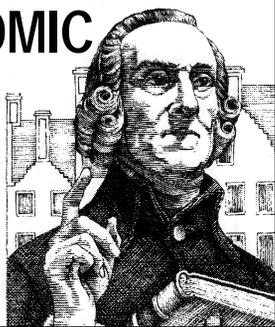


ADAM SMITH ON MONEY, BANKING AND MACROECONOMIC ORDER

ANDREW FARRANT



Money buys goods and goods buy money; but goods do not buy goods. (Clower, 1969, pp. 207-208)

Money has become in all civilized nations the universal instrument of commerce, by the intervention of which goods of all kinds are bought and sold, or exchanged for one another. (Smith, 1776, p. 44)

The achievements of Adam Smith in the realm of monetary theory have been subject to a somewhat mixed assessment. Opinion ranges from his being considered a “better monetary economist” than usually given credit for (Laidler, 1981, p. 184); to his castigation as the “first thoroughgoing exponent of the [fallacious] real-bills doctrine”. (Mints, 1945, p. 25) This paper will explore the extent to which Smith’s analysis of monetary phenomena plays a crucial role in his general perspective upon the manner in which economic development occurs. In particular, I shall seek to reconstruct Smith’s theory of the banking process, and shall then utilise this reconstruction to shed some light upon Smith’s conception of macroeconomic order.

The quality of Smith’s insightful discussion of the evolution¹ — and origins — of monetary exchange is equal to any that can be found in a modern introductory treatment of the subject. ‘Commercial Society’ is correctly held to rest upon the foundations of an extensive division of labour. Such specialisation is only possible if men are able to exchange with ease their respective surplus produce. Absent the frequent occurrence of a double coincidence of wants, the power of exchanging such surpluses would be “very much clogged and embarrassed in its oper-

ations.” (Smith, 1979 [1776], p. 37) The growth of the division of labour would be greatly impeded, and with it, the advance of the commercial order. This necessarily entails that men will be of mutually less service to one another. To overcome the problems arising from the highly infrequent occurrence of a double coincidence of wants, the availability of a highly liquid medium of exchange is vital.

Smith argues that a prudent “man in every period of society” will seek to always hold a quantity of some commodity such as “he imagined few people would be likely to refuse in exchange for the produce of their industry”. (Smith, 1979 [1776], p. 38) Although many different commodities have functioned as a medium of exchange throughout history, in Smith’s eyes there are “irresistible reasons” as to why it is that the precious metals have proven to be the most favoured form for exchange media to take. Pre-eminent amongst these reasons are the qualities of high durability possessed by the precious metals, and their capacity to be sub-divided with a relative degree of precision. The further development of coinage, allowed merchants to avoid the costs that resulted from having to assay raw metal. In Smith’s view, money serves purely as an intermediary. The farmer sells

his rude produce for money, with which he can purchase, wherever it is to be had, the manufactured produce he has occasion for. (Smith, 1979, p. 284)

In a ‘rude state’ of society, primitive man has no need of ‘stock’ (wage goods). An advanced society however, would flounder in the absence of stock with which maintain the labourer. In Smith’s discussion of the ‘circular flow’ of income, he distinguishes between the gross and net components of revenue. Net revenue is equivalent to gross revenue less the expense of maintaining fixed capital. The maintenance of the monetary component of circulating capital, likewise necessitates a decrease in net revenue, and it is the size of the latter, upon which the satisfaction of consumption is dependent. A certain quantity of valuable metals and labour is employed in

supporting that great but expensive instrument of commerce, by means of which every individual in the society has his subsistence, conveniences, and amusements, regularly distributed to him in their proper proportions. (Smith, 1979, p. 289)

Due to this expense, there is less stock available with which to augment that reserved for “immediate consumption”. In the same fashion as a reduction in the cost of maintaining fixed capital will facilitate an increase in net revenue, then so a reduction in the expense of maintaining the monetary ‘wheel of circulation’ would do likewise. To substitute paper for gold and silver, would replace “a very expensive instrument of commerce with one much less costly, and sometimes equally convenient.” Every saving and decrease in the expense of collecting and supporting the specie component of circulating capital engenders an improvement. The manner by which such substitution is to occur, leads Smith on to his analysis of the crucial role played by the banking system.

The requisite fiduciary substitution is facilitated by the “judicious operations” of the banking system. Smith

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posits that one million pounds of circulating money (initially specie) will suffice for the requirements of society. Assuming a 20% reserve ratio of specie against outstanding liabilities,² Smith explains how the issue of one million pounds in promissory notes will increase the monetary circulation to £1,800,000.³ The excess money stock {£800,000} will overflow the “channels of circulation”. The bank’s promissory notes are not current abroad, and thus the £800,000 of specie will be sent abroad in exchange for goods. The extent to which the supply of ‘stock’ is augmented by such an export of specie will be dependent upon whether the imported foreign goods are consumed by “idle” people, or are utilised by the “industrious” to employ additional labour. If employed in the first manner, then in Smith’s eyes, such fiduciary substitution would merely serve to promote “prodigality”.

THE SMITHIAN MODEL RECONSTRUCTED: THE INDIVIDUAL BANK OF ISSUE

Smith seeks to illustrate his substantive theoretical point by means of reference to Scottish experience. The expenses “common to every branch of trade” aside, each bank is faced with the liquidity costs that are incumbent upon its maintenance of a sufficient specie-reserve. These liquidity costs can be broken down thus: {a} a foregone interest return which constitutes the opportunity cost of holding a metallic reserve; {b} the costs of replenishing its reserves when faced with demands for redemption as a result of overissue. Generally, Smith contends that each bank is faced with increasing (marginal)⁴ liquidity costs as it expands its note issue in excess of the ‘needs of trade’. Smith holds that {a} increases in greater proportion than the return to be made from purchasing interest bearing assets. This (Smith contends) is because the quantity of specie that is necessary to maintain an ‘adequate’ reserve, increases in a greater proportion than the excessive issue. Liquidity costs — {b} — will be increased further by the additional expense of replenishing the bank’s coffers, given the reduction in the domestic specie supply that fiduciary substitution allows.

Smith’s initial assumption is that the ‘channels of circulation’ can employ no more than £40,000 of Bank A’s promissory notes. (A reserve ratio of 25% is assumed.) If Bank A were to expand its issue to £44,000 it would — contends Smith — face an immediate ‘reflux’ of the excess £4,000 of notes. To maintain a circulation of £44,000 would require that Bank A maintained a specie reserve of £14,000.⁵ Of the effectiveness of with which the note ‘reflux’ curbs excess issue, Smith writes:

There would immediately, therefore, be a run upon the banks to the whole extent of this superfluous paper, and, if they showed any difficulty or backwardness in payment; the alarm, which this would occasion, necessarily increasing the run.

(Smith, 1979, p. 301)

Smith outlines a number of procedural rules that he considers to be the foundations of responsible banking practice. The amount of paper that a bank can safely issue is held to be equivalent to the stock of money — precautionary reserve — that merchants hold in order to bridge

the gap between receipts and payments. Fiduciary substitution will enable this ‘metallic capital’ to be put to productive work. Smith considers it to be of paramount importance that a bank does not lend ‘fictitious capital’.

What a bank can with propriety advance to a merchant or undertaker of any kind, is not, either the **whole capital** with which he trades, or even a **considerable part** of that capital; but that part of it only, which he would otherwise be obliged to keep by him unemployed, and in ready money for answering occasional demands.

(Smith, 1979, p. 304, emphasis added.)

Adherence to such rules is alleged to enable an individual bank to avoid systematic over-issue and bankruptcy. The restriction of bank discounts to real-bills is viewed as a practical guideline that will facilitate prudent a lending policy for the individual bank.

SMITH AND THE ‘REAL-BILLS DOCTRINE’

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

(Smith, 1979, p. 304)

The real-bills doctrine is usually understood to mean that a bank cannot over-issue its liabilities provided that they are lent only upon the security of real-bills representing actual goods in process. The doctrine denies the possibility of an excess money supply if banks will adhere to a particular rule in their lending activities. Smith invokes the doctrine as a practical guideline, adherence to which should enable an individual bank to remain liquid.⁶

Smith holds that adherence to a policy of only discounting real-bills⁷ will enable a bank to synchronise its lending activity with the influx of funds from repayment of previous loans. Utilising the analogy of a bank’s reserves as being akin to a ‘water pond’, Smith writes that:

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

(Smith, 1979, p. 304)

The ‘water pond’ analogy serves to elucidate Smith’s ideas relating to the expenses of maintaining a sufficient specie-reserve. Reserve flows serve as a ‘guideline’ by which to regulate lending policy. The question is as to whether the supply of ‘real-bills’ offered for discount constitute a reliable knowledge surrogate by which to proceed.

Smith seeks to ensure that banks do not provide ‘fictitious’ capital to be utilised in the “chimerical schemes” of “projectors”. In the eyes of such would be “over-traders”

they are thwarted by the “dastardly spirit” — (adherence to a policy of discounting real-bills) — of bank directors. To ameliorate their lack of funds they may resort to the process of “drawing and redrawing”. By such means — Smith contends — many “vast and expensive projects” were undertaken. Although the ‘projectors’ had in their “golden dreams the most distinct vision” of great profit, upon “awakening” such visions were found to be illusory. A bank that fell prey to the temptation of discounting such ‘fictitious’ bills would be assured that the monetary stream running out of its coffers was “never replaced by any stream which really run into them”. (Smith, 1979, p. 311) The reserves of such a bank would be subject to rapid depletion as:

The stream which is in this case continually running out from its coffers is necessarily larger than that which is continually running in; so that, unless they are replenished by some great and continual effort of expence, those coffers must soon be exhausted altogether. (Smith, 1979, p. 305)

Historical experience is again mustered to illustrate Smith’s theory. The Ayr Bank had fallen victim to the schemes of “chimerical projectors” and their “raising of money by circulation”. The bank had been “more liberal than any other had ever been, both in granting cash accounts, and in discounting bills of exchange.” (Smith, 1979, p. 313) Such imprudent liberality had led to an excessive issue of the Ayr Bank’s liabilities. These excess notes had in turn been returned to the Ayr Bank “in order to be exchanged for gold and silver, as fast as they were issued”. In order to stave off bankruptcy, the Ayr Bank had pursued the “ruinous course of drawing and redrawing bills upon London”. To illustrate the Ayr Bank’s scramble for funds, Smith again utilised his colourful analogy:

The project of replenishing their coffers in this manner may be compared to that of a man who had a water-pond from which a stream was continually running out, but who proposed to keep it always full by employing a number of people to go continually with buckets to a well at some miles distance in order to bring water to replenish it. (Smith, 1979, p. 316)

MONEY, BANKING, AND ECONOMIC DEVELOPMENT

Banking was undoubtedly considered by Smith to play an important role in facilitating the process of economic development. By enabling a degree of fiduciary substitution, the banking system had facilitated an expansion of the ‘stock’ that could be employed for productive purposes. Positing an early (crude) version of what became known as Say’s Law, Smith wrote that “What is annually saved is as regularly consumed as what is annually spent, and nearly in the same time too; but it is consumed by a different set of people.” (Smith, 1979, p. 338) In Smith’s eyes the sole use of money was to facilitate the circulation of consumable goods. Hence, the quantity of money that could be annually employed within a country, he considered to be determined by the value of goods to be annually circulated within it.

Although Smith envisaged that there would be no ‘leakages’ from his (relatively) crude idea of the circular flow, he did recognise that the monetary system had the potential to derange commerce.⁸ The “Daedalian wings” of paper money would not — Smith contended — secure commerce and industry as safely as the “solid ground” of gold and silver. At this juncture, the question of whether adherence to the ‘real-bills’ doctrine is a sufficient ‘rule’ for ensuring monetary — and macroeconomic — stability arises. Smith has been severely castigated for his alleged paternity of the ‘real-bills’ doctrine by many authors, (e.g.: Selgin, 1989; Mints, 1945). The ‘real-bills’ doctrine has been subjected to many devastating criticisms, but the question of whether Smith is guilty of such charges is a different matter. The discounting of ‘real-bills’ alone, is not a sufficient guide to the attainment of monetary stability. Linking the quantity of bank money — a nominal magnitude — to the quantity of bills offered for discount — another nominal magnitude - results in an indeterminate price level. There is nothing to ‘tie down’ the three nominal magnitudes under consideration — the supply of bank money, the supply of bills offered for discount, and the price level. For Smith however, the guaranteed convertibility of bank money into specie ensures that the price level is pinned down by factors that are exogenous to the banking system. The price level (goods expressed in specie) is dependent upon the relative labour cost of producing specie at the (marginal) mine. A fall in these labour costs would result in a rising price level.

It [the price level] depends upon the proportion between the quantity of labour which is necessary in order to bring a certain quantity of gold and silver to market, and that which is necessary to bring thither a certain quantity of any other sort of goods. (Smith, 1979, p. 329)

The value of metallic money equals the value of the metal that it contains, while the value of convertible paper is equal to the value of the metallic money into which it is convertible. Smith must surely be cleared of any charge relating to an indeterminate price level.⁹

Although loans are made in the form of money, either “paper, or of gold or silver”, Smith recognises that the borrower really wants the goods that money can command, rather than money itself. (Smith, 1979, p. 351) By means of a loan, the lender would “assign” to the borrower his right to a certain portion of the annual output.

It is within the context of his discussion of the effect of a new specie discovery, that Smith’s views upon the neutrality of money can be teased out. An increase in the quantity of silver is considered to have no effect, other than that of diminishing the value of the metal. All nominal magnitudes are held to adjust, but real variables remain unaffected.¹⁰ The phenomenon of ‘money illusion’ is assumed to be absent. In Smithian macroeconomics, the solution to the signal-extraction problem is unambiguous.

The “major issue in macroeconomics” (Perlman, 1989, p. 78) is that of by what mechanism the decisions made by some individuals to save are translated into decisions

by others to utilise the saved resources for investment purposes. In Smith's eyes, the banking system functions as such a mechanism. Adherence to a policy of discounting 'real-bills' — convertibility being maintained at all times, and the reflux mechanism preventing over issue — will ensure that all variables remain around their 'natural' values.

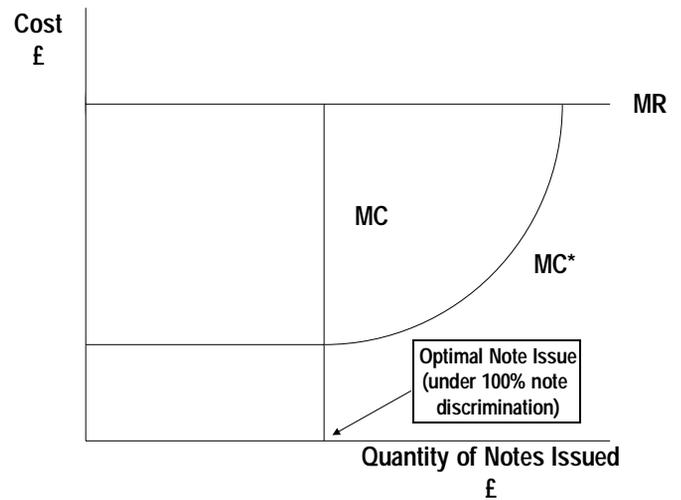
The judicious operations of banking, by providing, if I may be allowed so violent a metaphor, a sort of waggon-way through the air; enable the country to convert, as it were a great part of its [specie] highways into good pastures and corn fields, and thereby to increase very considerably the annual produce of its land and labour. (Smith, 1979, p. 321)

NOTES

- Aspects of Smith's exposition clearly anticipate the later contributions to monetary theory made by Menger, and by Jevons respectively.
- Such a ratio emerges as the result of an individual banker's requirements for coin with which to meet adverse clearing balances and any occasional withdrawal by members of the public, rather than from any legislative edict.
- £800,000 of specie in circulating money plus £1,000,000 in promissory notes. The latter is based upon a £200,000 specie reserve.
- Although Smith did not utilise the terminology of marginal analysis, our utilisation of it here — hopefully — makes the analysis clearer.
- Smith is assuming that note holders exercise 100% note discrimination between the liabilities of each bank. With such an assumption, the demand for Bank A's liabilities (given stationary production conditions) is a determinate magnitude. A circulation of £40,000 is the optimal note issue for Bank A. Any issue beyond this point would result in adverse clearings equal to the excess issue. A lesser degree of note discrimination would facilitate a greater expansion by Bank A, because the costs of its expansion would be externalised. The adverse clearings that result from Bank A's expansion would be (partly) suffered by other non-expanding banks. An excellent — the only? — discussion of the economics of note discrimination can be found in Selgin (1988, pp. 42-46). A graphical illustration of the optimal note issue can be found in the appendix.
- Smith attempts to reconcile the two views — real-bills and 'channels of circulation' — by implying that "merchants demands for accommodation represent requirements for "ready money", as if borrowers always add funds obtained through discount to their monetary balances, thereby deepening the channels of circulation. But what guarantee is there that funds, just because they are issued on the basis of real bills, will be used to make net additions to real money balances, instead of adding to nominal expenditures on goods and labour?" (Selgin, 1989, p. 491) This point is of great importance.
- Santiago-Valiente (1988, p. 43) holds that the 'real-bills' doctrine constitutes a crucial element in "Smith's endeavour to bridge the gap between the theory of value and the theory of money by devising a 'neutral' monetary and banking system, i.e., a system capable of coordinating monetary and credit phenomena with circulation processes without disturbing 'real' exchange relations."
- Perlman (1989, p. 80) raises the question of what would happen if banks were to engage in fiduciary issue beyond that which is consistent with real macroeconomic constraints. The latter in Smith's eyes are given by the amount of metallic money that would lay idle in merchants balances.
- Perlman (1989) has correctly argued that Smith's critical view of inconvertible paper money is inconsistent with the real-bills doctrine. The latter, in its pristine form, does not necessitate a convertible currency, and contends that only the mode of issue is crucial if over issue and macro disorder is to be avoided.
- Smith wryly observes that the "deeds of assignment, like the conveyances of a verbose attorney, would be more cumbersome, but the thing assigned would be precisely the same as before, and could produce only the same effects." (Smith, 1979, p. 355)

APPENDIX

Figure 1



This diagram is adapted from Glasner (1992, p. 871).

The slope of the MC* curve reflects the extent to which note-holders exercise a distinct preference for the notes of Bank A. With discrimination equal to 100% — Smith's assumption — the MC* curve would be the same as the MC curve.

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