Reexamination of Thornton's Innovative Monetary Analysis: The Bullion Debate during the Restriction Once Again

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The Restriction period began in England in February 1797 when, under the shadow of a run on the banking system, the sovereign suspended the specie convertibility of the Bank of England's notes. The suspension of cash payments remained in effect until 1821 and marked a crucial turning point for both banking theory and monetary policy.

Founded in 1694, the Bank of England was a private institution with privileges; it was the only bank in London whose charter permitted it to issue notes within the city and its vicinity. The "London private banks" did not issue notes but dealt with all other aspects of banking; the "country banks" faced almost no legal restrictions concerning issuing notes outside London. Hence, the Bank of England enjoyed a monopoly in issuing notes in London and its vicinity. The heavily capitalized Bank of England, which financed public expenditures and held reserves for the other banks, thus became the pivot of the British banking system. However, the implications

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of the unique place held by the Bank—implications of which Henry Thornton was well aware—were almost forgotten and not fully understood again until Walter Bagehot published *Lombard Street*, about the role of the Bank in London, in 1873. In hindsight, it was the Bank's powerful position, particularly its central position concerning reserves and its monopoly in note-issuing in London, and its failure to understand its consequent responsibilities, that made it the focal point of a controversy within the British economic system that lasted over seventy years.

The French War years around the turn of the nineteenth century witnessed a period of intense economic debate in England. The debates during the Restriction period on the complicated relationship between inflation, the exchanges, and monetary control came to be known as the "bullion debate." The name refers to a prevalent Restriction-era conversation about the reasons for the fluctuating market price of gold and the advisability of a return to specie convertibility. The bullionists were critical of the Bank of England and supported an early return to convertibility; the anti-bullionists defended the Bank's behavior and inconvertibility.[1] Debate about the reasons for the discrepancy between the pre-Restriction mint price of gold, which was fixed, and the market price of gold continued into the nineteenth century, fluctuating in intensity, as Jacob Viner (1937) and Frank W. Fetter (1965) point out, with gold's market price. The controversy intensified when the price of gold in terms of inconvertible notes was high and the exchanges were bad (as in 1800–1801 and 1809). These debates proved fruitful insofar as they culminated in attempts to formulate theories tenable in situations of inconvertibility. The debates extended to the relationship between internal circulation and international movements of gold and commodities; to the influence credit and banking had on the economy as a whole; and to a new assessment of the Bank of England's role in the monetary system.

The first round in the debate between 1801 and 1804 started with publications by the bullionist Walter Boyd (1801a, 1801b) and the anti-bullionist Francis Baring (1801). Viner (1937), Fetter (1965), Denis O'Brien (2004), and Friedrich Hayek ([1929] 1991), among others, present Boyd, Peter King, Francis Horner, and Henry Thornton as the main bullionist contributors to the debate.[2] This latter group of writers is often referred to

1. See Jacob Viner's (1937, 120) definition of *bullionists* and *anti-bullionists*.

2. See Viner 1937, chap. 3, especially 119–22; Fetter 1965, chap. 2; O'Brien 2004, chap. 6, 175–81; and Hayek [1929] 1991, 197. Although Hayek's 1929 paper was not published until 1991, Thornton's ideas were important to Hayek's intellectual development (see the editors'

by scholars as the "moderate" bullionists, as opposed to the "extreme" bullionists such as John Wheatley and David Ricardo. Baring is usually described by scholars as the only serious anti-bullionist.

In the earlier secondary literature one can find a different categorization. Jacob Hollander (1911) associates Thornton with the anti-bullionists. However, he does not think highly of him as do later scholars, and in fact argues that Thornton's stance on inconvertibility is untenable. Thornton was in his view "handicapped by his partisan espousal of the cause of the Bank" (450–51). He confuses Henry Thornton with his brother Samuel, who was a Bank director, which may explain his partisanship claim. James Angell's account of Thornton's writings is similar to that of Hollander: he also confuses Thornton with his brother and erroneously describes him as "a Director of the Bank of England, and hence a staunch defender of its policy" (Angell [1926] 1965, 46).

Historians of economic thought have debated the reasons for Thornton's prolonged disappearance from the canon of monetary theory. An emerging consensus contends that Thornton's views, although often not attributed to him, remained influential by virtue of their impact on other major thinkers, especially from the banking school (e.g., Tooke; see Skaggs 1995, 2003).[3] Thanks to the efforts of Hayek, Thornton's pathbreaking book *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain*—first published in 1802 and considered by Hayek to be a response to Boyd—was republished in 1939.

Hayek's celebrated introduction to the 1939 republication secured Thornton's place in the history of monetary theory by overturning previous scholarship[4] and recognizing Thornton's momentous achievements. Hayek addresses the consistency of the views Thornton advocates in *Paper Credit* and emphasizes the differences between the first part of the book—"devoted to pointing out the dangers of an excessive contraction of the issue of paper" (labeled "deflationary" in the secondary literature)—and

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comments in Hayek [1929] 1991, 127). Hayek's deep appreciation of Thornton may explain his decision to republish Thornton's *Paper Credit* ten years later, in 1939, and to write the famous introduction to the republication. However, in 1939, unlike his colleagues Viner and Fetter and his own 1929 text, Hayek did not repeat the association of Thornton's theoretical stance with that of the moderate bullionists. I will return to this point below.

3. See also Arnon 1991, 28, 48–49, 76. But Arnon as well erroneously identified Thornton as a moderate bullionist. See also Peake 1978, 1982, 1995; Beaugrand 1982; and Arnon 1987.

4. "Although Thornton's merits have long been overshadowed by the greater fame of Ricardo, it has now come to be recognized that in the field of money the main achievement of the classical period is due to Thornton" (Hayek 1939, 36).

the later sections, where Thornton primarily addresses "the effects of an absolute increase of the circulation" ("inflationary"). Hayek (1939, 45–48) argues that it is in the latter parts of the book where Thornton discusses inflation and foreign exchanges that his "best-known achievement" appears.

Like Hayek, many observers agree that there are at least two Thorntons in that great work. John Hicks (1967), in "Thornton's Paper Credit (1802)," emphasizes the "change in the character of the historical situation that is being considered" (181), while insisting on the conformity of Thornton's "Keynesian" positions.[5] However, Hicks also argues that in the second part of the book Thornton shows "the other side of the medal; the danger of maintaining inconvertibility when it was not necessary" (181). Moreover, Hicks claims that "Thornton always believed in the Gold Standard," while adding, "that looks a surprising statement, in view of his support of the 1797 Restriction."[6] By establishing Thornton's principled support for a non-gold standard, I expect that surprise will fade.

In a recent exchange, Antoin E. Murphy (2003, 2005) and Neil T. Skaggs (2005) returned to these issues. Murphy argues that there were three, not two, Thorntons. The first two, as suggested by Hayek and Hicks, criticize deflation in the early parts of the work and inflation in the latter parts. Murphy (2003, 447–51) adds a third Thornton: a supporter of nonmetallic money. Skaggs's (2005) comment on Murphy agrees with Murphy's description of the first Thornton, the antideflationist, while disagreeing with him on the second and third. In Skaggs's view, there is only one persona—no schizophrenia, and no internal contradictions—that adheres to stability and to gold as the preferred standard.

The present essay proposes a different reading: Thornton disagreed with Boyd and the bullionists and developed an innovative anti-bullionist position very different from Baring's.[7] In particular, Thornton rejected the Smithian approach. While Baring and the Bank advocated Smith's real

5. "If we look at these introductory chapters alone . . . we must, I think, be of opinion that Thornton has started off on what we should consider a remarkably Keynesian tack. And it is not in this section alone that he exhibits 'Keynesianism'; it persists, as we shall see, into the next round" (Hicks 1967, 177).

6. The proof comes in the form of a quote from a speech in 1811, on which Hicks (1967, 184) commented: "This, to be sure, is 1811, not 1802; but it is incredible that the man who believed this, with such conviction, in 1811 could ever have believed anything else." We will return to this issue below.

7. See Baring's famous tracts at the start of the Restriction (1797a, 1797b) and Baring 1801, to which we will return below.

bills doctrine under inconvertibility, Thornton rejected it together with other Smithian monetary ideas. Thus, maybe he can best be described as a moderate anti-bullionist: one who supported the Restriction but rejected the real bills doctrine. Thornton's association with the bullionists in the secondary literature is due to his public activities and positions on policy after 1802 and to his participation in the 1804 Irish Currency Committee and, most significantly, in the Bullion Committee of 1810. If Thornton can be said to have changed his views after 1802, he did so on a pragmatic level for political reasons; his theories remained unchanged. Thus, although Thornton joined the bullionists in 1810 to recommend an early return to cash payments, his alliance with them did not signal a change in theory but rather his disappointment at the Bank's failure to understand its role. He still believed during the years of the second round of the bullion debate that had the Bank's directors understood the monetary system, inconvertibility could have been maintained.

Thornton constructed the most important monetary theory of his era in defense of an inconvertible system based on discretionary policy. Unlike the bullionists, Thornton did not reject inconvertibility; at times he seemed to refer to it as the superior system: "Gold is by no means that kind of circulating medium which is the most desirable."[8] As with any financial system, though, whether convertible or inconvertible, Thornton insisted on the need to implement a discretionary, that is, monetary, policy. In Great Britain, monetary policy had to be implemented by the Bank of England. Thus, in my view, the "real" Thornton was the third one, and the apparent differences in analyses in the first and second parts of the book are simply the implementation of one framework under two different circumstances. The one consistent Thornton was the innovative monetary theorist whose analysis favored a nonmetallic, managed, monetary system.[9] To fully appreciate the power of Thornton's thinking, one has to recall that two hundred years ago, what twenty-first-century economists think of as a natural and obvious theoretical position on inconvertibility was considered by many to be extraordinarily innovative and unconventional.

8. This quotation is taken from the closing paragraphs of *Paper Credit*. I will return to the full statement below.

9. David Laidler (2000, 8) comes closer to the interpretation in the present article by arguing that "[Thornton's 1802] position in that debate is hard to classify, because though its analytic content places it firmly in the bullionist camp, it nevertheless defends the policies pursued by the Bank of England after 1797." However, I will argue below that Thornton's *Paper Credit* provided an anti-bullionist analysis.

The Bank of England under the Restriction was a private institution, profit-seeking and free from supervisory authority. Although the Bank was legally free to act only in its own self-interest, its directors displayed a profound ignorance of the Bank's pivotal role in the system and how the Bank's policies influenced public interests. What changed for Thornton between 1802 and 1811 was based on his new assessment that the Bank directors failed to apprehend that they had a responsibility to implement proper policies.

Although David Reisman (1971) and David Laidler (2000) describe Thornton as a moderate bullionist in 1802 as well as in 1810–11, they are aware of the changes in his position concerning the Bank's policy. Reisman (1971, 73) writes: "By 1810, [Thornton] may simply have altered his position on events in the real world as he learned the Bank was not exercising what he felt to be adequate discretion." Laidler's (2000, 16) claim is stronger: "By 1810, [Thornton] and his colleagues could have no such confidence in the Bank, given its directors' enthusiastic embrace of the Real Bills doctrine: hence the *Bullion Report*'s emphasis on the urgent need to re-impose convertibility as constraint on their activities." However, even in 1810–11 Thornton would not have rejected the feasibility of inconvertibility as a matter of principle had the Bank understood its discretionary role.

In the introduction to *Paper Credit*, Thornton states that the "general treatise" consists of two parts: the early chapters address "the evil of a too great and sudden diminution of our circulating medium"; the "latter . . . are employed in pointing out the consequences of a too great augmentation of it" (68). As we will see below, both parts contain penetrating and innovative ideas, some of which disappeared for a long time from more conventional monetary thought. I will argue that in the two parts of *Paper Credit*, Thornton writes as an anti-bullionist within one consistent conceptual framework that allows him to explain the causes of changes in various monetary aggregates, linking them to both nonmonetary internal economic developments and to international trade.

Thornton gives sophisticated explanations for both the deflation years before 1797 and the inflation after 1800, when the increase in circulation became the focus of discussion. His convincing theoretical defense of the Restriction and the Bank directors' policies leaves no doubt that his position puts him in the anti-bullionist camp that supported inconvertibility. Thus, *Paper Credit* can be read as an early exploration of the possibility of having a stable monetary system that is not based on convertibility to commodity money. Moreover, Thornton's inquiry led him to develop an early innovative formulation concerning monetary policy and to elaborate on how a national bank can manage the monetary system.

Sections 1 and 2 of this article elaborate on Thornton's 1802 analysis of the deflationary and inflationary phases; they establish the consistency of his positions in the two parts of the book where he defends the Restriction and the Bank's directors and advocates the possibility and advantages of having an inconvertible monetary system. Section 3 reviews Thornton's positions after 1802, up to and after the 1810 Bullion Committee.

1. *Paper Credit* on the Contraction of the Circulation

Thornton begins his book with some general observations about money, credit, and transactions. He defines commercial credit as the "confidence which subsists among commercial men" and argues that confidence does not depend on the existence of money: commercial credit can be used even before "bills [and] money are as yet known" and "is the foundation of *paper credit*," which helps to "enlarge, confirm and diffuse confidence among traders" ([1802] 1939, 75–76). Thornton then describes the transformation of exchange in society from barter to the convenient use of gold as money. But the focus of the analysis is on understanding the workings of the exchange of goods using credit instruments like bills of exchange. The book offers a critique of Adam Smith's monetary theory, written in a modest and reserved tone.

A Critique of Smithian Monetary Theory

Smith's monetary analysis assumes both convertibility and that the banks discount only so-called real bills, thus guaranteeing the proper working of the banking system.[10] His underlying assumptions are that real bills are well defined; their quantity is restricted; and, most significantly, the banks' self-interest would force them to discount only such bills.

Thornton argues that banks cannot differentiate between "real" and "fictitious" bills. The former supposedly derive from the genuine sale of a commodity, where the buyer receives credit from the seller and in exchange provides a bill stating the terms of his debt; the fictitious bill originates in

10. See Smith [1776] 1976, bk. 2, chap. 2; Laidler 1981; Santiago-Valiente 1988; and Gherity 1994.

the coordinated actions of merchants who want a medium that can be discounted. Thornton describes the fictitious bill as a "note of accommodation." He disagrees with Smith that the use of fictitious bills will prove "ruinous" to those who, acting in their self-interest, discount them. Moreover, he thinks it improbable that the bankers or any of the merchants could distinguish between the two types of bills: the merchant either doesn't know or doesn't care, and the banker is only interested in "the credit of the bills . . . in judging whether he ought to discount them" (89).[11] Thus, Thornton also rejects Adam Smith's real bills doctrine and the application of the "invisible hand" argument to banking.

Thornton's analysis of bills, that is, debts, was the foundation for his analysis of circulating paper. In *Paper Credit* he discusses the rise of bank notes "payable to Bearer on Demand" where the issuing body keeps only fractional reserves in money. He argues that a "powerful and well accredited company will probably be the first issuer" of such paper. The tendency to see a great public bank as the pivot of the system makes this body a source for a "reservoir of gold to which private banks may resort with little difficulty, expence, or delay, for the supply of their several necessities" (90). Thornton here explicitly criticizes Smith and the bullionist Boyd, whom he believes had not fully appreciated either the complex links between bills, bank notes, and gold, or that bills and bank notes are both money. The somewhat mechanical treatment of the issuing of notes by Smith, argued Thornton, misses some important distinctions. Smith argues that the rise of fractional reserves frees resources by supplying the circulation with a cheap medium (notes) while keeping less gold in reserve than had to be kept without the service of banks. But gold and notes are not perfect substitutes since they have different impacts in their performance of payments; for example, gold's velocity of circulation is higher than that of notes. Moreover, bills are part of the circulating medium and perform better than notes in that capacity. The major advantage of bills is that their value rises over time when they are held as a means of payment that carries interest. This sophisticated and modern

11. "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 one class or 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" (89). For a review of the Bank's policy and the real bills doctrine, see Smith 1936, Hetzel 1987, Humphrey 1988, O'Brien 2003, and Laidler 2004.

discussion concerning costs and benefits of the various means of payments covers both the individual agents in the exchange process and the macroeconomic implications.

Thornton's discussion of the macro implications causes him to criticize Smith once again. This time, he directs his critique at the nature and role of debts and credits. Thornton quotes from Smith's chapter on banking: "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" (Thornton [1802] 1939, 95; Thornton's emphasis). This formulation enabled Smith to argue that if the banks followed his real bills doctrine, which they would out of self-interest, the quantity in circulation would be the right one.

Thornton focused on Smith's phrase "of every kind": what was included in paper money according to Smith? Are bills of all kinds included, as Thornton thought they should be? If so, were Smith's criteria valid for determining whether the circulation was "right" when he compared the total sum of all the mediums in circulation with the quantity of gold that was supposed to circulate if only coins existed? "We feel surprised that the erroneousness of the position did not strike Dr. Smith himself" (95).

The error seems at first to be technical. According to Thornton, it is the effect of gold coins and notes on the economy—not their quantity—at which one should look. Their effect depends on their velocities, the speed at which mediums change hands, which are not identical for each medium. Neither are velocities constant over time, since they depend on many economic circumstances. Hence, Smith's simplistic comparison of paper money and gold is misleading.[12]

Thornton takes his criticism of Smith further. In the act of circulation, when payments are made, mediums other than gold and notes can be used. These credit and debt mediums, based, as we have seen before, on confidence, can perform the role of making payments. Thus, both bills of exchange and bank deposits should be considered part of the mediums in circulation.

12. "The error of Dr. Smith, then, is this:—he represents the whole paper, which can easily circulate when there are no guineas, to be the same in quantity with the guineas which would circulate if there were no paper; whereas, it is the quantity not of 'the thing which circulates,' that is, of the thing which is *capable* of circulation, but of the actual circulation which should rather be spoken of as the same in both cases" (96).

> It appears, that the sentiment which Dr. Smith leads his readers to entertain, namely, that there is in every country a certain fixed quantity of paper, supplying the place of gold, which is all that "can easily circulate" (or circulate without being *forced* into circulation), and which is all (for such, likewise, seems to be the intended inference) that should ever be allowed to be sent into circulation, is, in a variety of respects, incorrect. . . . the same remark . . . would lead an uninformed person to conceive, that the trade of a country . . . might be carried on altogether by guineas, if bank notes of all kinds were by any means annihilated. It may already have occurred, that if bank paper were abolished, a substitute for it would likely to be found, to a certain degree, in bills of exchange; . . . But further; if bills and bank notes were extinguished, other substitutes than gold would unquestionably be found. . . . 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. (100–101)

Thornton recognizes that many different assets and debts can be used in payments and exchange.[13] His criticism of Smith leads him to break from conventional "monetary theories of credit" and is an early expression of what Schumpeter (1954, 722–28) called "credit theories of money."

The Role of the Bank of England

The Bank of England stood at the core of the English financial system. Thornton investigates the Bank's modus operandi by again critically reevaluating Smith's positions. The outcome is an innovative, revisionist monetary theory in which Thornton criticizes Smith's empirical observation that the quantity of notes in circulation, particularly those issued by the Bank of England, was too high.[14] This was a point of great importance in the debate and Thornton returns to it repeatedly: "However just may be

13. The criticisms remind one also of Wicksell's "pure credit" frameworks, although this approach was not to be developed consistently for more than one hundred years.

14. "Dr. Smith probably could not be acquainted with the secret of the actual quantity of those bank notes, of the number of which he complains; he must, therefore, have taken it for granted, that they were what he terms excessive, on the ground of the price of gold being high, and the coinage great" (103).

the principle of Dr. Smith when properly limited and explained, the reduction of the quantity of Bank of England paper is by no means a measure which ought to be resorted to on the occasion of every demand upon the bank for guineas arising from high price of bullion, and that such reduction may even aggravate that sort of rise which is caused by an alarm in the country" (104).

This critique of Smith's policy conclusion which hints at the necessity to determine first what kind of demand the Bank faces and only then to act, acknowledging that contraction may lead sometimes to more damages, calls for special attention. From its inception, Thornton writes, what was unique about the Bank of England was its independence vis-à-vis the government: the Bank did not raise funds for the government by relying on its ability to issue notes; the government did not really need the Bank to finance itself; and the Bank's directors would not even allow such an operation unless they were convinced it was in the Bank's best interest. The role of the Bank's owners was crucial in achieving the proper balance between private and public interests: "The numerous proprietors who chuse the directors, and have the power of controlling them . . . are men whose general stake in the country far exceeds that particular one which they have in the stock of the company" (109).[15]

Thornton supports this somewhat naive claim with the more realistic argument that for most proprietors, the "dividend" from excessive issue would not be worth the damage to the "commercial credit of the country" and would have a negative impact on price levels (110). Moreover, it is not the quantities of either paper in circulation or gold reserves that constitute the appropriate measure for judging the circulation. The only measure that Thornton and "commercial men" knew was that "all bills and paper money should have their value regulated as exactly as possible" by gold coin: "This is the great maxim to be laid down on the subject of paper credit. Let it, then, be next considered what is necessary, in order sufficiently to secure that, whatever the circulating paper may be, gold shall be the standard to which the value of that paper shall conform itself" (111).

Thornton's description of a crisis is illuminating and should prevent one from concluding that his desire that paper be as valued as gold supports convertibility. To maintain the value of notes, convertibility will not

15. As one of the referees pointed out, it is possible that the independence of the Bank from the "executive government" declined in later years.

suffice and is not necessary.[16] The only security that could be found in a convertible system was in a "considerable fund of gold" at the Bank of England that could answer both common fluctuations in the demand for coins and the less common demands arising from either an "unfavourable balance of trade" or "any extraordinary demand at home" (111–12). But that security could never be perfect. The analysis led to Thornton's well-known discussion of external and internal drains. The two are not symmetrical, he argues, and there is no way to guarantee that the reserve will always suffice to cover an internal drain. Hence, there are imperfections in any monetary system, convertible and inconvertible. It is necessary to manage risks and maintain discretion in order to guarantee that the value of paper will conform to gold.

As an example, Thornton analyzes the period just before the suspension. The demand for gold coins in the counties outside London and the demand for Bank notes in London caused interest rates to rise. The Bank pursued a contractionary policy, a policy that Smith's readers would consider, and that would lessen the number of its notes (113). Thus, such a policy could aggravate the economic conditions.

The supporters of the contraction policy assumed that gold would be brought in as a result of their actions. Thornton analyzes and rejects the various channels for such a causal link. The contraction policy failed. While discussing the failure, Thornton explains the differences in principles between a "national bank" and "private houses," which, he argues, must be judged by different criteria. The Bank was a "national bank" that should not "pursue its own particular interest" but should take "upon itself the superintendence of general credit, and seeking its own safety through the medium of the safety of the public." Although the Bank was very different from any other "private house," the Bank's directors had not understood this fact and behaved as if the Bank was still in its "infancy," when the "country was less dependent upon it for the means of effecting its payments" (126–27). However, the Bank became responsible for the country's financial health, concludes Thornton, and ought to evaluate the macro conditions and determine and implement the appropriate discretionary policy. Thus, Thornton rejects automatic contractions, which were in line with Smithian ideas as well as with the Bank's profit-seeking motive.

16. See also page 248 in the second part of the book: "Banks, if they pay in gold, or if, while not paying in gold, they maintain the value of their notes, must observe some limit in respect to their emission of them."

The suspension of cash payments was in Thornton's view an expression of "the general wish of the nation" to substitute payments in money with payments in "money's worth" (139). It is clear that Thornton supported the decision to suspend cash payments in 1797,[17] a position that he continued to defend, as we shall see below.

2. *Paper Credit* on the Expansion of the Circulation

The second part of Thornton's book addresses the Restriction years, in particular the "unfavourable state of the exchange between this country and Europe" (141). This part, from at least chapter 5 on, was likely written or completed after 1800–1801.[18] Thornton's general theoretical argument concerning trade imbalances is clear: a discrepancy between commercial imports and exports has a tendency to disappear. Assuming otherwise would mean that either we accumulate debt infinitely or that we hoard more and more bullion.[19] The mechanism described is not the Humean one based on relative price changes but one based on the equalization of incomes and expenditures by individuals who will react to a possible gap between imports and exports by either economizing on expenditure or creating more income. However, summarized Thornton, "our mercantile exports and imports, nevertheless, by whatever means they may be rendered disproportionate, necessarily become, in the long run, tolerably equal" (145). Thornton thus articulates another long-term equalization mechanism, similar in essence but not identical to the famous Humean mechanism.

Gold is not only an "article by which a balance of trade is discharged," but also a commodity; as such, its movements are determined by its profitability. Thornton discusses a well-known example, concerning the financing of large importations of corn to England, in which it is assumed that the Bank of England still pays its notes in cash. These importations cause

17. "The parliament, then, were led by the practical view which they took of the subject, to disregard theory, as well as some popular prejudice, for the sake of more effectually guarding the public safety, and promoting real justice" (139).

18. Hayek thought that *Paper Credit* had been written over a long time. But see Murphy 2003 for another assessment concerning the dates.

19. "The equalization of the commercial exports and imports is promoted not only by the unwillingness of the richer state to lend to an unlimited extent, but also by the disinclination to borrow in the poorer" (142).

unfavorable exchanges.[20] The price of bullion in Hamburg, reflected in the price of bills of exchange traded there, would then be higher than the mint price of gold. If the difference between the market and mint prices of gold were large enough, gold coins would be bought from the Bank in exchange for bills of all kinds. The Bank would then have to buy bullion dear and sell it cheap, in the process "waging a very unequal war; and even though it should not be tired early, it will likely to be tired sooner than its adversaries" (147).

Through this example, Thornton primarily seeks to clear the Bank of England of any wrongdoing: the high price of bullion was not the responsibility of the Bank. This was neither the common doctrine nor Smith's position. Thornton writes:

> There seems . . . to be much of inaccuracy and error in the doctrine of Dr. Smith on this subject. He begins by representing the quantity of paper which may properly circulate, as to be measured by that of gold which would circulate if there were no paper. The reader is, therefore led to believe, that the difference between the mint price and the market price of gold arises from an issue of a greater quantity. . . . At the time of a very unfavourable balance of trade (an event which Dr. Smith leaves totally out of his consideration), it is very possible . . . that the excess of paper, if such it is to be called, is merely an excess above that very low and reduced quantity to which it is necessary that it should be brought down, in order to prevent the existence of an excess of the market price above the mint price of gold. (150–51)

Thornton argues that in a case of an unfavorable balance of trade, it makes sense that some of the payment for a commodity's excess importation would necessarily be in gold. Changes in the level of prices, brought about by a contraction of the circulation, might be costly and could take some time. Again, he criticizes Smith, who

> leaves totally out of his consideration . . . whether the bank, in the attempt to produce this very low price, may not, in a country circumstanced as Great Britain is, so exceedingly 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,

20. See the example discussed on pages 145–53. "It is assumed, for the present, that the bank is paying in guineas" (147).

> and for bringing back the tide of gold into Great Britain. . . . It is also necessary to notice in this place, that the favourable effect which a limitation of bank paper produces on the exchanges is certainly not instantaneous. (152)

Country Banks

Thornton's analysis of the country banks that emerged when merchants entered the business of turning bills of all sorts into money and vice versa shows the economist at his best. The discussion of trade-offs between liquidity and income of the different kinds of paper, represented by their time to maturity and interest rates, is innovative. His analysis of the important role of probability in banking, and the justification of less than 100 percent reserves on the part of the banks, is evidence of a complex mind seeking to understand the big picture. But Thornton's greatest achievement is his understanding of the complicated relationship between the country banks, the London private banks, and the Bank of England. His analysis of the outcome of these interdependencies, their advantages and disadvantages, and their effects on the British monetary system is probably the best in the literature.

Altogether, the banking industry plays a positive role in the economy on account of its cautious practices and disciplinary actions, both of which restrict credit expansions and speculations. By issuing paper, it increases the "productive capital of the country." Here Thornton explicitly follows Smith's celebrated arguments and provides additional ones to counter the claim that more paper was the cause for the high price of corn in 1800. According to Thornton, this claim was rooted in a misunderstanding:

> A paper medium . . . has been . . . quite as convenient an instrument in settling accounts as the gold which it has displaced. . . . To reproach it with being a merely fictitious thing, because it possesses not the intrinsic value of gold, is to quarrel with it on account of that quality which is the very ground of its merit. Its merit consists in the circumstance of its costing almost nothing. (178–79)

The substitution of expensive gold with cheap paper leads to the employment of more productive capital. Nevertheless, there are, argues Thornton, some "solid objections" to this system of banking, notably "the tendency of country banks to produce, occasionally, that general failure of paper credit," which causes a crisis in commerce and manufacturing. This can be the result of a single bank failure, but the chain of links and dependencies that constitute the banking system may very well transfer the crisis to other banks, including the Bank of England. Naturally, the Bank of England has to be prepared for such occurrences. Thus, in weighing the advantages of having the country banks' note circulation, one has to deduct not only the gold kept as reserve in the country banks' coffers, but also the costs incurred by the Bank of England for having to hold additional gold (180–82).

Thornton's analysis of a typical financial crisis, starting at the peripheral counties and ending at the metropolis in "a general failure of commercial credit," is illuminating. Thornton hypothesizes a situation to illustrate such a crisis, and concludes: "The observations which have now been made sufficiently shew what is the nature of that evil of which we are speaking. It is an evil which aught to be charged not to any fault in the mercantile body, but to the defects of the banking system" (186).

According to Thornton, the risk of such a crisis will diminish as three corrective counterforces are strengthened. First, the Bank of England will learn to be more generous toward the country banks and navigate between leaving the country banks to face their responsibilities and saving the credit system.[21] Second, and most importantly, the country banks will learn to accumulate enough liquid assets. This will increase the stability of both the country banks and the Bank of England, making the entire system safer. Third, those among the public using notes of different houses will learn to distinguish between them and to place confidence in those notes issued by the most prudent banks.

Thornton criticizes the common allegation that country banks tend to issue more and more notes, causing prices to rise. The system, he writes, prevents such occurrences. Thornton ascribes the formation of prices to two factors working together: the relative state of supply and demand—a general process that reflects the circulation of money—and the bargaining process, which is specific to the commodity and which utilizes power rela-

21. "It is by no means intended to imply, that it would become the Bank of England to relieve every distress which the rashness of country banks may bring upon them: the bank, by doing this, might encourage their improvidence. 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" (188 n).

tions (194). How can an increase in paper "lift up the price of articles"? When more paper circulates, traders' behaviors change, prompting the bargaining positions of buyers and sellers to change in opposite directions and prices to move up. As events in the 1795 corn market had shown, the same force will also work in the other direction: a "sudden scarcity of cash, not any new plenty of corn, . . . caused the price of corn to drop" (196).

The same process can influence trade in financial instruments, as happened in 1797 in the government securities market. Just days before the suspension, a shortage of Bank of England notes drove securities prices down, and a few days later, when the quantity rose, their prices went up again. The truth, wrote Thornton, is "that paper fluctuates in price on the same principles as any other article, its value rising as its quantity sinks, and *vice versa*," although "an exact correspondence between the quantity of paper and the price of commodities can by no means be expected always to subsist" (197).

This issue of the causal link between the quantity of money and prices attracts Thornton's attention throughout *Paper Credit*. He writes:

> The reader possibly may think that, in treating of this subject, I have been mistaking the effect for the cause, an encreased issue of paper being, in his estimation, merely a consequence which follows a rise in the price of goods, and not the circumstance which produces it. That an enlarged emission of paper may often fairly be considered as only, or chiefly, an effect of high prices, is not meant to be denied. It is, however, intended to insist, that, unquestionably, in some cases at least, the greater quantity of paper is, more properly speaking, the cause. (197–98)

Thus, Thornton's fundamental argument is not with the quantity theory per se, but with some inappropriate policies that led to undesired consequences. In this case, he disagrees with the anti-bullionists' argument that monetary expansion does not raise prices.

Defending the Bank Directors

Thornton defended the Bank's directors by asserting that the pressures on the exchanges were the result of the war and bad harvests, not of an expansion in note circulation. While a larger quantity of Bank of England notes can raise the price of goods just as the high prices of goods can cause an increase in the quantity of Bank notes, "there is considerable danger, lest . . . we should, in some degree . . . mistake the effect for the cause; and should too much incline to consider an advanced price of commodities to be both the cause of an encreased issue of paper and the justification of it" (221).

Thornton's defense of the British banking structure is firm. The Bank uses its monopoly power to guide the system between dangerous alternatives: "that of a depreciated paper currency on the one hand, and that of an interruption to our paper credit, and a consequent stagnation of our commerce and manufactures, on the other" (226). Thornton rejects the too-liberal approach of Smith, based on the latter's real bills doctrine, because it sees "no danger in almost any extension of its discounts . . . provided only the bills discounted . . . were real bills . . . of sufficiently safe and responsible houses" (227). But he also rejects other proposals, for example the establishment of a "rival" institution to the Bank of England: because they may encourage "that liberality in lending, which it is the object of competition to promote, the London notes, and also the country bills and notes, would be more liable to become excessive. Our paper credit would, therefore, stand in every respect on a less safe foundation."

Thornton concludes that the Bank's monopoly on the issuing of notes in London provides "a material advantage. . . . To this very circumstance the bank stands indebted for its faculty of regulating all the paper of the kingdom" (228). Thornton's analysis provides the basis for his unique position on the policy implemented by the Bank's directors. In *Paper Credit* he specifically targets those who think that it is enough for the Bank's directors to follow the real bills doctrine. He analyzes and rejects two possible arguments: one, there is no such thing as too much money causing prices to rise, the exchanges to fall, and the market price of gold to be above the mint price; and two, the possibility of too much money exists, but does not happen since "bank paper has a natural tendency sufficiently to limit itself" (232).

Like Hume, whom he quotes, Thornton thinks that the impact of more money will be short-lived (238). It will neither change the basic characteristics of the economy nor create more capital or trade, except perhaps for a brief period during which those who find themselves with more money will try to exchange it, causing prices to rise. Thornton explains that the expansion of Bank notes is similar in effect to mining more gold: "The value of it would fall nearly in proportion to the extension of its quantity; especially if it were used for the sole purpose of a circulating medium, and were also the only kind of circulating medium. The metropolis of Great Britain is so circumstanced, that the issue of an extraordinary quantity of bank paper for the purpose of effecting the payments in London, in a considerable degree resembles the creation of an extraordinary supply of gold for the general uses of the world" (242). The same argument holds true for a pure coin circulation, a mixed coin and paper circulation, and when paper alone circulates. In all cases, goods will rise in price and gold will be exported. Thus, concludes Thornton, gold movements depend on the balance of trade and on the quantity of the circulating medium, since the latter influences the former.

Does the Bank "restrain" itself? To answer this question, Thornton again rejects the "security of real bills" since they can easily be multiplied. "If the bank directors were to measure their discounts by the amount of real bills offered . . . bankers and other discounters . . . might become much more considerable holders of mere notes of hand, or of fictitious bills; and that an opportunity might thus be afforded of pouring a vast additional quantity of real bills into the Bank of England" (253). Thornton explains that the restriction of the quantity will not come from the borrowers, who will compare the rate of interest at the bank with the "current rate of mercantile profit" (254). As long as the former lies below the latter, there will be demand for bank loans. The increase in note circulation may seem to provide some relief, but this will be temporary and will translate into higher prices. Thornton concludes that the Bank is the regulator of the monetary system and explains why the directors limited their weekly loans to merchants:

> The preceding observations explain the reason of a determination, adopted some time since by the bank directors, to limit the total weekly amount of loans furnished by them to the merchants. The adoption of a regulation for this purpose seems to have been rendered necessary by that impossibility of otherwise sufficiently limiting, at all times, the Bank of England paper. . . . The regulation in question I consider as intended to confine within a specific, though in some degree fluctuating, sum, the loans of the bank, for the sake of restricting the paper. (258)

In an oft-quoted statement, Thornton makes it clear that he has (monetary) policy in mind while talking about the "true policy of the directors of an institution circumstanced like that of the Bank of England." He emphasizes the "principle of restriction" but also the need to control the monetary system:

> 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 general trade of the kingdom enlarges itself; to allow of some special, though temporary, encrease in the event of any extraordinary alarm or 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. (259)

Here Thornton states the need to act according to prevailing circumstances, and not to leave the monetary aggregates to the determination of market forces, the demands of borrowers, or a rule. It is the Bank directors' responsibility to assess economic conditions and decide what course to take. Thus, Thornton defines, again, in very modern terms, the conflicting targets of monetary policy.

The concluding chapter of *Paper Credit* presents, in a strong antibullionist tone, Thornton's views on the core issue of prices and money. The criticisms are directed at both Montesquieu and Hume. Thornton extends the analytical approach he has used to understand how the British system disciplines itself: as the exchangeability of country paper and London paper prevents over-issuing in Britain, so it does in the world at large.[22] But one circumstance is unique to the "isle": that country-bank paper is always convertible to "London paper" without any discount.

In his analysis, Thornton distinguishes between prices in terms of British paper and British coin, and prices in terms of bullion. He focuses on whether an increase in the quantity of paper can be a cause for discrepancy. He measures the first discrepancy by looking at the difference between the market and mint prices of bullion, or the state of the exchanges. These differences are small, argues Thornton, and attributable to "real" factors like bad agricultural seasons. Bullion prices of commodities may have changed, he tells us, but not due to credit expansion.

22. "It was observed in a former Chapter, that a very considerable advance in the price of the commodities bought and sold in one quarter of this kingdom, while there was no such rise in any other, was not supposable; because the holders of the circulating medium current in the spot in which goods were imagined to have been rendered dear, would exchange it for the circulating medium of the part in which they were assumed to be cheap, and would buy the commodities of the latter place, and transport them to the former, for the sake of the profit on the transaction" (260).

Thornton then describes what is commonly known as Hume's celebrated international mechanism, or the price-specie-flow argument. To make Hume's argument, Thornton first assumes an ideal type, a pure circulation, where only coins are used as means of payments. In his scenario, high prices for exports lead to a favorable trade balance and a rise in prices in Britain. The resulting importation of gold, like "an augmentation of paper," raises prices in Britain further. "The bullion will continue to flow in until it shall have brought the bullion price of goods in England to a level with the bullion price of the same articles in foreign parts, allowing for charges of transportation. On the ability, therefore, of Great Britain to maintain a high bullion price for her goods abroad, would depend the bullion price of her commodities at home, in the event of her employing gold as her only circulating medium" (263–64).

Thornton then assumes that paper takes the place of coins as the circulating medium. As in the example concerning pure circulation, he assumes that Britain will face higher bullion prices abroad. The same logic and process will be at work, and Britain "will experience, exactly as if she made use only of gold, an encrease in the price of her commodities at home, as well as an enlargement of the quantity of her circulating medium." However, in this case Britain will "create," not import, "the additional circulating medium" (264). This difference will have an effect on the level of exports and the exchanges.

Hume, argues Thornton, understood these considerations. However, he preferred the use of gold to that of bank paper unless the paper was fully covered by gold reserves, as it was in Amsterdam's bank. Quoting from Hume's *Of Money*, Thornton argues that although Hume's argument had been made for a pure circulation, it is valid for a mixed one (269 n). Criticizing Hume, Thornton explains how more money will raise prices and cause gold to "transport itself." However, a country that does not improperly expand the quantity will enjoy the advantages of substituting gold for paper, while deriving the "whole advantage of this augmentation of capital" (270).

Thornton further argues that paper credit has no influence on raising the price of provisions (269–70). His proof is twofold. First, there had been no increase in the total circulating medium over the last few years when prices were high. Thornton's case is based on the size of London's circulation and on the previous argument that the counties' circulation must conform to London's. Thornton then rejects a second argument, based on the supposedly negative impact of loan extensions on prices.

Due to their note creation capacity, country banks extended loans and "encouraged mercantile speculation; and . . . we may ascribe to the spirit thus excited much of the late rise in the price of articles in general, and of corn in particular" (271). The important factor in determining prices is "paper," that is, notes issued, not loans, argues Thornton. He claims, moreover, that intermediation has no effect on prices. Banks extend loans either by accepting deposits and using the sums for extending loans, or by extending their own notes. These notes will substitute for gold in circulation, which will either be hoarded or exported.

Thornton's support for the Restriction is not in doubt. Britain has been saved from the violence on the Continent "through the favour of Providence."[23] The island's political strength, however, depends on prosperity, and that necessitates what Thornton calls "mercantile confidence." The enemy tried to disturb this confidence; hence the measures taken by Britain, which Thornton defends in the last paragraphs of his treatise:

> The continuance of the law for suspending the cash payments of the Bank of England has been one of the steps which parliament has deemed necessary. . . . In a commercial country, subjected to that moderate degree of occasional alarm and danger which we have experienced, *gold is by no means that kind of circulating medium which is the most desirable*. It is apt to circulate with very different degrees of rapidity, and also to be suddenly withdrawn, in consequence of its being an article intrinsically valuable, and capable of being easily concealed. If, during the war, it had been our only medium of payment, we might sometimes have been almost totally deprived of the means of carrying on our pecuniary transactions; and much confusion in the affairs of our merchants, great interruption of manufacturing labour, and very serious evils to the state, might have been the consequences. (275–76; emphasis added)

One cannot read Thornton's *Paper Credit* but as a principled defense of inconvertibility and the Bank's directors. While defending inconvertibility he explained how that new system can function and provide the country with a sound monetary system.

23. Thornton was well known for his religious activities with the famous Clapham Sect. He was also heavily involved with the abolitionists at this same time. As David Levy suggested in his discussion of the present article at the 2007 HES meeting, his leaning toward public policy in monetary matters may have been related to his desire to see government actions also on the side of the antislavery movement.

3. A Brief Look Beyond 1802

Thornton's views of the Restriction, the Bank of England, and in particular his position on an early return to cash payments changed before 1810, a year in which he became a major figure and played a central role in the Bullion Committee on the side of the bullionists. An interesting window into the process and scope of change can be found in Thornton's comments, written around April 1804 (see Thornton [1802] 1939, 321), on Lord King's *Thoughts on the Effects of the Bank Restriction* (1804) as they appear in Thornton's copy of that important work, now in the Goldsmith Library.[24]

Thornton's disagreements with King focus on whether the paper circulation was excessive, and in particular whether the Bank of England overly expanded its paper. Thus, the argument was largely about the behavior of the Bank's directors: "The chief danger of an over-issue arises from the circumstances of the Directors perhaps not sufficiently perceiving that a limitation of Paper will improve the Exchanges and that it is necessary if the Exchanges continue long unfavourable to make this reduction even against the general sense of the merchants" (Thornton [1804] 1939, 316).

Thus, argued Thornton, the general circumstances that put the directors in a difficult position, forcing them to work against the merchants and their own instincts, created the incentives that led to periodic increases in the circulation. However, by 1804, the directors had learned their lesson. King (1804, 37) argued that in 1799–1802 the exchanges were "against England . . . probably occasioned by the increase of the paper currency of the Bank." Thornton had some reservations concerning the criteria King used to assess the circulation and the exchanges, but he agreed "that it is probable there may have been about this time a somewhat too great issue of Bank of England Notes" (Thornton [1804] 1939, 317). Throughout his commentary on King, however, Thornton continues to express support for the Restriction and for the feasibility of a well-functioning inconvertible system. Thus, he writes: "A non-convertible Paper *which is limited* and is in full credit may maintain its price just as if it were convertible" (317).

24. See Hayek's (1939, 312) introductory note in Thornton's *Paper Credit*. In the copy of King 1804 at the Goldsmith Library, the following statement appears: "The Manuscript Notes in this copy are by Henry Thornton Esq. M. P." Hayek noted that "there seems to be no reason to doubt the correctness of the ascription." The comments are on King's "second enlarged edition" of the original work that had been originally published in 1803.

Thornton feels that as long as the war lasts, the Bank of England has to be "protected from the danger of having Gold demanded in indefinite quantities." However, he is careful to add that the Bank should not be protected when the demand rises due to "long continuance of an unfavourable Exchange" (321). Thus, a major question for him is whether the Bank is responsible for such a long-term situation. In 1804 Thornton clearly still considered the answer to be negative: "The Directors of the Bank of England if they have erred at all, have erred but a little and their Error has resulted from the circumstance of their not sufficiently perceiving the great and important principle which Lord King has so well laid down, namely that an Excess of Paper is the great radical cause of a long continued unfavourable Exchange" (321–22). Thus, it was not "expedient now to determine the period when the Bank Restriction Bill shall cease, except indeed that it ought to be made to cease in a moderate time after the termination of the War." This was indeed the anti-bullionists' position.

King (1804, 32) argued that "the Proof of a degraded currency founded upon the two tests of the price of bullion and the rate of exchange was strongly and successfully urged by Mr. Boyd in his Letter to Mr. Pitt, published in December 1800." In response, Thornton ([1804] 1939, 316–17) comments:

> Mr. Boyd in his letter to Mr. Pitt insisted that the *Nonconvertibility* of Paper into Gold was the cause of a depreciation of it which he assumed to be so great as to account "more than any other cause" for the high price of Bread. He did not measure the degree of the Rise which an Excess of paper occasioned by the variation in the Exchange as he ought to have done and he did not seem to consider that this Nonconvertibility of Paper into Gold does not necessarily produce a depreciation of paper, but produces only when it serves to encourage the Issues [i.e., Issuers] of Paper to issue it to excess. A non-convertible Paper *which is limited* and is in full credit may maintain its price just as if it were convertible.

Thus Thornton again defends an anti-bullionist position. One can see here the seeds of modern monetary thinking on inconvertibility. Thornton founds his explanation for preserving the inconvertible monetary system—in spite of the obvious incentives of private interested parties like the banks to expand it—on a concept of the Bank of England's "responsibility." Thornton asks why the Bank's directors, the ultimate regulators of the English monetary system, should be motivated by public interest rather than by the Bank's private interests. Thornton's comments on King's discussion of Irish banking are revealing in this context.

King addresses the crucial tension between private and public interests under inconvertibility. At the time of his writing, the Irish currency had depreciated due, argues King, to an excess quantity of notes. Thornton points out that the Irish and English systems are quite different: the Bank of Ireland does not have a monopoly over the supply of paper currency in Dublin and does not have the same power as the Bank of England over the circulation in the country. "The limitation of the Bank of Ireland paper . . . might possibly have little other effect than that of leaving to the other private Banks (which are completely rival Establishments) those profits which the Bank of Ireland should relinquish" (Thornton [1804] 1939, 319). Thus, the structure of the English system made the difference.

Thornton was already deeply involved with the Irish currency question when he read and responded to King. This familiarity resulted first in some speeches in Parliament and then in his role in the important but sometimes neglected Irish Committee of 1804. Fetter, in his 1955 introduction to *The Irish Pound*, credits Thornton with "major responsibility for the work of the Committee."[25] Moreover, the issues concerning the Irish banking structure became the subject for many of the questions the committee put before those who gave evidence, which Fetter thought "suggest the hand of Henry Thornton."

Thornton's position as expressed to the Irish Committee is that of an anti-bullionist who supports the suspension and defends the Bank's directors. Although the committee concluded that the 1797 Restriction had permitted a monetary expansion, it did not recommend a repeal of the act. Rather, its recommendations were directed at the Irish banks, calling for their notes to be redeemed in Bank of England notes or in "London funds," and for a more restrained credit policy.[26] The latter recommendation was valid, in Thornton's view, for the Bank of England as well, although the Bank of England was a powerful monopoly that was fulfilling its duties. By 1810 Thornton's positive assessment of the Bank's directors and their credit policy would change.

25. Beyond Fetter's important introduction, the volume includes a reprint of the 1804 report, and selection from the *Minutes of Evidence from the House of Commons Committee On the Circulating Paper, the Specie, and the Current Coin of Ireland*.

26. See Fetter 1955, 44–48. In a debate in Parliament in March 1805, Thornton stated that he "was surprised" that the Bank of Ireland "had not taken the hint given in the report of the committee."

The Bullion Committee

In 1809–10 attention had moved again to the monetary disparities concerning the English currency, which showed clear signs of declining in value as both the price of gold and the Hamburg exchanges depreciated. Thornton's colleague and admirer Francis Horner, founder of the *Edinburgh Review* and an MP, was an important figure in that debate.[27] As a result of Horner's proposal, the Bullion Committee was established in 1810 with Horner as its chair (see Horner 1957, 1994; and Cannan 1919). This committee was the better-known, and most heavily quoted, monetary committee among the many British parliamentary committees. The Bullion Committee's work showed clear links to the Irish Committee, in terms of both membership and content (Fetter 1955, 1965). Horner, Thornton, and William Huskisson drafted its report, which has long been considered a bullionist manifesto.[28] Two speeches made by Thornton after Parliament rejected the report in 1811 will help establish the nature of the modifications in Thornton's position.

According to the preface to the pamphlet where Thornton's speeches appear,[29] the first speech addressed "the practical measure of limiting the Bank paper." The Bullion Report, the subject of the debate, focused on a difficult point of principle that Thornton tried at length to clarify: answering whether it was "expedient that the Bank should regulate the issues of its paper with a reference to the price of Bullion, and the state of the Exchanges. . . . 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" (Thornton [1811] 1939, 327).

Thornton now found himself criticizing the Bank and its directors along with the bullionists. However, he did not accept the bullionists' doctrines and should not be identified as a bullionist, but rather as an anti-bullionist who entered an alliance for exclusively political or pragmatic reasons. In failing to convince the directors to act in accordance with his thinking, Thornton joined forces with their critics.

In his speech, Thornton analyzes the effect of changes in the quantity of money in two instances: first, in its influence over the price of commodi-

27. In his famous review of *Paper Credit*, Horner (1957) summarized the foundations of Thornton's monetary theory, clarified his main arguments, and contributed to his reputation.

28. Full coverage of the report is outside the scope of this discussion.

29. The first speech was made on 7 May 1811, the second, on 13 May 1811. The two were issued together with a short preface. See Thornton [1802] 1939, 325–61.

ties; then in its impact on the price of gold and the exchanges. By way of illustration, he methodically describes three hypothetical cases, one of which was the case of inconvertibility as it existed after 1797 and up to the time of his speech.

Analyzing this case, Thornton expresses his reservations with the Bank directors' decisions:

> The Bank, since they became protected against the necessity of making cash payments, not unnaturally thought that they might use more liberality than they would have ventured to exercise under the same circumstances of our trade, if they had been subject to a drain for cash. They, perhaps, were not much to be blamed on this account. Indeed, they appear not to have believed that a reduction of their paper would mend the Exchange, for they had not examined very deeply or philosophically into the subject. (333)

Here one can find a hint as to the probable causes for Thornton's changing attitude toward the Bank's directors:

> It was, however, important not to mistake leading principles, and not to fancy that an exchange running against us with all countries for two or three years, and reaching the height of 25 and 30 per cent., accompanied with a corresponding high price of gold, *ought at no time and in no degree to be checked by that limitation of the currency to which nature, as it were, as well as our own practice before 1797, taught us in such cases to resort.* (333; emphasis added)

In other words, the Bank's directors, freed from the dictates of gold, stopped listening to the signals that should have led them to implement better policy. Surveying other banking systems, Thornton shows that the same principles apply and summarizes his disagreement with the antibullionists:

> The Bank of France, the Bank of Sweden, and the Banks of America, were establishments more or less independent of the government: they all emitted their paper in the way of loan, furnished at a moderate or low interest; and they had all issued it to excess. The adversaries of the Bullion Committee had grounded a great part of their argument on the following distinction between the Bank of England and all those Banks of which the paper had been depreciated:—The Bank of England, they said, issues nothing, except in return for something valuable: they receive a bill, representing real property, for every note which they emit;

> and therefore they cannot issue to excess. . . . But it was of the utmost consequence to understand, that, even when a supposed equivalent is received in return for the paper issued, excess might arise; and the excess, as he had already said, was likely to be great in proportion as the rate of interest was low. (341)[30]

Thornton maintained a consistent position that was critical of other anti-bullionists like Baring. In particular, he rejected their support of the real bills doctrine. However, he disagreed on a theoretical level with the bullionists' reliance on gold as an automatic device that leaves the system free to regulate itself.

Surprising as it may seem to those who remember Thornton mainly from the Bullion Committee, his views of 1802 put him in the anti-bullionist camp, defending both the Bank of England and the stoppage of cash payments. Thornton's published comments on King's book, as well as his involvement in the Irish currency debates and the Irish Committee of 1804, paved the way for his important role in the celebrated Bullion Committee. In the end, however, his role in the committee was restricted to expressing his dissatisfaction with the Bank's directors concerning their misunderstanding of the Bank's public role. Thus, in 1810 Thornton gave reserved support to a return to cash payments, but did not accept Horner's and Huskisson's metallic approach. On the Bullion Committee he was and remained the third persona.

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30. And again: "The Bank Directors should not continue to act on the principle that a limitation of paper had no influence whatever on the exchange. This was the point on which they were at issue with the Bullion Committee. . . . The Parliament had now to decide on this point of difference between the Committee and the Bank" (343).

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