing more circulating medium, so that the circulation could never be said to be overfull. The coin, he said, left for a better market.

The balance of trade, Thornton believed, could not continue very long either very favorable or very unfavorable to a country, because too much bullion would accumulate in the prosperous nation; and it would not want to lend, nor would the borrowing country want to borrow, an unlimited amount. In spite of the tendency toward balance, great inequalities sometimes arose.

Thornton and Malthus agreed that variations in the exchange rates could arise not only from a deficiency or redundancy of currency, but also from changes in the desires and needs of the nations involved. Ricardo, however, attributed a favorable or unfavorable exchange only to the quantity of currency.

Malthus and Ricardo agreed, however, that the circulating medium was depreciated by excess and increased in value by deficiency, compared with demand; and that an excess or deficiency of currency was only relative and the circulation of a country could never be excessive except in relation to other countries. Variations of exchange with foreign countries, Ricardo maintained, could not long exceed the expense of transporting and insuring the precious metals.

To discover whether pressure from scarcity of bank notes tended to make the importation of bullion profitable, since gold will come in to balance trade, Thornton said it was necessary to examine how the pressure

affected the quantity of goods exported or imported. Low prices at home would tempt merchants to export for a better market, however; eagerness to sell would be coupled with reluctance to buy, goods would be sold to raise money, payments to manufacturers would be delayed, sales of manufacturers would be suspended and operations slackened, manufacturing labor would decrease, and production of exportable goods would be discouraged. It might not be possible to decrease imports, either, because of the need for corn after bad harvests and the undesirability of limiting the importation of raw materials or goods for resale.

If a harvest failed, the necessary imports were almost immediately paid for, Thornton observed, but the means of payment were supplied more gradually through limitation of private expenditure, or increase of individual industry; thus temporary pressure arose at a time of a very unfavorable balance.

At the time of an unfavorable balance of trade, as from a bad harvest, the country needed corn but did not have sufficient goods to supply in return, or, Thornton saw, the goods it had were not in sufficient demand. Gold, therefore, was used to make part of the payment. If all of the payment were to be in goods, then goods must be made cheap. It would seem, he pointed out, that paper, therefore, should be decreased; however, there arose certain other questions. The bank in producing the low price might so depress industry and trade as to impair the chance of rebuilding the wealth necessary for restoration of the balance of trade. If the low price caused sufficient alarm at home, there would also be an increased demand at home for gold. To improve

the balance of payments it was necessary only for pressure for payment to lessen; the debt did not have to decrease.

Although war increased the price of goods, the extent to which they were raised beyond the point where they were consistent with the general maintenance of the exchange and remained at that point, it would be the excessive quantity of notes of the Bank of England that would be the cause of the high price of goods, rather than the high price of goods being the cause of the increased quantity of Bank of England notes.

CHAPTER VII

EVALUATION OF THE MONETARY THEORY OF THE EARLY ENGLISH CLASSICISTS

In evaluating theories of money presented by different thinkers, it is important to bear in mind the influence exerted upon them by the circumstances of the times in which they lived. The ancient writers, for example, viewed monetary affairs from a moral standpoint; however, by the time of St. Thomas Aquinas commercial development had progressed to such an extent that he modified the usury doctrine. The industrial revolution, which separated the worker from ownership of the materials and of the finished product, then from ownership of his working equipment, greatly extended the need for money and the effect of its use. The mercantilists, as Viner said, "wanted more money because they regarded money not merely as a passive means of exchange but as a force, acting through its circulation from hand to hand as an active stimulus to trade."[1] During the mercantilist period, the important lack of means of exchange was emphasized by inadequacy of credit facilities supplementing the money supply. At least some of Thornton's criticisms of Adam Smith's doctrine can be accounted for by the changed conditions in the quarter of a century after Smith wrote, and by the fact that Smith's main consideration was a criticism of the mercantilist theories. The extensive

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[1] Jacob Viner, Studies in the Theory of International Trade (New York: Harper and Brothers, 1937), p. 36.

discussions of monetary matters in the early 1800's stemmed, of course, from the causes and effects of the Restriction, the Bullion Report, and the Resumption.

I. RESUME OF MONETARY THEORY BEFORE ADAM SMITH[2]

Those who turned their attention to the theories of money and banking between 1776 and 1821 had available to them a heritage of the writings of those who had considered such matters before them, from Aristotle to Condillac.

The recognition of money as a medium of exchange and as a standard of value was as old as Aristotle, and the qualifications of a good money were set forth in the 1300's by Oresme.

The beginnings of the quantity theory of money can be traced to Bodin, writing in 1568; while Potter and Maddison, in the mid-1600's, showed an understanding that the liabilities of a bank might circulate as money.

Writing in the latter part of the seventeenth century, the remarkable Sir William Petty considered the velocity of money an important part of the effectiveness of a given quantity, but did not recognize that changes in velocity might compensate for changes in quantity. Nor did Petty see the influence of circulation on prices, considering, rather that circulation affected the volume of transactions. However, Petty did

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[2]For greater detail and acknowledgment of sources of information, see Chapter II, *supra*.

see the possible effects of the quantity and velocity of money on employment and production.

Petty considered interest a reward for giving up the use of money; and he recognized the effect of currency debasement on creditors and on people with fixed incomes.

John Locke wrote about the same time as Petty and expressed similar ideas; however, he recognized the importance of the volume of trade. Hoarded money, he pointed out, having no velocity, was not part of the effective quantity of money influencing prices. Locke was perhaps the first of the English economists who described all essential elements of the quantity theory of money.

Interest, for Locke, was the price of the hire of money and was an effect rather than a cause.

The only effective way, Locke believed, to maintain and to increase the country's money supply was by means of a favorable balance of trade; he further believed that the wheels of trade were driven by money in circulation, and that a certain proportion of money was necessary for driving a particular portion of trade. Locke saw the relationship between the rapidity of circulation and the varying needs of people, earning different kinds of income, to hold money for transactions. Petty had looked at velocity from the viewpoint of spending rather than holding money.

Barbon felt it was a mistake to analyze trade in parts, and he was concerned with how it might best profit the nation"--a prologue, it has been said, to macro-economics. To Barbon, interest was a payment for the services of the investment goods created by the loan.

Like Barbon, North was concerned with aggregate analysis, and his writings, also, involved examinations of the principles of trade. He agreed with Barbon that interest was a payment for the services of the investment created, and related the supply side of the loan market directly to a surplus of savings remaining after a part of income was spent on consumption. Like Locke, North considered the supply of funds available for lending as dependent on the interest rate, although he was more interested in the dependence of the supply of loan money on the level of trade and income.

In the early part of the eighteenth century, John Law showed the world some of the advantages of paper money, under conditions of sound banking; however, he also demonstrated the disastrous results of mishandling a paper circulation. He left Berkeley and others who followed him concerned with the problem of how to achieve the benefits of a paper currency and avoid the abuses. Both Law and Berkeley thought money should be increased in amount, and that bank money was the best means to accomplish the expansion--not the balance of trade. Berkeley considered money useful to the extent that it promoted industry and employment.

Cantillon made a major contribution to the pre-classical monetary theories. He felt an increase in money led to an increase in consumption and an increase in the rapidity of circulation. The level of demand, he said, depended on the money supply, through induced profits and incomes. However, he did not suggest that money should be brought into existence to create demand. The increase in consumption brought about by the increase in money caused uneven price and income increases.

It was evident to Hume that the greater or less plenty of money is of no consequence since the prices of commodities are always in proportion to the amount of money. However, an abundance of money would cause a loss when manufacturers moved to other areas, lured by low prices. Hume was against banks and paper money. Like Cantillon, Hume noted the uneven progress of some price and income increases in relation to others. He considered the interval between the acquisition of money and the rise of prices the only time that increasing gold and silver was favorable to industry. The quantity of money was not significant--the important thing was to keep it increasing.

Concerning interest, Hume said that however plentiful money might be, it would have no effect, if fixed, other than to raise the price of labor. High interest resulted from heavy demand for borrowing, lack of available funds, and high commercial profits; low interest resulted from their opposites.

Turgot saw money as a very important contributor to economic welfare through purchases and loans; and a low rate of interest, he felt, indicated abundant capital, stimulating enterprise.

In the same year that Adam Smith's epoch-making The Wealth of Nations appeared, Condillac advanced a modification of the physiocratic view. The physiocrats had paid little heed to money, considering the wealth of a nation to reside in its agriculture; however, Condillac pointed out that changes in the quantity of money meant changes in prices, and that the amount of money needed depended on the frequency with which payments were made. Although Condillac admitted that metallic money was

not the first and principal measure of wealth, he recognized it as true wealth.

II. ADAM SMITH

Adam Smith criticized the mercantilists for confusion between the precious metals and wealth, a criticism that was largely valid but which avoided the reasons the mercantilists had for desiring large quantities of money. Jacob Viner pointed out that among those reasons was the desire to stimulate a higher level of trade and economic activity, and he concluded that the main concern of those authors was with the balance of trade.[3]

Other writers before Smith had presented some of the doctrines embodied in The Wealth of Nations; however, some of the doctrine of the past (velocity, for example) Smith ignored. Nevertheless, much of his discussion of banking was either original, or at least not previously published.

Concerning the quantity of money, various interpretations have been put upon Smith's statement that the whole paper money of every kind that could easily circulate could not exceed the value of specie alone that would have circulated had there been no bank notes, and that if the circulating paper exceeded that sum it would return to the banks to be exchanged for gold and silver.[4] This statement, which Horsefield

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[3] Viner, op. cit., p. 56.

[4] See pp. 48-50, supra., for detailed quotations from Smith.

considered ambiguous, could be held to imply, he said, that the appropriate limits for a circulation of paper should be the quantity of gold and silver which would circulate in the country if the paper were absent; or Smith may have intended the passage to imply no more than that a paper money which was not abused would automatically conform to a metallic standard.[5] The latter viewpoint was supported by Smith's statement that if banks acted in accordance with the real-bills doctrine, paper money could not exceed the value of the gold and silver that would otherwise circulate.

Niebyl had this to say about Smith's statement on the quantity of money that could circulate: "Obviously the implication of this law was that abundance of money existed at the time of its operations only as far as the demand for money was concerned, but that this demand was not meeting an equally abundant supply."[6]

Further concerning Smith's statement that paper money (and Smith, of course, was talking about convertible currency) could not exceed the value of the specie which would otherwise circulate, Mints said that he "weakened his statement to the extent of saying that 'paper money does

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[5]J. K. Horsefield, "The Duties of a Banker. I. The Eighteenth-Century View," Economica, VIII (February, 1941), reprinted in T. S. Ashton and R. S. Sayers, Papers in English Monetary History (Oxford: The Clarendon Press, 1953), pp. 5-6.

[6]Karl H. Niebyl, Studies in the Classical Theories of Money (New York: Columbia University Press, 1946), p. 68.

not *necessarily* increase the quantity of the whole currency.'"[7] In view of the difference in word usage and in punctuation between the style in which Smith wrote and that of the present, the question might be raised as to whether Smith possibly meant "paper money does not, necessarily, increase the quantity of the whole currency." This, if valid, would remove the seeming contradiction observed by Mints.

Smith had said that if a bank tried to keep more of its notes in circulation than the country could easily absorb and employ, the additional notes would return to the bank for redemption, necessitating the keeping of higher reserves.[8] This statement, as Mints pointed out,[9] is substantially correct formally, because of the clearing balance that would result against the individual bank. However, as Mints saw, Smith actually was talking about banks as a whole not being able to issue more notes than the community could employ. If a bank were to maintain the higher reserve, in disregard of its own interests, the circulation might be overstocked with paper money, Smith added. Concerning Smith's statement that an excess issue would result from the financing of overtrading, or discounting of fictitious bills, Mints said:

> One reasonably might have asked Smith how this could be if notes not "needed" would be returned to the banks. Moreover, Smith could hardly have replied that the notes would be "needed" for overtrading; for then his whole analysis would have fallen to the ground. This possibility of overissue seems not to have been related by Smith to

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[7] Lloyd W. Mints, *A History of Banking Theory in Great Britain and the United States* (Chicago: University of Chicago Press, 1945), p. 25; italics Mints'.

[8] See p. 49, *supra*.

[9] Mints, *op. cit.*, p. 26.

> his assertion that if a bank kept sufficiently large reserves and thereby ignored (as he thought) its own interests, an undue amount of paper could be issued. One infers that he relied upon the restriction to real bills to prevent any excess of issue, in the first place, and upon the doctrine of a "need" for only a given amount of currency to bring about a withdrawal of any excess that by some inappropriate action might get into circulation. Nevertheless, he made no explicit statement to this effect.[10]

If bank notes simply took the place of an equal amount of specie, it would not be possible for banks to make available an elastic currency; yet the real-bills doctrine did offer the mechanism for an elastic currency. Smith, however, did not discuss elasticity as such.

Smith's insistence on convertibility and objections to the issue of small denomination bills (because larger denominations would keep paper money in the dealer-to-dealer stream) seemed to place emphasis on the need for reserves rather than real bills to restrict excess issues of notes. A major part of his theory was, nevertheless, the real-bills doctrine.

Objections to the validity of the real-bills doctrine were raised as early as 1773, by Adam Dickson, but were overshadowed by the Smithian doctrines. Dickson pointed out the inflationary effect of loans, even when based on real bills. Mints asserted that Dickson seemed to be assuming that the rate of turnover of the goods, sales of which provid- real bills, was one a year. "Moreover, he clearly implied that the inflationary effect of bank loans based on real bills varies inversely with this rate of turnover; but precisely the contrary is true."[11] Commenting

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[10] Ibid., pp. 27-8.

[11] Ibid., p. 36.

on the limitational aspects of the real-bills doctrine, in his discussion of Dickson, Mints stated:

> If the volume of transactions is stable, the quantity of money, and hence the price level, will be stabilized, as a consequence of a restriction of discounts to real bills. If the quantities of money and of bills are equal, if velocity is constant, and if the currency is inconvertible. Under conditions of a changing volume of transactions, the price level will be stabilized if these same three conditions are met and if, furthermore, either all transactions create discountable bills or those that do and those that do not produce eligible bills change in the same ratio.[12]

Smith's discussion of the importance of short term loans and prompt payment indicated his feeling that liquidity was essential for sound banking.

Adam Smith cannot be said to have contributed importantly to the advancement of monetary theory, and Horsefield said that the error or at least the ambiguity of the crucial passages in The Wealth of Nations led to

> an overfacile belief that any continuing excess of note-issues above a safe figure was automatically prevented--a comfortable theory reminiscent of John Law. Such a doctrine . . . was dangerously encouraging to a banking community which was far from experienced.[13]

The Smithian doctrines dominated until the early part of the next century. Thornton's criticisms of Smith, which were made in 1802, are covered under the evaluation of Thornton's contributions.

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[12] Ibid., p. 37.

[13] J. K. Horsefield, "The Duties of a Banker. II. The Effects of Inconvertibility," Economica, XI (May, 1944), reprinted in T. S. Ashton and R. S. Sayers, Papers in English Monetary History (Oxford: The Clarendon Press, 1953), p. 16.

III. HENRY THORNTON

Henry Thornton's ideas on monetary affairs were expressed during the period between 1797 and 1811, and certain of the theories he expressed involved direct criticism of the doctrines of Adam Smith, which had been widely accepted.

Against Adam Smith's famous statement that paper money represented the value of the gold and silver of which it supplied the place, Thornton brought several arguments to bear, among them the contention that the concept of velocity rendered Smith's idea untenable. Although a certain understanding of velocity had been shown in the works of the predecessors of the classicists (Petty, Locke and Cantillon), Thornton was unique in treating the rapidity of circulation as varying with the state of business confidence. Not only did different kinds of circulating media have different velocities, but Thornton also noted that the velocity of circulation of the same kind of money varied with the state of confidence. It was the latter contribution which Kuhn considered to be, perhaps, Thornton's most original.[14] Thornton referred to Smith's overlooking the fact that bills of exchange, as well as bank notes, were substitutes for coin, and indicated that the length of credit terms affected the impact of bills of exchange on the quantity of circulating media. He somewhat refined the idea of hoarding, by indicating that the increase in the

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[14] W. E. Kuhn, The Evolution of Economic Thought (Cincinnati: South-Western Publishing Company, 1963), p. 244.

desire to hold specie in times of distress was largely because bankers and shopkeepers needed to hold an additional supply.

Undoubtedly it was Thornton's grasp of the functions of velocity that contributed to his superior understanding of elasticity and liquidity. Elasticity and bank liquidity were implicit in the real-bills doctrine; and in rejecting that doctrine Thornton suggested that the Bank of England should increase its notes when pessimism caused velocity to slow down; and he perceived that it was the desire, at such times, for additional liquidity (on the part of country banks and businessmen) that caused the slowing down of velocity. Thornton's succinct recommendation of policy for the Bank of England showed that he thought the Bank of England should exercise judgment in providing an elastic currency.[15]

Bringing velocity into his discussion of price, Thornton emphasized that the price at which an exchange took place depended not only on the demand for and supply of the commodity, but also on the demand for and supply of the circulating medium, a statement which could be considered to foreshadow Irving Fisher's equation of exchange.

When Thornton commented that a rise in the price of a scarce commodity would be more or less considerable in proportion as the article is felt to be one of more or less strict necessity, it seems as though he were injecting some awareness of the subjective values inherent in the determination of price. He did not pursue the subject, however.

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[15] See p. 115, supra.

Thornton believed, of course, that the price level varied with the quantity of money, but did not expect an exact relationship.

The doctrine that it would be safe to limit the volume of bank notes merely by restricting discounting to real bills failed, Thornton pointed out, clearly showing its defects; yet the doctrine persisted. As Mints remarked, it re-emerged as the doctrine of qualitative control of bank credit.[16]

Thornton presented the concept that the bank rate (as opposed to the real-bills doctrine) could be used as an instrument for limiting paper credit. The usury laws prevented the operation of that doctrine when Thornton was writing, and his ideas were instrumental in the repeal of the usury laws in 1833.

Niebyl credited Thornton with being one of the first to offer theoretical arguments in defense of the advocacy of the repeal of the usury laws; however, he indicated that the movement arose because of a squeeze between the bank rate and the rate of profit, which Niebyl said "was especially true in time of war when overseas trade profits were reduced by increasing risks."[17] Actually, Thornton saw the usury laws as causing inflation because of forcing the Bank of England to lend at no higher than five per cent while the market rate was higher. The amount of loans that would be made, Thornton felt, would be determined by the relationship between the bank rate of interest and the rate of mercantile profit; and the rate of mercantile profit depended on capital,

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[16] Mints, op. cit., p. 10.

[17] Niebyl, op. cit., p. 69.

not on the quantity of money. Hayek saw in this the "first clear foreshadowing of the concept of the Natural Rate of Interest."[18]

Thornton's treatment of the inflationary effect of increases in bank loans, even based on real bills, was excellent in his recognition of several aspects: the diminishing benefit of increases after idle labor had been put to work; the rise in prices caused by the lag between price increases and production increases; creation of additional industry (and higher prices) by increased demand; stimulation caused by the price rise itself, since profits appeared higher; and, very significantly, the doctrine of forced saving.

The role of checks and deposits in monetary affairs was omitted by Thornton, as it was by the other writers of his period. It is true that deposits were relatively small at that time, but banking policy probably should have taken this method of transfer into account as well as bank notes. That Thornton did recognize how deposits were used (if not the effect of that use) is shown by his reference to the fact that a large portion of what were considered cash payments were handled at that time without bank paper, but merely by the transfer of the debts of one merchant to another on the books of a bank; and that a much larger sum would be so transferred if there were no bank paper.[19] Thornton did not, however, consider the function of deposits in his system. Thornton had said that it was, in substance, the same thing whether a person deposited

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[18] J. K. Horsefield, "The Duties of a Banker. II . . . ," p. 26.

[19] See p. 80, supra.

money with a bank, not taking a note but instead the right to draw a draft on an account, or whether he deposited the money and received bank notes. To the Bank of England, though, the difference was that it was the action of customers, and not the bank's, that controlled deposits (which, he said, fluctuated little), while the bank could itself control the issuance of its notes.[20] Thornton's statement that deposits are generally formed by means of bills discounted showed some understanding that deposits might be derivative as well as primary, which Mints said "no one understood, with the problematical exception of Thornton."[21] There was, Mints pointed out, "nearly complete failure to recognize the full significance of deposit banking."[22] Viner confirmed that the bullionists had either overlooked bank deposits or did not consider them currency.[23]

Thornton was perhaps somewhat too zealous in his assertions that the lending of the Bank of England to the government had no effect on the quantity of money. His claim that it was the quantity of notes, and not how they came into circulation, that counted, may be difficult to deny; however, it does not take into consideration the increased problem presented to the bank in controlling the total quantity of those coming into circulation through government borrowing. It would have to be assumed, if the Bank of England wanted to maintain the amount of its notes in circulation, that merchants would always be willing to take up any slack

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[20] See p. 86, supra.

[21] Mints, op. cit., p. 43.

[22] Ibid.

[23] Viner, op. cit., p. 130.

created when the government repaid loans; and vice versa. Thornton was subject to criticism on this matter in the generally favorable contemporary review of his Paper Credit written by Francis Horner.[24]

Although Niebyl pointed out that Thornton did not elaborate on the role of country banks in providing an expanding productive society with the needed capital, it could be mentioned that Thornton did give the country banks credit for adding to the production of grain by loans to farmers for improvements.

Thornton was a member of the Bullion Committee and undoubtedly contributed to its work. To what extent he arranged its appointment, or wrote the report, is apparently not known.

Ricardo, in the High Price of Bullion, suggested that Thornton, whatever his previous opinion might have been, by then would doubtless agree that an unfavorable exchange was accounted for only by the depreciation of the currency.[25]

In 1802, in the Paper Credit,[26] Thornton stated that the movement of gold depended on the quantity of the circulating medium, or on the balance of trade, if that balance were admitted to depend on the quantity of circulating medium issued. In his discussion of price increases caused by war, Thornton suggested that it should be borne in mind that if prices were permitted to rise above the point consistent with the general maintenance of the exchange rates, that so far as they permanently remained

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[24]Francis Horner, "Article XXV. Thornton On the Paper Credit of Great Britain," Edinburgh Review, I (October, 1802), 197.

[25]See pp. 130-1, supra.

[26]See p. 114, supra.

above that point, it was the excess of Bank of England notes which should be considered as the cause of the high price of goods, rather than vice versa.

Thornton made a distinction between internal and external drains (and between external drains that are, or are not, caused by an excess of paper currency). Concerning an internal drain, Thornton had said in 1802 that a high price of bullion caused by an alarm in the country (internal drain) might be aggravated by a reduction in the quantity of Bank of England paper. In his statement of policy for the Bank of England, his recommendation had been to expand notes temporarily for an internal drain; and to "lean on the side of diminution, in the case of gold going abroad, and of the general exchanges continuing long unfavourable."[27] He was fearful of the effect of reduction in the quantity of money on output.

Thornton believed, in 1802, that bad harvests, or other changes in commodities, and foreign expenditure of the government, as well as excess currency, could affect the exchange; and he still believed that in 1811.[28]

In 1802, believing that the actions of the Bank of England had been sound, Thornton attributed the unfavorable exchange to two successive bad harvests. However, the unfavorable exchange which existed in 1802 was not temporary, but had continued and even worsened, and the exchange, Thornton said in 1811, could no longer be corrected by transporting specie.

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[27] See p. 116, supra.

[28] See p. 123, supra.

Hence, in 1811 Thornton emphasized the depreciation of the currency as influencing the exchanges and raising the price of bullion--a definite change from his 1802 position. However, it does not seem that Thornton did, in fact, change his opinion to the extent of considering currency depreciation as the only cause of an unfavorable exchange, as Ricardo indicated might have happened.

At the point of that suggestion by Ricardo, Sraffa included, in a footnote, the following:

> In a speech in the House of Commons, on 14 May 1811, Thornton acknowledged the change of his opinion. Referring to "that dangerous doctrine" according to which the high price of gold "was no indication of an excess of paper or of a depreciation of it, but was simply an evidence of an unfavourable balance of trade" he said: "it was an error to which he himself had once inclined, but he had stood corrected after a fuller consideration of the subject."[29]

The complete quotation[30] indicates a possibility that Thornton may have been referring not to the doctrine, but to the remedy that seemed to be suggested by it--promotion of national industry, which might imply additional issues of paper to stimulate manufacturing and increase exports.

IV. DAVID RICARDO AND THOMAS MALTHUS

Thomas Malthus had little to say on the subject of monetary theory except in the reviews he wrote for the Edinburgh Review on the pamphleteers of the bullion controversy. There he found fault with Ricardo's partial

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[29] Piero Sraffa, ed., with the collaboration of M. H. Dobb, The Works and Correspondence of David Ricardo (Cambridge: The University Press, for the Royal Economic Society, 1962), III, 83.

[30] See pp. 122-3, supra.

view of the causes affecting the exchange, and seemed to share Thornton's view that, in addition to changes in the quantity of the currency, the exchanges were affected by changes in the balance of trade.

Malthus showed considerable insight in his remarks concerning the effects of changes in the quantity of money on its distribution. His recognition that between the time of a new note issue and increased production, one person's share of production is acquired only at the expense of someone else's, implied the forced savings doctrine. It was price increases that caused the curtailment of purchases by those who did not also sell.

Malthus' reference to Mushet, as well as to Ricardo, as having his main views supported by the Bullion Report; Horner's writing of " . . . Mr. Ricardo and Mr. Mushet, who called the public attention to this very important subject . . .";[31] and the number of other writers in this area, including Thornton, Huskisson and Horner; were all part of the reasons Fetter gave[32] for branding as legend the persistent idea that Ricardo played the major role in the appointment of the Bullion Committee, and inspired, if not actually drafted, its report. Silberling expressed surprise at "the statement in Alfred Marshall's recent volume, Money, Credit and Commerce (p. 41), that 'Ricardo was one of the powerful

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[31]Letter from Francis Horner to Francis Jeffrey, July 16, 1810, quoted by Sraffa, op. cit., III, 9-10.

[32]F. W. Fetter, "The Bullion Report Re-examined," Quarterly Journal of Economics, LVI (August, 1942), reprinted in T. S. Ashton and R. S. Sayers, Papers in English Monetary History (Oxford: The Clarendon Press, 1953), pp. 67-8.

thinkers, who wrote the great Bullion Report of 1810."[33] Silberling continued that a similar error had been made by "Joseph French Johnson (Money and Currency, new edition, p. 292) in stating that Ricardo was a member of the Bullion Committee."[34] Fetter cited a number of other writers who gave Ricardo credit for instigating the Bullion Report; however, Fetter believed these writers were confusing the Ricardo of 1819 with the Ricardo of 1810 and ignoring the extensive writings of the other individuals involved. Fetter said that to support the doctrinal or political influence of Ricardo on the Bullion Report, "no supporting evidence is to be found other than a general tradition that feeds on itself."[35] Silberling, on the other hand, concludes: "That Ricardo influenced very greatly the opinions contained in the Report, however, is undeniable."[36] In February, 1811, The Quarterly Review published a review of a number of pamphlets concerning the bullion controversy, including Ricardo's, and referred to "The Bullion Committee, (with which Mr. Huskisson is considered as identified) . . ."[37] The only mention of Ricardo in the review was the

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[33]Norman J. Silberling, "Financial and Monetary Policy of Great Britain during the Napoleonic Wars," Quarterly Journal of Economics, XXXVIII (May, 1924), p. 430.

[34]Ibid.

[35]Fetter, op. cit., p. 67.

[36]Silberling, loc. cit.

[37]"Art. XI. Tracts on the Report of the Bullion Committee. Chalmers,--Hill,--Bosanquet,--Ricardo,--Atkinson,--E. Thornton,--Rutherford,--Lyne,--Cock,--Coutts Trotter,--Fonblanque,--Eliot,--Smith,--Wilson,--Hoare,--Maryatt--on the Report of the Bullion Committee," The Quarterly Review, V (February, 1811), p. 242. The "E. Thornton" here referred to was a dealer in exchange for the government, having resided at Hamburg.

comment that, of the pamphlets in favor of the Bullion Report, the "two principal" already had been reviewed, "that of Mr. Ricardo, and the important publication of Mr. Huskisson."[38]

To Jacob Hollander it seemed, quite reasonably, that it was not the influence of the High Price of Bullion on the writing of the Bullion Report that was responsible for Ricardo's name being so closely linked with it, but rather his later defenses of its doctrines against all criticisms.[39]

Using as his source an anonymous writing attributed to J. Lancaster, a stock exchange contemporary of Ricardo's, Silberling strongly indicated that Ricardo's attack on the Bank of England in the High Price of Bullion was instigated to benefit Ricardo in his personal stock exchange activities, and that it was for the same reason that "working through his friend Francis Horner, who now sat in the House of Commons, he began at once to agitate his program in Parliament."[40] No evidence was found of others who shared Silberling's opinion.

Ricardo, like Thornton and the other bullionists, opposed the real-bills doctrine, but only Ricardo clearly recommended the establishment of a national bank, under the control of Parliament, to carry out monetary policy. In his recommendation for the establishment of a

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[38] Ibid., p. 259.

[39] Jacob H. Hollander, "The Development of the Theory of Money from Adam Smith to David Ricardo," Quarterly Journal of Economics, XXV (May, 1911), 470.

[40] Silberling, "Financial and Monetary Policy . . . ," pp. 429-30.

national bank, Ricardo deserves credit for clearly setting forth the possibility of use, by the central bank, of the purchase or sale of government securities as one of the means to regulate the quantity of money.

Ricardo picked up from Thornton the idea of the role of interest in monetary affairs, and therefore believed that the amount of loans depended on the difference between the bank rate of interest and the yield on capital. His criticisms of the Bank of England were partly the result of his feeling that it could deliberately keep interest rates low and stimulate inflation, when notes were inconvertible. Nevertheless, he said that the bank directors could not control the amount of issues by means of the rate of interest. The usury laws did, as Thornton had carefully noted, interfere with control of issues through the bank rate.

The failure of Ricardo to subscribe to the doctrine of forced saving was in disagreement with Thornton and Malthus; however, with Ricardo's strong feeling about the overissue of the Bank of England notes, he may have found it difficult to acknowledge that any capital formation could come from inflation, even by the route of forced savings.

The emphasis on the overissue of bank notes as the only cause of inflation constituted a major error in Ricardo's monetary theory.

For better or for worse, Ricardo was destined to be the most influential of the classical economists in the area of monetary theory. His influence was felt in the Bank Charter Act of 1844; and the plan for conversion into bullion, which Ricardo wanted to see become a permanent banking reform, was adopted temporarily in Peel's bill; but the gold

bullion system adopted in 1925 in England traces its origin to Ricardo's so-called Ingot Plan.[41] Thus, even after his death, his influence was as great as it had been at the time of the resumption of payments.

V. INFLUENCE OF EARLY ENGLISH CLASSICAL MONETARY THEORY

The classical doctrines dominated economic thought from the time of the mercantilists until the rekindling of interest in the pre-classical literature in the last several decades, since the Keynesian revolution. For the most part, in the area of monetary theory, the classical influence was represented by the ideas of Ricardo, who overshadowed the more original Thornton in areas where he agreed with him, as well as in areas where he did not.

The real-bills doctrine of Adam Smith, repudiated by Dickson even before it was promulgated by Smith, attacked with devastating logic by Thornton, and rejected by Ricardo, nevertheless survived strongly enough to provide major theoretical backing for the Federal Reserve Act of 1913. Presumably the real-bills doctrine insured against inflation caused by overexpansion of bank credit, provided an elastic currency, and assured bank liquidity.

The doctrine, presented by Thornton and adopted by Ricardo, that the relation of the quantity of money to the price level was indirect,

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[41] R. S. Sayers, "Ricardo's Views on Monetary Questions," Quarterly Journal of Economics, LXVII (February, 1953), reprinted in T. S. Ashton and R. S. Sayers, Papers in English Monetary History (Oxford: The Clarendon Press, 1953), pp. 92, 95.

operating through the market rate of interest, was later taken over by John Stuart Mill. This involved the theory of the natural and the market rate of interest, which was later, but independently, rediscovered by Wicksell.

Although the Federal Reserve System came upon the idea of open market operations as a means of regulating the supply of money simply through circumstance rather than by any insight shown in the Federal Reserve Act, the concept could have been found in Ricardo's concept of the functioning of a national bank.

The quantity theory of money, beginning, as is usually stated, with Locke (his possible debt to Petty not generally acknowledged), served to point up the belief of the classicists that money was not wealth; however, it led to the error, perpetuated until corrected by Keynes, that money served only as a medium of exchange and not as a store of value.

There was a general lack of comprehension by the early classicists of the role of deposit banking, which hampered the development of a more sophisticated monetary theory. Conceivably, also, their concentration on the long run interfered with a better understanding of monetary affairs.

The belief of the classicists in the tendency toward full employment and the consequent continued use of monetary policy only, to cure what were considered to be temporary set-backs, prevented recognition, until the Keynesian era, of the importance of government interference in the business cycle by means of fiscal policy, in the attempt to achieve economic growth with a maximum degree of stability within the framework

of an advanced capitalistic economy. In addition to misunderstanding the possible role of government spending in times of depression, the classicists failed to recognize the possible effect of government spending on the inflationary forces in the economy. Under the philosophy of laissez faire, the fact was overlooked that the fiscal policies of government would affect the economy, intentionally or otherwise. The anti-bullionists, who favored the real-bills doctrine; and the bullionists who, in 1811, felt the quantity of money was to blame for inflation, both overlooked the important fact that England had been spending large sums of money abroad, a factor Thornton had earlier recognized as affecting the exchange rates. The major difference between Henry Thornton's ideas and those of David Ricardo was that Thornton saw an excess issue of bank notes as only one of several possible causes of inflation, while Ricardo allowed for no cause of inflation except the overissue of bank notes.

Additional study would be appropriate to analyze the relationship of classical monetary theory to modern theories, and to elaborate on the areas of weakness in the popularized (and hence influential) classical doctrine where possibly sounder doctrine was available either from past or from contemporary sources.

Thornton was accepted as an authority in his own time by at least some members of Parliament (particularly Francis Horner) and by the editors of The Quarterly Review, who said, " . . . on the subject of paper-credit, Mr. Thornton is the only writer whom we have found at all

satisfactory, or to say the truth, who appears to understand it."[42] Yet it was Ricardo's influence which was widespread and long lasting. Why this should have been is probably impossible to resolve, but factors that might have contributed are these: Ricardo's devotion to the subject of economics, while Thornton's major interests in life were religion and charity; Ricardo's over-all interest in the field of economics, rather than the relatively limited area of monetary theory, where Thornton's interest in economic affairs centered; or, perhaps, as Schumpeter suggested, Thornton's own lack of emphasis on the results of his work. "He was one of those men who see things clearly and who express with unassuming simplicity what they see."[43]

Ricardo's ideas did prevail. That such a simple quantity theory view--that the depreciation of the currency was caused solely by an excess of supply--should be taken by one of such influence as Ricardo was, as stated by Sayers, "a major disaster."[44] Or, as Schumpeter put it, " . . . in matters of monetary as of general theory, Ricardian teaching is a detour and . . . slowed up the advance of analysis, which could have been much quicker and smoother had Thornton's lead been followed--had Ricardo's force not prevailed over Thornton's insight."[45]

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[42] The Quarterly Review, III (February, 1810), 157, in a review of The High Price of Bullion, A Proof of the Depreciation of Bank Notes, by David Ricardo.

[43] Joseph A. Schumpeter, History of Economic Analysis, edited from manuscript by Elizabeth Boody Schumpeter (New York: Oxford University Press, 1954), p. 689.

[44] Sayers, op. cit., p. 79.

[45] Schumpeter, op. cit., p. 704.

The quantity theory of money still is very much alive, and finds its most vigorous advocates at present in Milton Friedman and his supporters. A thorough knowledge of the principles and development of the quantity theory is an essential part of the attempt to formulate an integrated, sophisticated, modern theory of money. It is reasonable to suppose, as Schumpeter suggested, that greater strides in that direction might have been made sooner had Ricardo's ideas not obscured Thornton's.

To those who would today contribute to the formulation of sound monetary theory to form the basis for sound monetary policy, added light cast on the ideas of Henry Thornton is inspirational. The unrealized potential of Thornton's contribution warns of the impediment to progress when doctrine, accepted without question, becomes dogma.

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