

THE MONETARY ECONOMICS OF BENJAMIN GRAHAM: A BRIDGE BETWEEN GOODS AND MONEY?

BY
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Benjamin Graham's amateur proposal for a commodity reserve currency (1937, 1944) has attracted the attention of professional economists and policy makers, but usually for their own prior purposes and designs. This paper places the proposal in the context of Graham's own time and the intellectual resources available to him, with a view to elucidating both Graham's own sense of the proposal and the reasons the proposal earned the reception it did.

[I]f surplus stocks do operate as a national liability rather than an asset, the fault must lie in the functioning of the business machine and not in any inherent viciousness of the surplus itself. . . . Some means must be found to restore the Goddess of Plenty to the role of benefactress-in-chief that was hers without question under a simpler economy.

Benjamin Graham (1937, pp. 16–17)

I. INTRODUCTION

The monetary economics of Benjamin Graham is essentially the economics of a commodity reserve currency system, proposed by Graham in *Storage and Stability* (1937) as a remedy for the ongoing depression in the United States, and then again in *World Commodities and World Currency* (1944) as a foundation for the post-war

Perry Mehrling, Barnard College, Columbia University, New York, NY, pgm10@columbia.edu. I would like to acknowledge my debt to Albert Hart, who long ago sparked my interest in the Graham Plan, as well as to Irving Kahn, who has continually urged its contemporary relevance. It was an invitation from Leanne Ussher that finally provoked me to put something on paper for a session at the Eastern Economics Association (Feb 2007). For helpful comments on early drafts, as well as later presentations, I thank Andre Burgstaller, Roger Sandilands, Clifford Thies, Ken Kuttner, and Pascal Bridel.

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international monetary system. Since the publication of these two books, the basic idea has been picked up by others and for other purposes,¹ but these later developments are no help in understanding Graham himself, and, in fact, arguably lead us farther away from the man. To understand his thought, we must bracket these later developments, and instead enter the world that Graham himself lived in and was trying to understand and to improve.

Graham himself was, of course, not a monetary economist, nor indeed any kind of economist at all. He was instead a kind of investment manager who made a fortune in the 1920s, lost much of it in the collapse of 1929, and turned to undergraduate teaching at Columbia University as a Depression-era source of income. His famous text *Security Analysis* (1934) came from his course on “Advanced Security Analysis,” as did his *Interpretation of Financial Statements* (1937). The ideas in these books, as popularized in *The Intelligent Investor* (1949), established Graham as a foundational figure for modern financial practice (Kahn and Milne 1977; Lowe 1994). Notwithstanding this worldly reputation, however, Graham’s own *Memoirs* (1996) reveal that in his own mind the Commodity Reserve Currency Plan was his most important contribution to posterity.

He writes that the idea for it “first came to me in the Depression of 1921 to 1922” (1996, p. 294) but after prosperity returned, he put the idea aside, until Depression returned after the 1929 crash. He presented the idea publicly for the first time at the Economic Forum of the New School for Social Research in 1932, and published that initial proposal as “Stabilized Reflation” in 1933. Subsequently, continued Depression stimulated him to expand the idea into a book in 1936–37. He remembers: “In selecting the title, I had in mind Henry George’s alliterative title *Progress and Poverty*. I dreamed that one day *Storage and Stability* would occupy a place in the economic literature beside George’s masterpiece” (p. 302).

This striking invocation of Henry George is, I suggest, the place to start in understanding the connection between Graham the financial advisor and Graham the amateur monetary economist.² Henry George argued that speculation in land values causes industrial depressions, and he proposed the remedy to make all land common property by means of his famous single tax on land. Somewhat like Henry George, Benjamin Graham saw commodity price volatility as an important cause of economic fluctuation, and proposed the remedy to have government maintain a buffer stock of commodities financed by issue of currency, adding to the store when prices fall and selling from the store when prices rise.

In Graham’s initial plan, the idea was to finance the commodity holdings by making use of the relatively new apparatus of the Federal Reserve System that had

¹Of these, perhaps the most important is the contribution of Hart, Kaldor, and Tinbergen (1963). It is significant that the emphasis of the Hart–Kaldor–Tinbergen plan is on the buffer stock dimension, not the monetary dimension. In general, modern treatment of the buffer stock idea tends to focus on individual commodities, not commodity baskets. And modern treatment of money tends to focus on improving active management, not automatic mechanisms. One exception is Hall (1982), who proposed a commodity basket monetary unit comprised of Ammonium Nitrate, Copper, Aluminum, and Plywood (ANCAP).

²The knowledgeable reader will observe that I do not follow Graham’s own suggestion that he was building on Thomas Edison’s proposal to monetize commodities (discussed in Hammes and Wills 2006) and Irving Fisher’s (1920) index stabilization plan. I read both references as the attempt of an amateur to associate himself with experts.

been established in 1913. In 1921–22, when Graham first conceived his plan, the debates over the founding of the Fed were still very much alive (Mehrling 2002), and still organized as a dispute between supporters of the real bills doctrine (J. Laurence Laughlin and his students) versus supporters of the quantity theory of money (Irving Fisher and his students). In that dispute, Graham's sympathies were clearly with the former,³ and the subsequent development of his plan can be understood as being driven largely by an attempt to make the monetary side of the plan conform to those monetary priors.

A hard money man in his bones, Graham came to see the essential feature of his plan as replacement of the international gold standard by an international commodity reserve currency. A commodity reserve currency would, Graham believed, provide an even better bridge than gold between the world of goods and the world of money. That is not what happened, however. Instead, at Bretton Woods, the gold standard was replaced by the dollar standard, and governments all over the world embraced the idea of using active money management for domestic stabilization purposes. One consequence of the global credit crisis that began in August 2007 has been a reopening of debate about the future of the dollar standard, as well as debate about the adequacy of domestic inflation targeting as the sole objective of monetary policy. Benjamin Graham's work provides provocative counterpoint to that current debate.

II. SPECULATION, INVESTMENT, AND EFFECTIVE DEMAND

The evil of speculation is perhaps the central theme of Graham and Dodd's *Security Analysis*, and the book instructs how to avoid that evil by adopting the principles of sound investment. Says Graham: "An investment operation is one which, upon thorough analysis, promises safety of principal and a satisfactory return. Operations not meeting these requirements are speculative" (1934, p. 54). Graham's principles of sound investment are intended to help the individual, but they do little to safeguard society as a whole, which remains subject to all the destabilizing consequences of speculation. Because of this, even the most conservative individual investment operation cannot really escape the evil consequences of speculation; avoidance of such an evil requires operation at the level of society as a whole.

For example, as Graham explains, the Depression of 1921–22 was largely caused by collapse of the post-war speculative boom that drove commodity prices to unsustainable levels (1934, p. 523). "Profits from inventory inflation" in 1919–20 involved expansion of bank credit to finance overvalued inventories, and the subsequent collapse of prices left the speculating companies scrambling to pay the debt (pp. 534–535). Graham's idea of a commodity reserve currency, formed during this collapse, must be understood as his attempt to tame the evils of speculation at a society-wide level. *Security Analysis* is Graham's microeconomic policy proposal, and *Storage and Stability* is his macroeconomic policy proposal, but they both have the same target: speculation.

³One influence in this regard was likely Laughlin's student, Henry Parker Willis, one of the fathers of the Federal Reserve System and a professor at Columbia University from 1919.

Graham conceived of the plan as a response to the 1921–22 Depression, but he published it only in 1933, in the aftermath (as he thought at the time) of another depression that had followed another speculative run-up in prices from 1927 to 1929.⁴ This time the problem wasn't an inventory bubble, but rather an asset-pricing bubble driven by the seductions of New-Era Theory. The most distinctive feature of 1927–1933, moreover, was not the speculation itself but rather the monetary factor. General price deflation, and the defaults it induced, had taken down even the most conservative bond investors (including Graham himself). Moreover, in the aftermath of collapse, the prospect of reflation was preventing revival of bond investment until such a date as the price level had stabilized (Graham and Dodd 1934, p. 7).

Graham offered his 1933 plan as a way to bring about a rapid recovery and then stabilization of commodity prices; that is what he means to signal with his title “Stabilized Reflation.” His idea was that such stabilization would then provide the basis for a broader economic recovery including, not incidentally, a rapid revival of the bond market. At time of publication, Graham's proposed composite commodity unit was selling for \$598.76. His proposal was for the government to raise the price to \$1000 (less than the 1923–1929 average of \$1361.30) by buying units of the composite commodity with newly issued notes.

Why did he think his plan would work? To understand Graham's macroeconomic views, it is helpful to understand their origin in the intellectual resources available to him at the time he wrote. One such resource was the discussion in the 1920s about how best to make use of the Federal Reserve System that had been put in place in 1913, but then immediately diverted by the exigencies of war finance. The Federal Reserve System, so Graham observes, was already prepared to issue Federal Reserve Notes against various kinds of eligible business *credit*, including bills secured by “readily marketable staples.” (These were one class of the so-called real bills whose eligibility for discount Graham viewed as the centrally important feature of the new Federal Reserve System.) Graham's initial plan involved skipping the credit intermediation altogether and issuing a new class of Federal Notes, distinct from the old Federal Reserve Notes, directly against the deposit of a basket of marketable commodities.⁵

By standing ready to absorb surplus commodities whenever the basket price dips more than 3% below the standard price, the plan would prevent the price of commodities from falling. Graham's answer to commodity price volatility was thus, in effect, for the government to act as a Graham–Dodd investor, buying commodities when their price falls below intrinsic value and selling when their price rises above intrinsic value. Graham would later say as much himself: “Such an arrangement would amount simply to putting the State in the role of a shrewd long-term operator in basic commodities, blessed with an unlimited bank roll” (1937, p. 39). Graham did not think that such a policy would necessarily prevent depressions completely, since

⁴The 1933 publication shows little sign of progress in Graham's thinking beyond where it likely was in 1922; the data on commodity prices have been brought up to date, but nothing else. Since 1922, Graham had apparently been focusing first on his business and then on his 1934 *Security Analysis* book.

⁵More precisely, he imagines that new notes will be issued against a combination of 40% gold and 60% composite commodity bundle, in accordance with the legal requirement for minimum gold cover.

commodity price volatility is not the only cause of depression, but it would at least eliminate the additional instability that comes from commodity price volatility.

A close reading of the 1933 plan makes clear that, at the time of writing, Graham's attention was more or less entirely on the problem of stabilizing commodity prices, and he saw the Federal Reserve System merely as a handy tool for that purpose. He was *not* thinking of any additional effects that might arise from monetary expansion. Just so, his proposed Federal Notes are a new kind of currency, but he seems to imagine that they will replace an equal amount of the older Federal Reserve Notes. Indeed, he presents his plan explicitly as an alternative to "unqualified currency inflation."

Thus, in 1933, the macroeconomic effects that Graham anticipates from his plan come not from expanding currency but rather from expanding "purchasing power." Says Graham:

The prime virtue of the plan is not that it provides more currency but that it raises the price level by taking basic commodities off the market and by *placing purchasing power directly in the hands of the producers*. The ability to turn basic goods into money at a respectable price will increase the rate of production of many basic commodities above the present subnormal level, and increase employment in these fields. The beneficial effect of this increased purchasing power will communicate itself rapidly and give a tremendous impetus to the fields of manufacture, distribution, transportation and finance (1933, pp. 190–191, my emphasis).

Anticipating that such a recovery will be rapid, Graham looks beyond it to anticipate the re-emergence of the secular problem of "overproduction." This will show up as a secular tendency for commodity prices to sag, which, under his plan, would automatically induce additional government purchases using additional Federal Notes. The basic problem of overproduction, as he sees it, is that the recipients of the new notes do not spend them. The solution, he suggests, is not monetary expansion but rather a system of redistribution to shift income (unused money balances) to the needy, who will spend it for consumption.

Ingenious as this macroeconomic argument may be, very little of it appears to have been original to Graham. Rather, at this stage in his thinking, his macroeconomics is just the macroeconomics of Hobson (1922) applied to American conditions. Writing well before Keynes made the term famous, Hobson attributed the problem of unemployment to a lack of "effective demand," which problem has its source in maldistribution of income between the rich who save and the workers who consume. According to Hobson, what the economy needs in order to achieve full employment is a greater amount of consumption relative to income, and that can be achieved by redistributing income to the working class. By contrast to Hobson, Graham's plan works first by channeling more income to the farming class through the initial purchase of surplus commodities, and then later to the needy by some kind of redistributive mechanism. Graham's macroeconomics circa 1933 is simply Hobson with a twist.

Had the economy recovered as expected after 1933, probably Graham would never have written his 1937 book. But the economy did not recover. Instead, Depression continued, despite manifold and aggressive attempts at reflation under the new Roosevelt administration. Graham spent 1936–37 turning his proposal into a book in

the hope that, after trying everything else, the administration might be induced to try his plan. The proposal for an “Ever-normal Granary” by Secretary of Agriculture Wallace provided a natural entry point into contemporary policy discussion, hence Graham’s 1937 subtitle, *A Modern Ever-normal Granary*.

III. STORAGE, STABILITY, AND THE BANKING PRINCIPLE

What is new in Graham’s 1937 version is an appreciation for the monetary dimension of the crisis, and, hence, greater attention to the monetary dimension of his plan.⁶ In monetary affairs, a lot had happened in the United States during the first years of Roosevelt’s administration (Mehrling 1997, pp. 104–106). Einzig (1936) describes the period as an “orgy” of monetary reform, comprising successively experimentation with the “rubber dollar,” flirtation with deliberate monetary inflation, and monetization of silver. Graham (1937) describes it as “kaleidoscopic and revolutionary” and enumerates in detail:

The abandonment of the orthodox gold standard; the cut in the gold content of the dollar; the authorization of an unlimited amount of currency secured by “banking assets,” and the issuance of a sizable amount thereof; the further authorization, with no issuance so far, of three billion dollars in old-style fiat-money greenbacks; the actual greenbackery on a large scale involved in the silver-purchase program; the increase of money in circulation to unprecedented figures . . . (p. 145).

It is not just the monetary excesses of the 1930s New Deal that Graham rejects. He sees these excesses as the offspring of wrong-headed ideas that first gained circulation in the 1920s, wrong-headed ideas that right-thinking men had resisted more or less successfully until the victory of Roosevelt. In Graham’s view, the monetary excesses of the New Deal were nothing more than extreme versions of the various proposals of the price stabilization movement, all of which sought to use the money and credit mechanism as an indirect way to control the overall price level.

Graham makes clear where he stands:

In the conflict between ‘hard money’ and ‘soft money,’ we are definitely on the side of hard money. In the conflict between a ‘managed currency’ and an automatic currency, we are definitely on the side of an automatic, self-generating and self-liquidating currency, free of management and political pressure. Our currency belongs in the group represented by gold, the original Federal Reserve notes and (with serious reservations) silver. It is opposed to the group comprising unsecured currency, government-bond-secured currency and all ‘secured’ currency where the intrinsic value of the security is definitely less than the money issued against it (1937, p. 146).

Graham is against the management of currency but not, it is important to add, against the management of credit. Indeed, he thinks control of credit is vitally important in order to curb tendencies toward speculative excess. The focus of academics like

⁶Indeed, the commodity price problem is relegated to the end of the book. Chapters 14–15 enumerate the various measures already tried, and Chapter 16 argues the superiority of Graham’s reservoir system.

Irving Fisher (quantity control) or Knut Wicksell (interest rate control) on price stabilization is a distraction not so much because price stabilization is the wrong goal, but rather because probably the Fed does not have the tools to achieve it.⁷ The Fed should be allowed to concentrate on what it conceivably can do, which is to control credit,⁸ and leave the goal of price stabilization to be achieved by more appropriate measures, such as the Graham Plan.

In 1933, Graham had presented his plan as an alternative/addition to the Federal Reserve Note. In 1937, his plan is rather an alternative/addition to the domestic gold standard. In the new plan, “We *define* the dollar as equivalent to the commodity unit, in the same way that it was formerly defined as equivalent to 23.22 grains of pure gold. . . . It does not seem an exaggeration to say of the commodity backed dollar that it will be essentially sounder than the gold dollar” (1937, pp. 146–147).⁹ How did he think this new plan would work?

Instead of the academic’s indirect control of a general price level, Graham proposes direct control of a narrower price index—namely, the price of his composite commodity basket—by the simple mechanism of making a two-way market at a fixed price. In rejecting the money-management schemes of the academic economists, Graham intends to embrace what he sees as the conservative Banking Principle origins of the Federal Reserve System. The monetary chapters of the 1937 book are thus best read as an argument *on banking principle grounds* for the superiority of his new commodity currency.

What makes for a good form of money? There are two possibilities consistent with the Banking Principle, and both are enshrined in the Federal Reserve Act. Says Graham: “The original combination of a 40 per cent gold coverage with a 60 per cent coverage of high-grade commercial paper made this currency uniquely self-liquidating. A contraction of business borrowings would normally result in the retirement of part of this currency out of the proceeds of the repayment of the deposited commercial paper” (p. 124). In this way, the currency was designed to be both *convertible* and *self-liquidating*, the two essential features of good money.¹⁰

Given suspension of gold convertibility in 1933, and given replacement of self-liquidating commercial paper in favor of a completely specious gold certificate security,¹¹ both of these essential features had been abandoned. “It should be recognized therefore that *all the currency of the United States is on a fiduciary basis*,

⁷Experience shows, according to Graham (1937, ch. 13), that neither discount rate policy nor open market operations is a very effective tool for aggregate credit control. These are, of course, exactly the channels emphasized by those who would use them to control prices. Graham cites approvingly the criticisms in the books of Lawrence (1928) and Thomas (1936). Most telling of all, Graham explicitly associates himself with the “rather severe criticism” of Irving Fisher’s plan put forward by Benjamin Anderson (pp. 267–268).

⁸Since neither discount rate policy nor open market operations were effective, the key to credit control lay in use of the Fed’s discretionary power to vary the reserve ratio (p. 161).

⁹The original 40–60 plan survives only as a “possible variant” (p. 149).

¹⁰The currency was also designed to be *elastic*, and contemporary observers put much emphasis on that. Just so, Allyn Young (1924, p. 304): “Taking the system as a whole, it will be seen that it gives a thoroughly elastic supply of credit. It has all of the necessary elements: elastic note issue, elastic deposits and elastic reserves.” The availability of self-liquidating bills, however, was never sufficient. Simmons (1936) tracks the development of provisions for note issue.

¹¹“Specious” because payable only in dollars at a reduced gold value (Graham 1937, pp. 119, 123).

and that it will remain on that basis until an unquestionable convertibility into some medium of tangible value is again established” (p. 126, Graham’s emphasis). In such a situation, the value of the dollar depends solely on the good faith of the issuer in keeping the quantity scarce, which good faith is a rather weak reed on which to depend.¹²

That said, return to gold convertibility is not the answer, because the price of gold no longer depends on its intrinsic value, but rather is determined by its artificially inflated monetary value. This emerging defect of the orthodox gold standard is, Graham suggests, one reason for the superficial attractiveness of various schemes for managed money (p. 257, n5). The fact remains that convertibility into gold no longer provides the kind of connection to real value that is required for a good currency.¹³ So what is to be done?

The answer is to replace current Federal Reserve Notes with commodity reserve currency. Graham envisages this replacement happening gradually over time as the new money is issued by deposit of the composite commodity, and the old money is deposited into a Federal Reserve bank and removed from circulation (p. 152). Because the old notes are no longer backed by self-liquidating commercial paper, they are not themselves self-liquidating, as the original Act intended. But the new notes would be, or so Graham argues.

Given the Banking Principle foundations of Graham’s thinking about money, this is a critical argument for him, as he recognizes by placing it in the very first chapter of the book. There he advances the startling argument that not only should inventories of unsold goods be viewed as *liquid* assets, but even more that they are the *only* true liquid assets. The importance of this argument requires extended quotation:

Liquid assets are supposedly distinguished from fixed assets. They correspond to Adam Smith’s category of “circulating capital” as opposed to a “fixed capital.” This circulating capital consists of gold and silver money needed to carry on business transactions, together with *stocks of merchandise which are constantly being turned into money because they pass into consumption and which are being constantly renewed by manufacture or importation*. This classical definition is quite intelligible and useful. But liquid assets in a present day balance sheet consist of the following items, ranged in order of liquidity:

1. Cash.
2. Government securities.
3. Other marketable securities.
4. Receivables.
5. Inventories—to the extent that they are readily salable.

¹²Graham cites with approval the 1933 reprint of A.D. White’s classic *Fiat Money Inflation in France*, the implication being that such is the inevitable fate ahead for the United States should it not adopt a sounder policy.

¹³As one indication, the kind of convertibility that even supporters of the gold standard envisaged for the future was merely one-way convertibility (p. 132). You can get notes for gold, but once gold is in the coffers of central banks, it remains there. This one-way convertibility would be highlighted by Frank Graham (1940) as the “Achilles heel” of the gold standard, and a compelling reason to prefer the two-way convertibility of the Graham Plan.

(There is a growing tendency among credit men to exclude inventories entirely from the category of “liquid assets,” including them in a separate designation of “current assets” [cf. Graham and Dodd 1934, p. 151].)

If we scrutinize the first four items, we find that their liquidity is an artificial product of our financial system and has little basis in economic reality. . . . [*M*]erchandise inventories [are] the only type of asset that has a true and inherent convertibility. The liquid assets which people prize so much are in good part meaningless in the national balance sheet, canceling out against individual or national liabilities. Thus we have formed individual concepts of what constitutes wealth, and what forms of wealth are preferable to others, which have no support in concrete realities and which depend for their validity on the persistence of a fundamentally irrational mass psychology (pp. 10–11, my emphasis).

Unfortunately, so Graham continues, the same irrational mass psychology that has falsely attributed liquidity to the first four balance sheet items has also falsely removed that attribution from the last item. Business and farmers today have a “pathological fear of increasing inventories” that exacerbates economy-wide volatility. The whole purpose of the Graham Plan is to put in place a framework that will reverse this pathology by storing commodities for future use. Inventories of surplus commodities, as the only true liquid asset, provide an ideal backing for the currency of the nation.

This startling argument is apparently intended to present Graham’s commodity reserve plan as an extension of the classic real bills system enshrined in the Federal Reserve Act. That Act gave commercial bills a special legal status—i.e., eligibility for discount—on account of their supposed self-liquidating character. Commercial bills were thought to represent goods in transit toward final sale, so that the orderly realization of final sale would provide the cash needed to redeem the bill. What Graham seems to have in mind is apparently a generalization, one might even say a socialization, of that basic banking principle. But is it really?

Advocates of the real bills doctrine proposed backing currency with goods that were demonstrably on their way toward *sale*, the key demonstration of discount eligibility being a documented transfer of the goods from one stage in the production sequence to the next, which documentation is the “real bill.” By contrast, Graham proposes backing currency with goods that are demonstrably on their way toward *use*, the key demonstration of eligibility being their essential character for our lives. Graham waxes metaphysical:

[The proposal to monetize commodities] is based on the considered principle that the primary raw materials are really primary throughout the economic sphere. Not only do all the material things of life begin and develop with them; but the complex and delicately interrelated organization of business receives its first impetus and its controlling tone from this area. The economic flow has a definite *entropy*, or permanent direction, from raw materials outward. Thus our identification of the monetary medium with raw materials as a group is merely a logical synthesis of the two primary elements out of which our elaborate economic fabric is constructed (p. 229).

Graham presents his plan as a kind of extension of the real bills doctrine, but more accurately it represents a *complete reversal* of the doctrine. The strict real bills advocate is prepared to monetize only goods that have already been sold in the private market, whereas the whole point of the Graham Plan is to monetize goods that have *not* been sold because there is currently no buyer for them. The Graham Plan is for the State to buy the surplus goods, and for the banking system to treat that purchase *as if* it were a bona fide sale eligible for discount. Notwithstanding Graham's quotation of the Federal Reserve Act,¹⁴ such a transaction certainly violates the intentions of the drafters, and Graham knew it. He admits to "a very deep technical distinction between the Federal Reserve notes and the currency we propose," but insists that "the basic security behind the two currencies is not so different and their psychological appeal is likely to be much the same" (pp. 149–150). For the strict real bills advocate, however, the difference is not technical but fundamental. It is the difference between a security that is self-liquidating and one that is not. The mere fact that the State has placed goods in storage provides no assurance at all that the goods will ever come out of storage for sale to a genuine buyer.

Graham's plan is the exact opposite of the real bills doctrine in another respect as well. The Banking Principle envisages the outstanding quantity of money rising and falling with the expansion and contraction of business credit. That is what it means to meet the "needs of trade." Graham's plan works just the opposite way, since the quantity of commodity reserve money tends to rise as prices fall during depression and to contract as prices rise during expansion. Graham argues that such a policy—what we would call countercyclical rather than procyclical monetary policy—may, in fact, be a better way of meeting the true needs of trade: "If business contracts in a depression, it may be wholesomely stimulated by a timely increase in the money supply. And an unduly rapid advance in the tempo of business might well be offset by a reduction in circulation, somewhat in the same way as by a tightening of money rates" (p. 151). It looks like managed money but it is not, according to Graham, because it is automatic. (In modern economic language, we recognize that the Graham Plan involves both fiscal and monetary countercyclical elements, but both are automatic.)

Although Graham thus reverses the traditional real bills doctrine, he continues to pledge his allegiance to the most orthodox and conservative banking principles, and let it be said that such allegiance was no mere pose. Graham was, at root, a bond man, warning his readers of incipient inflation both in 1933 and in 1937! Just so, here is Graham in 1937: "Unless effective external checks are imposed, other than merely the maximum permissible ratios of deposits to gold, the country's enormous hoard of gold may generate—or at least facilitate—a new credit inflation far beyond anything hitherto experienced" (p. 157). He is a bond man but prepared to reinterpret banking principles in order to find a case for countercyclical stabilization policy; he is a kind of conservative proto-Keynesian, we might say. Where in the world did he find the intellectual resources to put something like this together?

¹⁴"Section 13(7) of the Federal Reserve Act permits member banks to accept drafts secured by a warehouse receipt, etc., covering 'readily marketable staples.' Section 16(2) makes such acceptances eligible as collateral for Federal Reserve Notes" (Graham 1937, p. 258, n7).

No doubt, exposure to the Hobsonian effective demand argument played some role in preparing the ground,¹⁵ but the origin of Graham's radical reinterpretation of orthodoxy seems to be in his reading of Berle and Pederson's 1936 *Liquid Claims and National Wealth*, which Graham cites just before the long passage just quoted (p. 238, n17).¹⁶ In that book, Berle and Pederson emphasize a change in the conception of liquidity from the classical view of goods moving toward consumption, to the modern view of shiftability on markets.¹⁷ Somewhat tendentiously, they refer to the former as "real" liquidity and the latter as "artificial," a distinction that Graham apparently echoes with his contrast of "true and inherent" versus "artificial" liquidity. There is a great deal more in the book that shows up not at all in Graham, but two passages from Chapter 2 may be cited as possibly having influenced Graham's thinking:

[There is] a major problem with which neither the economist nor the banker has yet successfully coped: namely, property which by its nature should be liquid but which is apparently making no progress toward a market or a consumer because of a stoppage or surplus. It consequently ceases to move; and while nature apparently destines it for further consumption or use, the condition of the times arrests its progress temporarily or permanently. As a matter of theory it might be argued that liquidity is of the nature of the property. But the money-lender knows better (p. 21).

A system which relied on self-liquidation, in the sense of motion towards a customer, would endeavor to stimulate consumption. For instance, many bankers today advocate a high dispersion of the national income and a high rate of wages on the theory that consumption is thereby fostered and goods move rapidly towards a market (p. 22).

I imagine Graham reading these passages soon after the book was published in 1934, or perhaps even earlier in draft or verbal form, since Adolf Berle was a professor at the Columbia Law School. Sensitized by the reference to the problem of surpluses in the first passage, Graham would have latched on to the Hobsonian policy conclusion in the second passage, as well as the suggestion that such a conclusion could be defended on completely orthodox banking grounds.

¹⁵In the 1937 version of the plan, the Hobsonian effective demand theme is downplayed (p. 89), only to be replaced by an overarching Hobsonian critique of the failures of "finance capitalism" and "the challenge of surplus." "Even the most conservative must realize that the recent transformation of surplus from an individual to a national disaster implies a scathing indictment of our capitalist system as it has now developed. . . . A business machine that is disabled by its own productivity will not long endure in this restless and dissatisfied world" (p. 17). The original Hobsonian redistribution element survives as a proposal that the new Social Security reserve fund be invested in units of the commodity currency (pp. 100–104).

¹⁶The book was a spin-off from the earlier (and more famous) book *The Modern Corporation and Private Property* (1932). Probably it is also Berle and Pederson to whom Graham refers near the end of the book when he states: "The use of these commodity units as the backing for currency becomes possible because of their inherent qualities, and also as a result of *the emergence of newer concepts in the monetary field*" (p. 213, my emphasis).

¹⁷Moulton (1918) is the origin of the shiftability view, but see also Waldo Mitchell (1923) and Lauchlin Currie (1931). The shiftability view became New Deal orthodoxy under the governorship of Marriner S. Eccles, and was enshrined in the Banking Act of 1935, which gave the Fed the power to discount any "sound" asset, not just commercial loans.

The consequence was that Graham included in the 1937 book four monetary chapters (chapters 10–13) that add a completely new dimension to the plan, and it was exactly those chapters that would turn out to be crucial for its reception. In September 1938 the Princeton professor Frank Graham (no relation) published a rave review in which he read the book as a “cogent plea for a new type of money” (F. Graham 1938). Subsequent interaction with Frank Graham was the crucial factor in the next stage of Benjamin Graham’s intellectual development, which involved extension of the commodity reserve idea into the international arena.

IV. COMMODITIES, CURRENCY, AND THE MONEY STANDARD

Unlike Ben, Frank Graham was a genuine trained economist, a student of Taussig at Harvard, with a specialty in international monetary economics. Also unlike Ben, Frank saw the problem of economic instability primarily as a monetary problem. Following the line of analysis that began emerging from the University of Chicago in the work of Henry C. Simons (1934), among others, Frank Graham had been writing approvingly of plans for 100% reserve money (F. Graham 1936a, 1936b), recognizing explicitly that such plans *reject* the banking principle. “The 100 per cent reserve plan is reactionary in the sense that it involves a return to earlier and, in my judgment, sounder methods of banking” (1936b, p. 440). “Paradoxical as it may seem, a debt of given amount which is recognized as uncollectible (inconvertible government paper) makes better money than one which is ostensibly and even, in part, actually collectible” (p. 436).

He came to this position by the following course of logic. Once we abandon full-bodied metallic currency, a fiduciary element inevitably creeps in, and the question is only whether the government or the private sector is the better location of that fiduciary element. Experience with fractional reserve banking has provided all the evidence we need of the dangers of locating any substantial fiduciary element in the private sector, and 100% reserve currency is the only logical answer. Quite apart from the question of the optimal variation of the currency—F. Graham himself favored neutral money, which meant altering the quantity to counter fluctuations in velocity—the first step should be to require that all private deposits are backed 100% by government note issue.¹⁸

Frank Graham’s embrace of fiat currency should have been anathema to the bond man, who feared inflation more than anything else. And Benjamin Graham’s embrace of the banking principle should have been equally anathema to the academic, who was convinced that monetary stability would require active management. Nevertheless, the two men could and did make common cause over the commodity reserve currency. The bond man argued, somewhat metaphysically as we have seen, that commodities on their way to use are the true liquid asset and hence are appropriate

¹⁸F. Graham explicitly realizes and approves that such a step goes even farther than the famous 1844 Bank Act that separated the Bank of England into an Issue department with 100% gold reserve against notes and a Banking department with minimal note reserve. The Banking department in fact operated as a fractional reserve bank, and Graham wants to go farther by requiring 100% reserves behind deposits as well.

assets to back the money issue. The academic argued, quite differently, that the storage plan provided the opportunity to restore the essential feature of the classical gold standard; namely, two-way convertibility.

The whole reason, so the academic argued, that fiduciary money ever got accepted in the first place was that the supply of gold grew more slowly than the economy. Even given the expansion of fiduciary money, the monetary demand for gold reserves grew more rapidly than the supply. The consequence was an artificially inflated price of gold, and so the effective elimination of two-way convertibility. New gold entered the banking system in exchange for money, but once inside, it never left and simply circulated between national central banks. The problem with this one-way convertibility is that it offered a one-way bet to currency speculators. Under the modern gold standard, currencies never appreciate against gold because the central bank simply absorbs the gold by issuing additional currency. They only depreciate. The effect is “to load the dice in favor of the bear speculator” (1940a, p. 20); instability of the international monetary system is the consequence.

One answer to the problem created by one-way convertibility is 100% reserve money in a world of flexible exchange rates (1940a, p. 25). This shifts the entire fiduciary element of the monetary system onto the balance sheet of the State, where it can be controlled. Another and better answer is commodity reserve currency along the lines of the Graham Plan (1940a, p. 32). “Except for the authorization of a large fiduciary issue which, for the sake of elasticity, would ordinarily be far from fully utilized, the central bank should be required to hold a 100 per cent goods reserve against its liabilities. The commercial banks should, in turn, be required to maintain a 100 per cent reserve in central bank liabilities against their own demand deposit obligations” (1940b, p. 13). On the margin, when private citizens want money more than goods, the government takes the goods off their hands and issues money. And when private citizens want goods more than money, the government takes the money off their hands and disgorges the stored commodities (1941, 1942).

The situation that Frank Graham envisions can be depicted with balance sheet entries as follows (for simplicity, I include only the items related to the commodity reserve plan):

Government		Central Bank		Commercial Bank		Public	
Assets	Liabilities	A	L	A	L	A	L
	Govt Debt	Govt Debt	Notes (bank) Notes (public)	Notes	Deposits	Deposits	Notes

In such an arrangement, shifts in public money demand as between deposits and notes merely change the size of the commercial bank balance sheet, but have no other effects. Shifts in aggregate money demand are met by expansion or contraction of the central bank balance sheet as commodities flow in or out automatically, depending on commodity prices. And if the central bank wishes to engage in active monetary policy, it need only buy or sell government debt.

Frank Graham's support was tremendously heartening to Benjamin Graham, since he had found it very difficult to attract any attention, either positive or negative, from the economists. (Activists were put off by his embrace of conservative banking principles? Conservatives were put off by his distortion of those principles in order to make the case for activism?) He would dedicate his next book "To Frank Dunstone Graham comrade-in-arms," and state for the record that he "is undoubtedly the second father of commodity-reserve currency" (1944, p. 137). Notwithstanding all this comradeship, however, there is no sign at all that Ben Graham ever shifted his basic Banking Principle approach. Nowhere in his subsequent work is there any fiduciary issue on the central bank balance sheet, nowhere does he ever endorse 100% reserves for commercial banks, and nowhere does he ever find an acceptable role for active monetary management.

Rather, the influence of Frank Graham comes mainly as the source of Ben Graham's idea that his plan might be extended from the domestic to the international sphere. We see that influence already in Ben's 1940 "A Program for Gold," where he calls for revaluation of gold to the 1933 level of \$20.67 per ounce for international exchange, while retaining \$35 as the domestic price. Both of these proposals follow closely F. Graham and Whittlesey (1939, ch. IX) though B. Graham does not cite the work.¹⁹ The significant difference is that B. Graham calls for fixed gold parities for all other currencies, hence a fixed exchange rate system, while F. Graham sees variable gold parity as quite compatible with stable exchange rates, and is even willing to contemplate a variable exchange rate system. The important point is that when, in the closing stage of World War II, ideas for reconstructing the international monetary system began to circulate, Ben Graham was ready.

In April 1943 the British (meaning Maynard Keynes) floated a proposal for an International Clearing Union that

might set up an account in favor of international bodies charged with the management of a commodity control, and might finance stocks of commodities held by such bodies, allowing them overdraft facilities on their accounts up to an agreed maximum. By this means the financial problem of buffer stock and ever-normal granaries could be effectively attacked (quoted in Graham 1944b, p. 86).

Soon thereafter, in the June–September issue of the *Economic Journal*, London School of Economics professor Friedrich Hayek published an article referring to Graham's 1937 book and endorsing an international version of the commodity reserve plan (Hayek 1943); the article prompted a response by Keynes himself (Keynes 1943). Subsequently, both Ben and Frank Graham exchanged letters with Keynes. Frank's letter resulted in a further contribution to the Hayek/Keynes debate (F. Graham 1944),²⁰ which prompted a further reply by Keynes (1944). Ben Graham's response was his book *World Commodities and World Currencies* (1944).

¹⁹But see B. Graham (1944, pp. 94, 134).

²⁰See also F. Graham (1943), which rejects both the Keynes and White plans in favor of "peaceful anarchy" in which countries freely choose stability if they want it by adopting a commodity reserve currency (pp. 15–18). What he has in mind is apparently an analogue to the unmanaged gold standard of the nineteenth century.

Graham tried to get his proposal on the agenda at Bretton Woods, but without success, and so he determined once again to address himself to the general public.²¹ In an effort to ensure that whatever agreement was achieved at Bretton Woods would not close the matter, he rushed to finish the book, making use for that purpose of the April 1943 British proposal, as well as the July 1943 American proposal for an International Stabilization Fund. The book was apparently nearly complete when the *Joint Statement by Experts on the Establishment of an International Monetary Fund* was released by the U.S. Treasury on April 21, 1944, in advance of the July 1–22 meeting at Bretton Woods, and Graham added a chapter to engage with the so-called Experts Plan.²² When the result of the Bretton Woods meeting proved to be more or less in line with the Experts Plan, Graham added a note in the Preface to that effect (p. ix) and the book was done.

V. BRETTON WOODS AND THE GRAHAM PLAN

In principle, the international version of the commodity reserve plan should, as Hayek (1943) makes clear, be even simpler than the domestic version that Graham had developed initially. Always the domestic version ran into trouble with international trade, and there had to be complicated workarounds to blend the domestic commodity reserve system with the international gold standard.²³ But if you implement the plan internationally, then you can do away with gold entirely, and that is exactly where Graham started his thinking. Specifically, Graham imagined an International Commodity Corporation buying and selling the composite commodity units, using funds borrowed from the International Monetary Fund, which loans are funded with deposit liabilities that serve as the international reserve held by national central banks. So we have the following arrangement:

ICC		IMF		Central Banks	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Commodities	Loans	Loans	Deposits	Deposits	Currency

²¹Graham (1944a) is a memorandum that Graham submitted to the Bretton Woods conference. Some sense of Graham's frustration with his inability to engage the economists more directly comes through in the book: "that eager and open-minded curiosity, which is so sorely needed to winnow the grain from the chaff in monetary proposals, is still far from being a conspicuous attribute of our professional economists" (p. 115).

²²Chapter 8 appears to have been written immediately after the release of the Experts Plan. The last dated citation in the chapter notes is May 26 (p. 140), and Graham states in the Preface that the book was already in press during the Bretton Woods conference.

²³B. Graham (1937) includes Chapter 17, "International Aspects of the Plan," which does not really engage the problem adequately. He imagines the US accepting commodity inflows and paying out domestic commodity-backed notes, then redeeming these notes for foreigners using the enormous US gold hoard. F. Graham is more successful, as might be expected given his background, because he is willing to embrace a flexible exchange rate between international money (gold standard) and domestic money (commodity standard).

Under this arrangement, if the world demand for money increases, that shows up as an expansion of all three of these balance sheets. Under the 1937 domestic version of the plan, new money flowed first to the farmers; under the 1944 international version, new money would flow first to whatever countries happen to be producing the commodities in the basket (p. 97). Under the domestic plan, any systematic tendency toward Hobsonian overproduction and, hence, excess accumulation of commodities was taken care of by redistribution to the needy; under the international plan, there would be room for similar programs (p. 49). So far so simple.

Graham's big problem in the book was to show how this simple plan could be integrated with the results of the Bretton Woods conference, since those results seemed to be a done deal.²⁴ As is well known, both the British and the Americans were looking for a way to stabilize exchange rates, with the goal of uniting the international monetary system. Keynes favored a kind of pure credit system that would have deficit nations building overdrafts at a Clearing Union balanced by the swelling deposits of surplus nations. The Americans, by contrast, favored a kind of 100% reserve system, but with some provision for extending loans to deficit nations (without expanding IMF deposits). In the Experts Plan, the American version prevailed.²⁵

The fund was to be established by the contribution of a "quota" by each member, 25% in gold and 75% in the national currency. In exchange, each would receive a credit to be used for international payments. Thus:

International Monetary Fund		National Central Bank	
Assets	Liabilities	Assets	Liabilities
25% Gold	Deposits	Deposits	Currency
75% Currency			

In this set-up, loans to deficit countries were to be made by a swap of the country's own currency (say British pounds) for some of the IMF's assets (say US dollars), *not* by an expansion of the IMF's liabilities. Graham decided that he could live with this, but he was not happy about it. It seemed to him just another in a long series of mechanisms by which the United States accepted payment for its exports in something worth less than those exports (p. 93). Thankfully, the Experts Plan put stronger constraints on lending than the Keynes Plan would have done. Even better though if the IMF had stuck to conservative banking principles and insisted on

²⁴ And also with emerging plans for stabilizing the prices of *individual* commodities.

²⁵ As B. Graham observes, the conference "produced two agreements, one for a world monetary fund and the other for a world capital bank" (1944, p. ix). Thus, at the world level, the conference reproduced the results of the famous 1844 Peel's Act, which separated the Bank of England into an Issue department and a Banking department. In one sense the 1944 separation was actually sharper than the 1844 separation since deposits in the 1844 Banking department still served as a form of money. But in another sense it was much softer because the lending provisions of the 1944 Issue department (IMF) allowed, even encouraged, progressive weakening of the asset backing for the new international currency. It was this latter feature that induced Frank Graham to reject both versions of the plan (1943).

lending only on good collateral, to wit, on units of the composite commodity, not sovereign fiat currency.

The other piece of the Experts Plan that bothered Graham was the revival of the importance of gold. But he decided he could live with that as well, because he understood it as essentially a sop to the gold producers (and holders). In effect, it was no different from the various sops to silver producers that were a familiar part of the American monetary scene. If we have to keep gold in the picture, he urged, at least reduce the incentive for additional gold production by pegging gold at a more reasonable \$25 rather than \$35 (p. 96). (Observe that this would have largely reversed Roosevelt's devaluation of the dollar.)²⁶

What Graham could *not* live with was the extremely tenuous connection in the Experts Plan between the world of money and the world of goods, a connection even more tenuous than in pre-war arrangements because now mediated through currency pegs to the dollar rather than directly to gold. Fortunately, since there was nothing tying down the goods value of the international monetary unit, there was plenty of room to add a commodity reserve element without introducing any irresolvable conflicts with other dimensions of the plan. Graham's proposal to add an international version of the commodity reserve currency to the Experts Plan can be understood with the following balance sheets:

ICC		IMF		Central Banks	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Commodities	Loans	Gold	Currency Loans	Deposits	Currency

In Graham's plan, central bank deposits in the IMF would be fixed in value against *both* gold and the composite commodity unit, so formally the system would be a variant of bimetallism, not a true commodity reserve system. But Graham satisfied himself that the connection to the world of goods through the composite commodity would be sufficient. Under Graham's version of the new international monetary system, deficits would be met most of the time, not by credit operations at the IMF but, rather, by "coinage" operations at the ICC. Goods that could not be sold on the market would be sold to the ICC and, as a consequence, total money balances would increase worldwide.²⁷

Graham had great hopes for his plan, which he felt had never received a proper hearing from the economists. To ensure that it got that hearing, in 1945 he engaged the Food Research Institute at Stanford to prepare an independent assessment of the proposal, which assessment was to be funded by himself and the Committee for Economic Stability (which he had founded after the 1937 book in order to proselytize

²⁶The origin of this idea is apparently Graham (1940).

²⁷To cover the case of a deficit country that might lack inventories of any of the commodities included in the designated basket—i.e., Britain—Graham proposed the creation of a Staple Goods Corporation, which would buy inventories of fabricated goods from the deficit country, and finance itself by borrowing from the IMF, though without any increase in money (p. 103).

for that proposal). The Institute brought in as their monetary expert the young Edward Shaw, a professor of monetary economics at Stanford, who was already at work on a textbook, *Money, Income, and Monetary Policy* (1950), that built explicitly on the academic foundations (Fisher and Wicksell among them) that Graham had rejected in 1937.

The Graham Plan might have its merits as a program for commodity price stabilization, so pronounced Shaw, but only if the monetary dimension of the plan is completely scrapped. The right way to finance buffer stocks is with long-term debt, not money issue (Shaw 1949). Says Shaw, “One is hard put to it to find support in the market place for the reasoning that identifies money with ‘groceries’ by stockpiling ‘groceries’” (1949, p. 34).²⁸

Coming on the heels of Viner’s (1943, p. 106) dismissal of the commodity dimension of the original Keynes Plan, and Keynes’ own assessment that the time was not right (Keynes 1944), this rejection cannot have been unexpected, but it stung nonetheless (Graham 1949). In 1947, in an article for the *American Economic Review*, Graham made his last plea: “Certain key commodities should form a broad connecting bridge between the world of goods on the one hand and the world of money on the other” (1947, p. 307). In support of the plea, he cites only his own 1944 book and Hayek (1943).

VI. CONCLUSION

It is a long, strange trip from Henry George to Friedrich von Hayek, but the link between origin and destination makes clear the foundation of Graham’s own thinking. Both George and Hayek were fundamentally concerned about the problem of the world of money getting disconnected from the world of goods. For George, the problem came from speculation by the private sector, while for Hayek it came more from the fiscal profligacy of the State. For Graham, the disconnect between the world of goods and the world of money was of concern mainly as a source of investment risk that could upset any amount of careful security selection by the conservative value investor. At root, Graham wanted to remove uncertainty about the value of money by aligning the price of money with some intrinsic value.

But something there is that apparently does not love a bridge between the world of goods and the world of money (with apologies to Robert Frost). The forces devoted to tearing down the bridge come from both private and public sectors, and in both cases from a desire to break out of the mere circular flow in order to embrace something new. The elasticity of the credit system is vital for this creative destruction, as Schumpeter (1934) long ago reminded us. Too much elasticity, of course, brings its own problems—financial crisis and inflation—but too little elasticity brings depression and stagnation.

In this context, the fate of Graham’s plan, in both domestic and international versions, must be understood fundamentally as a consequence of the fact that he was trying to impose *discipline* on the system at a time of crisis, when the private and public sectors both were desperate for *elasticity*. The proto-Keynesian expansionary

²⁸For more on Shaw, see Mehrling (1997, chs. 9–11).

aspect of the plan, a legacy of Graham's early Hobsonian leanings, was not expansionary enough to overcome the doubters. Instead of the Graham Plan, the world embarked at Bretton Woods on a different grand experiment, a dollar standard whose nominal connection to gold would be abandoned (in 1973) as soon as it was tested, leaving no bridge at all between the world of goods and the world of money, save the good offices of central bankers. The results of that different grand experiment are even now under review.

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