

ROBERT TORRENS AND THE EVOLUTION OF THE REAL BILLS DOCTRINE

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I. INTRODUCTION

In the current era of quantity theorists and inconvertible currencies, the real bills doctrine has received a surprising amount of recent attention (e.g., Sargent and Wallace, 1982; Smith, 1988; Selgin, 1989; Cunningham, 1992). While the real bills doctrine has a long history, the doctrine underwent considerable evolution during the period from the Bullionist debates of the Restriction Period, 1797–1819, to the Banking School versus Currency School debates surrounding the introduction of Peel's Act in 1844. The debates of the Restriction period are significant for being directly concerned with the workings of an inconvertible, real-bills-based paper currency while the later debates involved the real bills doctrine under convertibility. A primary objective of this paper is to explore the views that Robert Torrens held concerning the inconvertible and convertible versions of the real bills doctrine as a rule for central bank policy. Torrens's contributions as an anti-bullionist and, later, as a leading member of the Currency School reflect the importance that both convertibility and bank lending practices have for interpreting the real bills doctrine and the related law of reflux. The apparently paradoxical evolution of Torrens's monetary thought identified by Lionel Robbins (1958) is attributed primarily to the evolution of his views on bank lending practices.

As a result of recent contributions (Laidler, 1972, 1984; Santiago-Valiente, 1988; Perlman, 1989; Gherity, 1994; Skaggs, 1991; Glasner, 1992), considerable progress has been made in understanding both the paternity and the functioning of the real bills doctrine and the law of reflux. Section II uses these contributions to summarize current views on the real bills doctrine. Attention is also given to the historical antecedents of the real bills doctrine, as reflected in the position of Adam Smith. Section III examines the anti-bullionist position of Torrens in detail. His approach to interpreting the real bills doctrine is developed and its ability to handle the bullionist criticisms of the real bills doctrine assessed. Section IV contrasts the anti-bullionist position of Torrens with that of the

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important bullionist figure, Henry Thornton, with the aim of establishing similarities to Torrens's theoretical framework, such as the distinction between real and apparent depreciation. Section V contrasts Torrens's anti-bullionist views with the position he later advocated as a leader of the Currency School. The paradoxical evolution in Torrens's monetary thought is attributed primarily to his earlier misunderstanding of how banks of circulation operated. In conclusion, Section VI discusses the role that Torrens played in the evolution of the real bills doctrine.

II. THE REAL BILLS DOCTRINE

At least since the eighteenth century, the "correct" interpretation of the real bills doctrine has been a subject of debate and criticism.¹ For example, L. Mints (1945, p. 9) provides the following definition for the real bills doctrine:

... those who have defended this position have held that, if only "real" bills are discounted, the expansion of bank money will be in proportion to any extension in trade that may take place, or to the "needs of trade", and that, when trade contracts, bank loans will be correspondingly paid off. Closely associated with this point is the doctrine that, if only commercial loans are made, the currency will have a desirable elasticity and the banks will at all times be in a liquid condition. I shall designate these ideas as the "real bills doctrine."

From this definition, the real bills doctrine can be identified both as a method for determining acceptable commercial bank assets, in the case of a single bank, and as a guide for central bank policy, when applied to the whole banking system. In contrast, D. Laidler (1972), N. Skaggs (1991) and D. Glasner (1992) argue that it is the law of reflux which is central to classical debates on monetary policy, while the real bills doctrine is more relevant to classical banking theory, as it applies to managing individual banks.

Briefly, the law of reflux maintains "that private banks cannot create an inflationary overissue, because there is a market mechanism that induces banks to supply just the amount of money that the public wants to hold" (Glasner, 1992, p. 869). Being concerned with an inconvertible currency, anti-bullionists such as Torrens admitted the possibility of excess issue and only subscribed to the real bills doctrine. Writing after Resumption, John Fullarton was the first to explicitly propose the law of reflux as a distinct concept. In the more developed classical monetary theorists, such as Fullarton and Thomas Tooke, the real bills doctrine was unnecessary for the law of reflux to operate (Skaggs, 1991, p. 470). The confusion between the law of reflux and the real bills doctrine as central

¹ The modern confusion over the real bills system is illustrated in Sargent (1979, p. 92-95): "it has often been argued that the proper function of the monetary authorities is to set the interest rate at some reasonable level, allowing the money supply to be whatever it must be to ensure that the demand for money at that interest rate is satisfied. Such a rule was ... known as the 'real bills' doctrine ... The effect of the rule is to make the interest rate an exogenous variable, one determined by the monetary authorities, and the money supply endogenous ... The authority stands ready to buy or sell whatever quantities of government bonds are offered at the announced rate." The key point that quality of collateral will serve to regulate the quantity of the note issue goes unrecognized.

bank policy is implicit in some crude anti-bullionist writings where it was asserted that "excess issue" was not possible because bank discounting of real bills was the appropriate market mechanism to ensure that the demand and supply of money would be equal or, in other words, for the law of reflux to hold. However, in practice, "the law of reflux is an assertion about how the liability side of a bank's balance sheet responds to the public's demand for liabilities, while the real-bills doctrine is a prescription for the composition of the asset side of its balance sheet" (Glasner, 1992, p. 888). This distinction between the two concepts in terms of an individual bank's balance sheet is both useful and fundamental.

Though it existed in fragmentary form previously, the real bills doctrine as a guide to individual bank management received its first comprehensive statement from Adam Smith in the *Wealth of Nations*.² However, even if bankers adhered strictly to a policy of discounting genuine real bills, Smith maintained that it was still possible to issue paper currency to excess. Hence, he did not support the real bills doctrine as a legitimate monetary policy rule. The basis of Smith's reasoning was that only gold and silver coins could be regarded as "real money" (Gherity, 1994, p. 432). By discounting genuine real bills, paper currency allows stocks of gold and silver which were unused for various reasons, such as the holding of precautionary balances, to be used more productively. Because overissue of paper currency could imperil the management of individual banks by inducing an unmanageable drain of specie reserves, discounting of real bills provided a rule for bankers to prevent such overissue. In this fashion, paper currency "can never exceed the value of gold and silver, which would necessarily circulate in the country if there was no paper money; it can never exceed the quantity which the circulation of the country can easily absorb" (Smith, 1776, p. 288).

While Smith did not actually use the word "reflux" (Glasner, p. 877, n. 12), he did maintain that any excess supply of redeemable notes over the amount that would have circulated under a pure metallic standard would be returned to the individual bank for payment in specie leading to a potential collapse of specie reserves and failure of the individual bank. Proper lending rules were required to ensure that notes were returned to the bank in repayment of loans and not for conversion into specie. Even if bankers attempted to discount only genuine real bills, Smith recognized that there was no guarantee bankers would make sound discounting decisions or that unforeseen events would prevent possible overissue by individual banks. Given the requirement of convertibility, one advantage of discounting only genuine real bills was that individual banks would be able to adjust to overissue in a timely fashion. Smith also maintained that overissue by the banking system as a whole was possible leading to export of specie. Because of these distinct possibilities of overissue, it is reasonable to conclude that Smith did not adhere to the "law of reflux."

² Discussion of the precursors such as John Law and James Steuart can be found in Mints (1945). Mints also reviews the relevant sections of the *Wealth of Nations*. Mark Perlman (1989) disputes Smith's paternity of the real bills doctrine as appropriate central bank policy. This view is disputed by J. Gherity (1994).

The real bills doctrine developed during the Restriction period was a significant contrast to the views of Adam Smith. In addition to being applied to an inconvertible paper currency, the real bills doctrine was transformed from a prescription for individual bank management into a rationale for Bank of England policy. These distinctions are fundamental. Under convertibility, Smith maintained that excess issue of paper currency could still occur, even though "excessively" liberal discounting policies would be dampened by the specie constraint imposed on the system. Pressure from overissue would affect the solvency of individual banks, potentially triggering a banking crisis when specie reserves fell too low due to the export of bullion and coin. Because convertibility is inherent in his analysis, Smith has little to say about the implications that banks discounting of genuine bills had for issuing an inconvertible paper currency. However, it is difficult to see how even a liberal interpretation of Smith's views on the real bills doctrine could provide any support for the anti-bullionist view that following the real bills doctrine would prevent overissue of an inconvertible paper currency.

III. ROBERT TORRENS AND THE ANTI-BULLIONIST POSITION

As a central figure in the Currency School, Torrens was a strong critic of the convertible form of the real bills doctrine and the law of reflux, particularly as advanced by Tooke and Fullarton. Yet, as an anti-bullionist, Torrens was an important proponent of the inconvertible version of the real bills doctrine.³ By explicitly proposing a novel definition for when a paper currency is issued to excess, Torrens presented a plausible if not overly convincing model of the real bills doctrine applicable to an inconvertible currency. Later commentators have recognized the significance of Torrens's contribution, as the following quote from Robbins (1958, p. 75) would indicate: "The *Essay on Money and Paper Currency* which was Torrens's first excursion in the theory of money and banking ... is as forceful a statement of the case against the analysis and recommendations of the Bullion Report as is to be found anywhere in the literature." In comparison to other anti-bullionists, Torrens was careful to recognize the difficulties inherent in an inconvertible paper currency such as loss of confidence, apparent exchange depreciation and "temporary" increases in prices.⁴ He also definitely felt that convertibility, if sometimes inconvenient, would prevent inflationary excess issue.

The defining feature of anti-bullionism was defense of the Bank of England from its bullionist critics, e.g., Mints (1945, p. 42). Because the directors of the

³ On the Currency School/Banking School debate Viner (1937) is still a useful reference. On Torrens the definitive work is Robbins (1958). The relevant primary source for the inflationist phase is the *Essay on Money and Paper Currency* (Torrens, 1812). This tract was part of the pamphlet literature that followed the publication of the Bullion Report. For the deflationist phase the primary source is *A Comparative Estimate of the Effects which a Continuance and a Removal of the Restriction upon Cash Payments are respectively calculated to Produce* (Torrens, 1819). J. Viner (1937, p. 121) does not appear to support the view that Torrens was a pre-eminent anti-bullionist.

⁴ One source for crude anti-bullionist views is provided by the testimony of various Bank of England directors to the Bullion Committee.

Bank of England publicly maintained that restriction of bank discounts to real bills would prevent overexpansion of the note issue, anti-bullionists were invariably proponents of the real bills doctrine. Being an anti-bullionist, Torrens maintained the real bills doctrine. For example, in the *Essay*, Torrens stated that: "limiting the issues of bank paper, to the discounting of solid mercantile bills, payable at a fixed and moderate rate, is an effectual means of returning all superfluous paper upon the bank that issued it, and of bringing the supply of circulating medium within the measure of demand" (Torrens, 1812, p. 125). Torrens also maintained that the reflux of notes associated with banks following adequate discounting procedures would be sufficient to prevent excess issue: "The paper, issued upon such discounts, would not remain in the market, after the demand for it ceased. When it ... was about to become excessive, it would be returned to the bank, in payment of the bill, upon which it had been advanced." (Torrens, 1812, p. 126-27). Because this reflux of bank notes required that only real bills be eligible for discount, the form of reflux differed from the law of reflux later advanced by Fullarton and Tooke.

For Torrens, reflux was an implication of strict observance of the real bills doctrine under inconvertibility. Automatic elimination of excess was not assured, requiring banks of issue to strictly follow the practice of only "discounting solid mercantile paper" as the best method of jointly preventing inflationary excess issue while preserving sufficient currency "elasticity" to prevent the deflationary implications of an all metallic currency. Adherence to the real bills doctrine should be legislatively required if necessary. This preference for strict rules limiting the activities of monetary authorities is an important theme in Torrens's contributions both as an anti-bullionist and as a leading member of the Currency School. If anything, his preference for rules became stronger over time, due to an increasing cynicism about the activities of bankers. Another important theme common to both his anti-bullionist and Currency School writings is a concern for the evils of deflation. Inflationary excess was a danger primarily because of the social costs of deflation brought on by the often sharp adjustment process required to restore domestic and international equilibrium.

A key feature distinguishing Torrens's anti-bullionist position from his contemporaries is the method used to address the central analytical issue of the Bullion Report debates, the question of whether the paper pound was depreciated (Viner, 1937, p. 124). To answer this question requires a measure of excess issue for an inconvertible paper currency. Bullionists measured excess in terms of what would have circulated under a metallic standard. Hardline bullionists, such as Ricardo and Wheatley, maintained that depreciation of the foreign exchanges always represented excess issue while moderate bullionists, such as Thornton, allowed for differences between real and apparent depreciation of the exchanges undermining the use of this measure of excess. Torrens (1812, chapter 8) followed the moderate bullionists and allowed for the difference between real and apparent depreciation. Similar distinctions also applied to the other primary measure of excess used by the bullionists: a premium on specie, typically gold bullion. For Torrens, measuring excess in this fashion would have potentially deflationary implications. Unfortunately, in the *Essay*, Torrens only makes general references to using price level increases as his measure of excess and

does not systematically or adequately develop a precise measure of excess. It is not until 1816, in the third of a series of six letters to the Earl of Lauderdale published in the *Sun*, that Torrens proposes a measure of excess based on the price of coarse goods which do not enter international trade.

That Torrens in the *Essay* left the issue of precisely defining excess unresolved is not surprising in light of the conventional anti-bullionist position. The directors of the Bank publicly ignored the issue of excess by generally maintaining that the state of the exchanges was not and should not be a concern in determining whether to add to their discounts.⁵ Though not unanimous, the directors of the Bank publicly maintained a myopic real bills view (Duffy, 1982; Mints, 1945, pp. 50–51). Little connection between the Bank's advances and either the state of the exchanges or the price of bullion was admitted. The following testimony of the Bank governor John Whitmore to the Bullion Committee is indicative of the Bank's anti-bullionist position: "I have always stated that we never forced a note into circulation, and the criterion by which I judge the exact proportion to be maintained is by avoiding as much as possible to discount what does not appear to be legitimate commercial paper. The banknotes would revert to us if there were a redundancy in circulation, as nobody would pay interest for a banknote that he did not make use of." This was a view supported by Torrens: "When the bank supplies a temporary demand for circulating medium by uttering paper, in discount of real mercantile bills payable at a short date—and when on this demand subsiding the bank receives in payment of the bill which is discounted not only the sum which it advanced but also the legal interest on the bill—it is obviously impossible that this transaction should render the currency excessive" (Torrens, 1812, pp. 147–48). However, without a measure of excess or "redundancy", the perception of reflux alone could not provide any direct support for the Bank's decisions.

Even as the Bank directors were falling back on the real bills doctrine to justify their discounting policy, the substantial depreciation of the British pound in relation to other foreign currencies on the Hamburg exchange (Viner, 1937, p. 144) combined with the substantial premium on specie which prevailed from 1809 to 1815 made it difficult for anti-bullionists, using the premium on bullion or depreciated exchanges to measure excess, to argue against the bullionist position. As discussed in Section IV, the bullionist critique centered on: the Bank's adherence to the real bills doctrine; and, the absence of a measure of excess issue, "neither the price of Bullion nor the course of the exchanges" (Bullion Report in Cannan, 1925, p. 53), in determining whether a given level of note issue was appropriate. What stimulated Torrens to develop a precise anti-bullionist measure of excess was, most likely, his exposure to Ricardo starting in April 1815 (e.g., O'Brien, 1965). Confronted by Ricardo, who maintained a direct correspondence between excess issue and depreciated exchanges, Torrens would have been challenged to identify excess issue while maintaining a distinction between real and apparent depreciation. Torrens's

⁵ I. Duffy (1982) discusses the differences between the public and private positions of the Bank directors and the implications for Bank discount policy.

solution was to propose that if the general level of prices is not affected, there was only apparent not real depreciation of the exchanges.

The use of commodity prices as a measure of excess was not completely inconsistent with the bullionist position. In addition to depreciation of the exchanges and a premium on specie, bullionists admitted one other measure of excess: "The premium on bullion, the low rate of exchange and the high prices of commodities in general, (are) symptoms and effects of the superabundance of paper" (Boyd, 1801). For his definition of excess, Torrens made a substantive development in the use of prices as a measure of excess. Recognizing that the price of tradeable goods would be affected by "temporary" (apparent) as opposed to real exchange depreciation, he chose to use the prices of goods not entering into international trade to determine whether paper currency had been issued to excess. Using this measure, Torrens came to the conclusion in *Comparative Estimate* (Torrens, 1819) that "... it is (not) my contention to contend, that since the passing of the Restriction Act the paper currency has never sustained any real depreciation The contrary has probably been the case." This conclusion would appear to be at odds with classifying Torrens as an unrepentant anti-bullionist. However, Torrens only came to this conclusion after establishing that the Bank had not been adhering, at all times, to the real bills doctrine: "When we consider that the transactions of the Bank have not been sufficiently confined to the discounting of bill of exchange payable at a short date ... we must admit that paper may have been occasionally issued to excess" (*ibid.*, p. 51).

The open economy implications of Torrens's view that strict adherence to the real bills doctrine prevents excess issue hinges on his definition of excess. If the absence of an excess issue is to be understood as a note issue which would have maintained international equilibrium, as in the Bullion Report, problems arise with Torrens's presentation of the standard anti-bullionist argument that the exchanges can be depreciated but the currency not be in excess. However, because his position on excess allows that (apparent) depreciation of the exchanges might arise from causes other than a positive increase in the volume of money beyond that required to sustain the "needs of trade", his views are empirically consistent. In not defining excess in relation to "maintaining international equilibrium" Torrens allowed for the variations which an inconvertible paper currency would have in foreign exchange markets. If paper currency is not convertible, the value of that currency should not be expected to behave as though it were convertible. This distinction between real and apparent depreciation which was required for his definition of excess also divided the bullionist camp, with hardline bullionists claiming that depreciation was proof of excess and moderate bullionists allowing for temporary depreciation.

In addition to the distinction between real and apparent depreciation, Torrens also allowed for temporary price increases associated with increases in the quantity of money affecting the level of employment. In the *Essay* and later in *Comparative Estimate*, Torrens emphasized the desirable characteristics of inflation and the evils of deflation. Implicitly assuming a level of substantial underemployment associated with an insufficient amount of circulating medium, Torrens recognized the stimulative impact of an increase in the quantity of

money: "This (increased quantity of money) without increasing the supply would increase the demand for all the comforts and luxuries of life. The capitalist and labourers, therefore, who were instrumental in preparing and bringing them to market, would obtain an increase of profits and a rise of wages" (Torrens, 1812, p. 34). However, the ensuing rise in prices would be met with a corresponding increase in supply: "... the materials and labour, thus purchased and employed, would increase the supply, and, consequently, diminish the price of manufactured articles, and, in general scale, render the necessities of life cheaper. Thus we see that ... no (permanent) rise in the money price of commodities could take place" (ibid., p. 135–36). In effect, while there may be a temporary increase in prices associated with an increase in the quantity of money, over time there would be a corresponding increase in output and real wages sufficient to restore the initial price level.

An important source of disagreement between bullionists and anti-bullionists concerned the empirical characteristics of the supply of real bills. Anti-bullionists such as Torrens argued that paper currency issued through discounting legitimate mercantile bills provided credit which facilitated the productive process and, thereby, increased "the necessities of life." One important bullionist argument maintained that: "... paper uttered in discounting mercantile bills, payable at short date, will not, on every occasion, be employed in putting industry in motion; and that, all that is not so employed, will be devoted to procure articles for immediate consumption; and thus (increase) ... the money price of commodities" (ibid., p. 138). Torrens answers this objection by making a reference to the supply of real bills and, somewhat erroneously, implied the support of Adam Smith for his position:

... the great majority of persons, who present mercantile bills for discount, will not squander, in the trade of consumption, the accommodations which they pay legal interest to obtain. The desire of bettering our condition is a general feeling. As Dr. Smith has well observed—The prudent and judicious greatly exceed the thoughtless and profuse; and, though some might be found so regardless of their interest, as to discount their mercantile bills, for the purpose of indulging in unproductive pleasure; yet the number of these would be too small to produce any perceptible rise in the money price of commodities (ibid., p. 138–39).

Significantly, it is this position, which is based on an empirical assessment of the discounting process, that Torrens was eventually to decide was erroneous.

By proposing a strict version of the real bills doctrine, Torrens was able to claim that an inconvertible paper currency was capable of achieving an "elasticity" sufficient to serve the needs of trade without creating an inflationary overissue. However, in the *Essay* Torrens did not maintain that adherence to discounting of genuine real bills alone was sufficient to achieve an unmanaged monetary equilibrium. While his version of the real bills doctrine denied the possibility of inflationary overissue, it did not rule out deflationary underissue. Unlike Glasner's (1992, p. 878) anti-bullionists, Torrens (1812, p. 147) did not have a supply of real bills which was perfectly correlated with the needs of trade: "Instead of ... producing an excess and depreciation of the currency, the issues

of the bank, when regulated by just principles, have a perpetual tendency, both by increasing the demand (for notes by encouraging an increase in the output of commodities), and diminishing the supply (through the payment in notes of principal and interest on real bills), to raise the value of the circulating medium." This implies that even an inconvertible paper currency has deflationary implications; that is, the danger of excess was much less severe than the danger of deficiency under a strict real bills rule. Even though Torrens did not explicitly recognize that increases in the supply of currency could decrease the rate of discount, his position does also imply that the stock of real bills was insensitive to changes in interest rates.

Finally, while there are similarities between Torrens's views and those of other anti-bullionists, it is still reasonable to conclude that Torrens's version of the real bills doctrine is argued more consistently and that, in the process, Torrens also develops a number of distinctive features of the doctrine. Torrens explicitly recognizes (*ibid.*, p. 155–57) that if banks were to issue paper currency backed by mortgages, government securities or "if it accommodates the merchant on the security of goods in his warehouse" (*ibid.*, p. 155), then inconvertible paper currency could be issued to excess. Specific characteristics of real mercantile bills ensured the reflux of bank notes and prevented excess issue of an inconvertible paper currency. By applying the notion of reflux to an inconvertible currency, Torrens undercuts one of the three essential avenues of reflux that Glasner (1992) identifies as applying to Fullarton. It follows that Torrens's inconvertible version of the real bills doctrine was not consistent with law of reflux as developed in Fullarton and Tooke. However, Torrens did argue that the reflux of inconvertible paper currency induced by discounting real bills was similar to the reflux associated with convertible paper currency, where the discounting process for convertible paper would be governed by the issuing bank's concern about insolvency (e.g., Torrens, 1812, p. 122).

IV. HENRY THORNTON, THE BULLIONISTS AND TORRENS⁶

Even though it is pedagogically appealing to draw a sharp contrast between the views of Torrens, the anti-bullionist, with those of the bullionists as in Robbins (1958, p. 74), the profound influence that Adam Smith had over political economy in the early nineteenth century meant that there were definite similarities in the theoretical frameworks used by Torrens and the moderate bullionists. As an ardent follower of Smith, Torrens adopted some of Smith's framework for a convertible currency and adapted it to the inconvertible case. To this end, Torrens's anti-bullionist position is contrasted with the moderate bullionist position of the important classical monetary theorist, Henry Thornton, in order to establish points of either correspondence or lack of similarity. While there

⁶ The anti-bullionist Torrens makes no direct reference to Thornton in the *Essay*, though there is specific discussion of arguments raised in "the report of the committee, appointed to enquire into the high price of bullion" (Torrens, 1812, p. 128). In addition, chapter 2 of part 2 of the *Essay* is concerned with a discussion of "Mr. Huskisson's Pamphlet." The neglect of Thornton does not carry over to the *Principles* where Thornton is mentioned, favorably, in reference to the Lords' Committee Report on Peel's Act (Torrens, 1858, p. 167–71).

were differences within the bullionist camp, Thornton's contribution is the most cogent statement of the bullionist position, as has been argued by numerous authorities such as F. A. Hayek (1939, p. 36–37), John Hicks (1967), Charles Rist (1940), Lloyd Mints (1945), D. Reisman (1971) and Neil Skaggs (1995). On real bills, Mints (1945, p. 82) selects Thornton's work as meriting special consideration: "During the period of Restriction there were ... men who explicitly objected to the real bills doctrine ... Henry Thornton, Lord King, John Leslie Foster, Dugald Stewart, William Blake, Francis Horner, William Huskisson and Ricardo. Among these men the work of Thornton is outstanding."

Arguably, Thornton was at his best in his attempt to discredit the inconvertible version of the real bills doctrine, a proposition which, as an anti-bullionist, was central to Torrens's defense of the Bank's actions. Thornton's main theoretical arguments combined a sophisticated version of the Quantity Theory with the empirical observation that the demand for credit represented by discounted real bills was interest sensitive.⁷ Thornton advanced a number of reasons for the failure of the real bills doctrine. Perhaps the most forceful bullionist arguments against the validity of the real bills doctrine for an inconvertible currency are concerned with the so-called real bills fallacy: the anti-bullionist assertion that the needs of trade are independent of the amount of money that is issued. The empirical question posed by the real bills fallacy was a key point of contention between bullionists and anti-bullionists: why would Bank notes, properly issued by discounting legitimate mercantile bills, flow back to the Bank, rather than into circulation?

In defense of the resumption of convertibility, Thornton and other members of the Bullion Committee pointed out a number of substantive and insightful reasons why the note issue, when inconvertible, would have a tendency to excess even when banks discounted only genuine real bills.⁸ The Bullion Committee *Report* represents an indictment of the inconvertible version of the real bills doctrine. As bullionists, the Committee used the standard bullionist measures of excess. To quote Thornton (1802, p. 192): "It is the maintenance of the 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." In criticizing the real bills fallacy, bullionists argued that, once in circulation, excess note issues would raise spending and prices, increasing money demand and generating a permanent depreciation of the currency, at best, and an inflationary spiral, at worst. Hence, allowing that excess issue is possible, increases in the price level would raise the nominal value of real bills marking up the value of the assets from which the monetary base is derived. Without convertibility, there is the potential for an inflation to feed on itself producing an unstable relationship between the money stock and prices: the price level is indeterminate.

⁷ More precisely, Thornton maintained that the demand for bank loans was sensitive to the difference between the anticipated profit rate, a precursor of the Wicksellian natural rate, and the Bank rate for loans.

⁸ The *Report from the Select Committee on the High Price of Bullion* (1810) is reproduced in Cannan (1925). Page references to the Bullion Report in the text are to that copy.

There were a number of variations on the arguments against the real bills fallacy. One variation of the argument observed that commodities could be sold a number of times, with each transaction theoretically giving rise to a real bill. This implies a potentially uncontrollable asset base for domestic note issues. Extending the length of credit would have a similar effect:

If it should be said that the bank loans ought to be afforded only to traders, and on the security of real bills, that is to say, of bills drawn on the occasion of an actual sale of goods, let it be remembered that real bills ... may be multiplied to an extremely great extent; and, moreover, that it is only necessary sufficiently to extend the customary length of credit, in order to effect the greatest imaginable multiplication of them (*ibid.*, p. 252–53).

This basic analysis provided a significant part of the theoretical foundation for Thornton and the Bullion Committee to criticize the Bank's adherence to the inconvertible version of the real bills doctrine. The Bullion Committee's recommendation for preventing excess issue was to call for a return to gold. In support of the inconvertible form of the real bills doctrine, in the *Essay* Torrens argued against these bullionist positions on empirical grounds, even though he later adopted some of these bullionist arguments in his criticisms of Fullarton and Tooke in the *Principles*.

As a moderate bullionist, Thornton admitted the possibility of real and apparent depreciation, a position which Torrens also adopted. As discussed by Hicks (1967), Thornton's analysis, which supported the distinction between real and apparent depreciation, incorporated both the short and the long run to allow him to argue that a premium on bullion, evidenced by depreciated exchanges, was not necessarily the result of over issue: "By the term 'permanently', I ... mean such a degree of permanence as may serve to show that the fall of our exchanges, and the rise in the price of bullion are not referable to any extraordinary and pressing event, such as that of one or even of two particularly bad harvests" (Thornton, 1802, p. 211). Thornton identifies the 10% fall in the exchanges which accompanied the introduction of Restriction with apparent depreciation. Torrens adopted a similar position but also recognized that apparent depreciation had significant implications for his measure of excess. As a matter of long run or "permanent" policy Thornton was squarely in the bullionist camp. Torrens also favored convertibility in an abstract sense but, writing prior to Resumption, was seriously enough concerned about the deflationary implications associated with the transition to convertibility to argue against Resumption.

The deflationary implications of a "severe" contraction of a convertible note issue on commercial activity were a serious concern for Thornton, a view which was always of fundamental importance to Torrens. Both Thornton and Torrens recognized that gold flows due to an unfavorable balance of trade were induced both by potential overissue of paper currency and by non-monetary events, such as harvest failures. Internal gold drains could also occur due to fluctuations in public confidence triggered by events such as bank failures and, in the case of Restriction, fear of invasion (*ibid.*, p. 111–12). In the case of trade imbalances due to real events and substantial drops in public confidence, the Bank "must ... at some point stop in respect to the reduction of its notes, however

progressive may be the drain upon it for guineas" (ibid., p. 124) in order to avoid exacerbating the potential deflation. If it did not, the supply of credit could be significantly impaired and there may be widespread failure of banking establishments. Even though the Bank may hold a substantial stock of gold: "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" (ibid., p. 126).

Making allowances for changes in the velocity of circulation, Thornton felt it was the total quantity of notes in circulation, and not the manner in which they are issued, that is of importance. While the real bills fallacy is often cited to dismiss the real bills doctrine, another strong argument for excess issue under a real bills system made in both *Paper Credit* and the Bullion Report depended on the assumption of interest sensitivity of the discounting of real bills. Assuming that the mercantile rate of profit, a concept similar to the Natural Rate of Interest, was above the Usury-Law constrained 5% discount rate, "not even the largest issue of bank notes could produce any permanent diminution of the demand for them." This is because: "The borrowers, in consequence of that artificial state of things which is produced by the law against usury, obtain their loans too cheap" (ibid., p. 255). Again, this implies that a real bills based money supply is unstable. However, the possibility of regulating the amount of paper currency by varying the discount rate is recognized: "It might, undoubtedly, at all seasons, sufficiently limit its paper by means of the price at which it lends, if the legislature did not interpose an obstacle to the constant adoption of this principle of restriction" (ibid., p. 254).

One basis for the anti-bullionist response to the bullionist arguments against the real bills doctrine was implicitly to deny interest sensitivity of the stock of real bills available for discount. As discussed in Section III, Torrens's view about the deflationary implications of strict adherence to the real bills doctrine implied an empirical tendency for paper currency demand, determined by the needs of trade, to be generally greater than the supply of genuine real bills available for discount. This notion that there were real limitations on the supply of real bills did have support in the banking community. To quote John Whitmore, a Governor of the Bank of England during the Restriction Period, on the Bank's discounting practices: "In my view of the subject, nobody would pay three percent even, or indeed any interest on money (not required for legitimate commercial purposes), unless it were for the purpose of employing it for speculation, and provided that the conduct of the Bank is regulated as it now is, no accommodation would be given to a person of that description."⁹ The standard anti-bullionist position was to defend the Bank's discount policy as being based on adequate regulation of the quality of bills discounted, not the quantity of currency in circulation. This relied on the empirical observation that, regardless of the level of the discount rate, the interest paid on discounted bills would prevent any legitimate commercial borrower from retaining unneeded notes.¹⁰

⁹ This and similar quotes can be found in *Parliamentary Papers*, 1810, vol. 3.

¹⁰ See L. Mints (1945, p. 48) for a sampling of the primary literature on this point.

In contrast to Thornton, the anti-bullionist Torrens maintained that for excessive issue to be avoided, bankers must follow a strict discounting rule. Thornton's view was that even following a strict real bills discounting procedure was insufficient due to a large interest sensitive stock of bills available for discount.¹¹ As a prominent London banker, Thornton was undoubtedly in a position, at least inferentially, to assess the availability of the stock of real and fictitious bills available for discount. He recognizes the difficulty of distinguishing between real and fictitious bills: "In order to justify the supposition that a real bill ... represents actual property, there ought to be some power to prevent the property ... being turned to other purposes No such power exists" (Thornton, 1802, p. 86); "To determine what bills are fictitious, or bills of accommodation, and what are real, is often a point of difficulty" (*ibid.*, p. 89). The potential size of the stock of "real" bills available for discount is estimated to be "... at all times greater than the amount of all the bank notes of every kind, and of all the circulating guineas" (*ibid.*, p. 94). It follows that Thornton's views on the real bills doctrine are predicated on an empirical assessment of the availability of bills available for discount and the practices of the banks of circulation in discounting bills.

V. TORRENS AND THE CURRENCY SCHOOL

Was Torrens able to justify an inconvertible version of the real bills doctrine against the criticisms of the bullionists, such as Thornton? This is a difficult question to answer. Theoretically, Torrens provided an implicit framework within which an inconvertible real-bills-based system of money supply could operate: underemployment, a relatively small and interest-inelastic supply of real bills, and a compliant Bank which was able to discern between legitimate and fictitious bills and initiate discounts only for short periods. Measuring excess in terms of the prices of coarse goods not involved in international trade established a potentially attainable and measurable standard by which it could be determined if the Bank had issued notes to excess. Unfortunately, the Bank did not always adhere to a strict interpretation of the real bills doctrine. Torrens's gradual realization of this point reinforced his recommendation of the need to significantly restrict the Bank's activities, a position he carried forward into his Currency School views: automatic control over the monetary authorities was required to ensure that monetary rules operated effectively. If strict rules for issuing paper currency were followed, inflationary excess would be avoided, although there may be periods of apparent exchange depreciation and temporary price level increases.

The empirical issue of evaluating whether discounting only legitimate mercantile bills was capable of returning notes to the Bank before the associated increase in spending raised prices depends fundamentally on assumptions made about the assets involved in the discounting process. The demands of the government on the Bank to support war-related expenditures which produced the

¹¹ This is a crucial point on which Torrens appears to have changed his position over time (Torrens, 1812, p. 150-53 versus Torrens, 1858, p. 203-09).

apparent depreciation of the exchanges would have had a similar impact on domestic spending producing an "apparent" rather than a real increase in prices of non-traded goods. More importantly, the empirical issue of assessing the validity of the real bills doctrine is moot if the banks of circulation cannot be made to adhere to a strict real bills discounting rule. By 1819, Torrens recognized that the Bank, despite the assertions of the management, would not always operate in conformity with the real bills doctrine. By 1826, writing in the context of maintaining a convertible currency, Torrens had an even stronger view: "It is in the interest of Banks which issue paper, to keep in circulation as large an amount of their notes as possible. This occasions a constant tendency toward excess" (Torrens, 1826, p. 298). In the *Principles*, Torrens had progressed to almost complete cynicism about banking practices: "... illegitimate trade ... might be resorted to ... and this fraudulent, yet losing process, might be prolonged through the aid of incautious bankers, to the certain injury of themselves, of the honest trader, and of the community at large" (Torrens, 1858, p. 88).

In the face of limited empirical support for his theoretical anti-bullionist model based on his version of the real bills doctrine, Torrens also came to question whether his measure of excess could be implemented. In the *Comparative Estimate* (Torrens, 1819, p. 46-47) Torrens recognizes that the anti-bullionists were mistaken in denying "that the standard must be found in some commodity possessing intrinsic value." Speaking to the issue of measuring excess for a convertible paper currency in 1826, Torrens observed:

During the process by which Coin is displaced and the value of Bullion in the home Market depressed a rise in the price not of bullion but of other commodities in general is the only symptom of redundant currency which is exhibited. But a rise in the price of commodities in general cannot always be ascertained;—the extent of such rise never. Amid the fluctuations of demand and supply which are constantly occurring in the Market some articles rise and some fall while other remain stationary ... Amid such equivocal and contradictory appearances while all the Banks of circulation have an obvious interest in keeping out as much paper as possible ... it is impossible to ascertain how far and how long during a period of high confidence excessive issue and depreciation may go on.¹²

In the absence of an adequate measure for price levels and changes, it would be necessary to develop some other method of determining the appropriate adjustment for a convertible note issue in order to avoid the deflationary contractions which followed on the heels of an excess issue. Working with the requirement of convertibility, by the time of his contributions to the Currency School, Torrens had taken a position, reflected in the *Principles*, similar to Ricardo in giving no validity to either the law of reflux or the real bills doctrine as a method of preventing excess issue.

Much has been made by Robbins (1958, p. 87-89) and others of the apparent contradictions between Torrens's views as a leader of the Currency School and

¹² *On the Means of Establishing a cheap, secure and uniform Currency; and of Placing in the Treasury, for the Public service, the sum of £25,000,000* (Torrens, 1826 as quoted in O'Brien, 1965, p. 297).

as an anti-bullionist: "for his complete *volte-face* on matters relating to money and banking, it seems impossible to find any explanation" (*ibid.*, p. 74).¹³ The contradictions are best illustrated in Torrens's strikingly modern anti-bullionist position on the resumption of convertibility, that the enforcement of convertibility as the method for preventing excess issue was somewhat drastic:

convertibility has profound inconveniences. If bankers were under this obligation, then not infrequently, they would "find it to their interest to refuse to discount the most substantial bills," and "merchants will be discouraged by way of that accommodation which under another system they might obtain." Moreover "in a sudden emergency" it may involve insolvency, banks must close down "and the country will feel all the miseries, attendant on a sudden and extensive diminution of the circulating medium!"¹⁴

This position, taken in 1812, is seemingly at odds with the Currency principle that a mixed currency of paper and specie would operate properly only if it operated precisely as would a metallic currency (e.g., Viner, 1937, p. 221). Robbins claims that the "one hundred and eighty degree" turn in Torrens's position is particularly puzzling because Torrens himself did not publicly admit to any substantive contradiction while he readily admitted to changing his views in other areas.

D. O'Brien questions Robbins's view on the issue of whether Torrens admitted to changing his views. O'Brien (1965) bases his position on quotes from private letters written by Torrens to Lord Overstone referring to James Wilson's *Capital, Currency and Banking* (1847), which credited the real bills doctrine of Torrens's *Essay*: "The most able reasoning with which we have met in favour of (the real bills doctrine), is in a very clever work by Colonel Torrens published in 1812." In a copy of a letter accompanying Wilson's book, Torrens wrote to Overstone: "The tract to which (Wilson) refers has been out of print for thirty years But as my original sin is still remembered against me, is it not right that I should acknowledge my iniquity and express my contrition?" Lord Overstone recommended against public acknowledgement, advice which Torrens followed. Accepting that Torrens privately recognized the substantial change in his position which, for presumably political reasons, he was reluctant to admit to in public, O'Brien fails to develop adequately the underlying rationale for the abandonment of the real bills doctrine, the basis for the "original sin." Instead, O'Brien opts for an interesting but largely chronological examination of the change in Torrens's views.

At the risk of being an apologist, the record of his monetary thought does indicate that Torrens's views on the real bills doctrine and the law of reflux

¹³ Torrens produced considerably more writings as a member of the Currency School than as an anti-bullionist. The most comprehensive statement of his later views can be found in *Principles and Practical Operation of Sir Robert Peel's Bill of 1844 Explained, and Defended Against the Objections of Tooke, Fullarton and Wilson*, which was first published in 1848, with further editions in 1857 and 1858. The importance of this work is assessed by Robbins: "Whether its arguments be accepted or not, it must be regarded as one of the great classical texts on the theory of money and banking" (Robbins, 1958, p. 95).

¹⁴ As quoted in Robbins, 1958, p. 78, from the *Essay on Money and Paper Credit* (1812).

evolved under the influence of empirical evidence which tended to bring the assumptions underlying his early position into question. Far from being an extreme theoretical anti-bullionist, his writings in both periods had elements which were in agreement with those of moderate bullionists, such as Thornton. In the twelve year period separating his writings as an anti-bullionist and his contributions as a leader of the Currency School, the domestic and international financial system evolved considerably, especially in the introduction of joint stock banks, the expanded use of deposit banking and, most importantly, the Resumption of cash payments. During this time, Torrens's view of banking practices evolved into a scepticism of banks of circulation which receives full expression in the *Principles* (Torrens, 1858, p. 220):

the provincial banks had the power which, previous to the Act of 1844, they too frequently exercised, of issuing additional notes to those who chose to borrow them, until the diminution of their reserve in the money of the metropolis compelled them to stop payment; and, on the self-same principle, the Bank of England possessed the power, which it too frequently exercised, of increasing its issues and diminishing its command of the money of the world, until its approach to the verge of insolvency compelled a terrific recoil, tearing down commercial credit.

The abstraction of Torrens's theoretical real bills model, based presumably on the public statements of important bankers, merchants and statesmen, was found to be incompatible with actual banking practices.

A fundamental difference between the anti-bullionist Torrens and the moderate bullionist Thornton concerned an empirical disagreement over the supply of genuine real bills and the related discounting practices of the banks of circulation. On this empirical issue, Torrens definitely came to adopt a position similar to Thornton. This issue was of central importance in evaluating the implications of the Bank adhering to a strict real bills view. For an inconvertible currency, Torrens required the real bills doctrine to be followed in order for excess issue to be avoided. However, under convertibility, Torrens of the Currency School recognized the importance of another, more important rule of banking which is also clearly stated in the *Essay* (Torrens, 1858, p. 115-21): "The primary rule of legitimate banking, without a strict and constant adherence to which no ordinary bank of deposit and discount can be secured against insolvency, is the maintenance of a due proportion between liabilities and reserve" (Torrens, 1858, p. 77). Torrens the anti-bullionist clearly recognized that convertibility provided a more rigid requirement on banks of discount than that imposed by adherence to the real bills doctrine: "However cautious the directors of the bank may be—whatever number of good bills they may, from prudential motives, refuse to discount,—yet, if they issue paper at all, they cannot have in their coffers, a pound in gold and silver, for every pound note they issue" (Torrens, 1812, p. 115). For Torrens, avoiding excess issue was the primary difficulty for managing an inconvertible currency. Convertibility required bankers to be concerned with two additional factors, alarm and the course of the foreign exchanges (*ibid.*, p. 102).

Unlike the evolution of his views on banking practices, Torrens's view on the

law of reflux advanced by Fullarton and Tooke is consistent with his anti-bullionist position. Even in the *Essay*, Torrens recognized the possibility of excess issue if a strict real bills discounting practice was not followed. Given the additional difficulties posed by the requirements of convertibility, it is not surprising that Torrens found the possibility of a general law of reflux to be wanting: "If there be, in the science of political economy, any one principle more thoroughly established than another by fact and experience, it is the principle that banks possess a power of over-issue. The history of banking is one continuous verification of this principle" (Torrens, 1858, p. 236). As an anti-bullionist, Torrens maintained that strict adherence to the real bills doctrine was required to avoid excess issue. Over time, this position could not be supported based on his observations about actual banking practices. As a leader of the Currency School, Torrens had abandoned his earlier optimistic view of banking practices, providing no possible avenue for giving even limited credence to the real bills doctrine.

In addition to changing his empirical assessment of banking practices, Torrens of the Currency School also adopted certain arguments which are somewhat inconsistent with his anti-bullionist views. As a leader of the Currency School, Torrens was concerned with the maintenance of convertibility and the identification of rules that would insure convertibility. In this role, he was a staunch critic of the law of reflux as a guide to monetary policy. Under convertibility, the Banking School view asserted the law of reflux as proof of the impossibility of overissue. In refuting the convertible version of the law of reflux in the *Principles*, Torrens directly discusses the question: "whether the Bank of England, while making its advances by way of loan upon securities to meet the demands of commerce, possessed the power of rendering the currency redundant by issuing paper in excess" (Torrens, 1858, p. 203). Ricardo's *Reply to M. Bosanquet* is advanced as being a definite statement on the issue. In the *Principles*, Torrens also adopted arguments against the law of reflux similar to those advanced by Thornton against anti-bullionism: the role of changing interest rates "increasing and diminishing the demand for banking accommodation"; and, more importantly, the dependence of the reflux on bankers not increasing the size of their discounts in the period between when the notes are issued and when the reflux occurred (*ibid.*, p. 215-17).

Regarding Torrens's anti-bullionist criticisms about the return to a convertible paper currency, there was also considerable evolution in his views. While he retained his concerns from the *Essay* about the deflationary dangers associated with convertibility, as a member of the Currency School he did not take this to be an argument in favor of an inconvertible currency. Rather, confronted with the permanency of convertibility, Torrens saw the necessity of strict rules to insure that the Bank adhered to actions which minimized the deflationary contractions brought on by adjustment to inflationary excess issues. His analytical work in the *Principles* used a different and decidedly more abstract measure of excess: "The banknote circulation becomes redundant when its amount exceeds the amount of coin which would remain in circulation were there no banknotes in existence." This emphasis on the quantity of money is consistent with the deference that Torrens often paid to Ricardo as a theoretical precursor.

This measure of excess also raises an interesting contrast with Thornton where the use of the value of paper credit as a measure recognizes the possibility that different credit instruments can have different velocities: "gold coin is to be viewed chiefly as the standard by which all bills and paper money should have their value regulated as exactly as possible This is the great maxim to be laid down on the subject of paper credit" (Thornton, 1802, p. 111).

VI. SUMMARY AND CONCLUSION

Incorrectly claiming the paternity of Adam Smith, the doctrinaire adherence by the anti-bullionists to a real-bills-based note issue has at least a partial explanation in early 19th century British banking theory and practice. The directors of the Bank were closely tied to the English banking fraternity. Not surprisingly, the real bills doctrine was a considerable comfort both to these bankers and the Bank by providing banks with a non-interest bearing short term liability (notes) matched by a relatively riskless interest bearing short term asset (real bills). Yet, even though the motives of bankers in claiming adherence to the real bills doctrine may have been largely self-interest, in espousing the real bills doctrine to support individual bank management decisions the Bank was not without some "academic" authority. However, in a world of inconvertible paper, the source of their authority as justification for the monetary policy implications was not Adam Smith as many believed. Rather, in retrospect, the strongest arguments in support of the anti-bullionist position were provided after the release of the Bullion Report by Robert Torrens.

For Colonel Torrens, writing in the *Essay* against the prescriptions of the Bullion Report and in *Comparative Estimate* against the Resumption of cash payments, both of which advised considerable restrictions in Bank discounts, deflation was the primary monetary evil. Restriction was direct evidence of the difficulties of maintaining convertibility, particularly in the face of difficulties brought on by the Napoleonic War. In aid of the position advanced by prominent bankers, merchants and statesmen, Torrens brought his analytical powers to bear on the difficult problem of justifying an inconvertible paper currency based on the real bills doctrine. His model assumed that banks of circulation adhered to strict real bills discounting policies, that there was underemployment and that there were implicit restrictions on the supply of real bills. Using these assumptions, Torrens developed a plausible model in support of the anti-bullionist position. Recognizing that bankers were fallible, Torrens also developed a novel measure of excess issue based on the price of coarse goods not involved in international trade. Using this measure, it was possible to ascertain whether notes had been issued to excess.

In the face of empirical evidence denying certain basic premises underlying his theoretical framework, some features of Torrens's monetary and banking theory underwent considerable change over time. Most significant of these changes is the evolution from substantial faith in the banking fraternity, reflected in the *Essay*, to the detailed cynicism about banking practices, reflected in the *Principles*. For Torrens, the anti-bullionist, strict real bills discounting practices were required for reflux to operate. His theoretical position became

moot as he came to recognize that the banks of circulation, and the important business establishments they supplied with credit, often engaged in practices which amounted to keeping up as large a circulation of notes as possible. Similarly, even if bankers were disposed to prevent excess issue, in the absence of a developed theory of price indices, his measure of excess was difficult to operationalize. Some measure of excess was required and, in keeping with the views of Adam Smith and later Ricardo, precious metals were a difficult choice to avoid. The Resumption of convertibility and the ensuing need to maintain international equilibrium in the presence of both real and apparent depreciation led Torrens to a different theoretical framework.

Despite apparent changes in his theoretical approach, there are a number of constant themes throughout Torrens's work. Torrens was always concerned with developing a monetary system which could take advantage of the benefits that paper currency possessed over precious metals. This was combined with a deep concern over the social costs of deflation, which was often brought on by a sharp adjustment to inflationary excess. For an inconvertible currency this could occur during Resumption; for a mixed convertible currency this would be a regular occurrence during the adjustment process to international equilibrium. Despite his staunch support of the Bank in his early writings, Torrens was always an advocate of automatic rules restricting the activities of the banks of circulation. On this point, Torrens always differed significantly from Thornton who, as a leading member of the banking fraternity, maintained that the Bank had to exercise discretionary authority in order to manage the supply of Bank notes to maintain long run stability in the exchanges, commodity prices and the price of gold. However, on the practical workings of the real bills doctrine, Torrens came to agree with Thornton: "... that there may be a disposition among very rich and punctual men to borrow a sum far exceeding that which it may be prudent in the bank to lend" (Torrens, 1802, p. 227). The need to maintain public confidence and afford accommodation to mercantile interests was only a rationale for excess issue propelled by adherence to the real bills doctrine: "it is obvious that the principle of lending, simply in proportion to the property of those who desire to borrow, cannot be a safe one."

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