

The Monetary Economics of Benjamin Graham

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[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, 16-17)

The monetary economics of Benjamin Graham is essentially the economics of a commodity reserve currency system, proposed by Graham in Storage and Stability, A Modern Ever-normal Granary (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 postwar international monetary system. Since the publication of these two books, the basic idea has been picked up by others and for other purposes, but these later developments are no help in understanding Graham himself, and in fact arguably lead us farther away from the man.¹ 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

¹ Of 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.

The Intelligent Investor (1949), established Graham as a foundational figure in 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 he put it aside until the return of Depression 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. Continued Depression then 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, it will be recalled, that speculation in land values causes industrial depressions, and he went on to suggest a remedy by making 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 his own remedy. The initial plan was quite simple. He proposed to eliminate excess volatility in commodity prices by having the state maintain

² The 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.

a buffer stock of commodities financed by issue of currency that would fluctuate one for one with the commodity stocks held.

Speculation, Investment, and Effective Demand

The evil of speculation is perhaps the central theme of Graham and Dodd's Security Analysis, and the book tells the reader 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, 54). Such personal protection does little to safeguard society as a whole, however, which remains subject to all the destabilizing consequences of speculation, and those society-wide effects can overwhelm even the most conservative individual investment operation.

For example, according to Graham, the depression of 1921-22 was largely attributable to the collapse of the postwar speculative boom that drove commodity prices to unsustainable levels (p. 523). "Profits from inventory inflation" in 1919-1920 involved expansion of bank credit to finance the overvalued inventories, and the subsequent collapse of prices left the speculating companies scrambling to pay the debt (pp. 534-35). The idea of a commodity reserve currency, formed during this collapse, must be understood as Graham's attempt to tame the evils of speculation at a society-wide level. Security Analysis is Graham's microeconomics, and Storage and Stability is his macroeconomics, but they both have the same target.

Graham first 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. This time it wasn't an inventory bubble, 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 investor (like Graham himself) during the collapse. And in the aftermath of collapse, the prospect of reflation was preventing any revival of bond investment until such a date as the price level had stabilized, the sooner the better (1934, 7). This is the context in which Graham first decided to publish his plan.

To understand Graham's macroeconomic views, it is helpful to understand their origin in the intellectual resources available to Graham 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 diverted during the war due to the exigencies of war finance. Another such resource was the pseudo-Keynesian ideas of John Hobson. Both of these resources are more clearly detectable in the 8-page 1933 proposal for "Stabilized Reflation" than they are in the 300-page 1937 book, so we start with that initial proposal.

The Federal Reserve System, so Graham observes, is already prepared to issue Federal Reserve Notes against various kinds of eligible business credit, including bills secured by "readily marketable staples." Graham's initial plan is simply to skip the credit intermediation and to issue a new class of Federal Notes (distinct from the old Federal Reserve Notes) directly against the deposit of a basket of marketable commodities. (More 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.) By standing ready to absorb surplus commodities whenever the basket price dips more than 3% below a standard price, the plan will prevent the price of commodities from falling. Graham's answer to commodity price volatility is thus in effect for the state 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.³ Depressions may not thereby be completely prevented since commodity price volatility is not their only (or even main) cause, but the additional instability that comes from commodity price volatility will be eliminated.

Graham offered his plan in the hopes of bringing about a rapid recovery and then stabilization of commodity prices—"Stabilized Reflation"--with the idea that such stabilization would provide the basis for a broader economic recovery (not to mention 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.

A close reading of the 1933 plan makes clear that at that time Graham's attention is more or less entirely on the problem of stabilizing commodity prices, and he sees the Federal Reserve System mainly as a handy tool for that purpose. He is definitely not thinking of any additional effects that might arise from monetary expansion. His proposed Federal Notes are a new kind of currency, but he seems to imagine that they

³ Graham says 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).

will replace an equal amount of the older Federal Reserve Notes. Indeed, he presents his plan explicitly as an alternative to “unqualified currency inflation.”

The broader macroeconomic effects that Graham anticipates from the 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, 190-1, my emphasis).

Anticipating that such a recovery will be rapid, Graham looks beyond it to anticipate also the reemergence of a secular problem of “overproduction”. This will show up as a tendency for commodity prices to sag, which under his plan will automatically induce additional government purchases using additional Federal Notes. Supposing this happens, Graham suggests that the solution to secular overproduction is to redistribute the money to the needy who will spend it for consumption, so bringing the commodity surpluses out of storage and using them to increase the standard of living.

Ingenious as this 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 he argued has its source in maldistribution of income between the rich who save and the workers who consume. According to Hobson,

what the economy needs to achieve full employment is a greater amount of consumption relative to income, and that can be achieved by redistribution of income to the working class. By comparison 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 Hobson with a twist.

Had the economy recovered as expected after 1933, probably Graham would never have written his 1937 book. Indeed, even his 1933 publication shows little sign of any progress in his thinking beyond where it likely was in 1922. The data on commodity prices have been brought up to date, but nothing else. Since 1922, he had been focusing first on his business and then on his 1934 Security Analysis 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 hopes that, after trying everything else, the administration might be induced to try his plan.

Like in the original plan, Graham leads off with concern about commodity price volatility, a concern now heightened by righteous anger at the Roosevelt administration's attempts to raise agricultural prices by limiting agricultural production, some measures going so far as to destroy accumulated inventories. He puts forward his storage proposal as an alternative to such illogical destruction:

The idea of storage...is diametrically opposed to the topsy-turvy Alice-in-Wonderland reasoning that has marked so much of our depression thinking and policy. It rejects the argument that prosperity may be promoted by scarcity; that purchasing power may be showered in a gentle rain of greenbacks from heaven; that collapse due to excessive debt may

be remedied by incurring new and larger debts; that our foreign trade may be strengthened by deliberately weakening our currency (p. vii).

As this passage shows, however, he fully recognizes the monetary dimension of the problem, and the book can be understood as an attempt to expand his original commodity price stabilization scheme to address the monetary problem as well.⁴ In 1933, Graham presented his plan as an alternative/addition to the Federal Reserve Note. In 1937, it is rather an alternative/addition to the gold standard. “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, 146-7). The original 40-60 plan survives only as a “possible variant” (p. 149).⁵

Storage, Stability, and the Banking Principle

In monetary affairs, a lot happened in the United States during the first years of Roosevelt’s administration (Mehrling 1997, 104-6). Einzig (1936) describes it 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:

⁴ 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.

⁵ In the 1937 version, the original 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 (p. 100-104).

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)

But it is not just the excesses of the 1930s New Deal that he rejects. Indeed he sees these excesses as the offspring of wrong-headed ideas that first gained circulation in the 1920s, well before the Depression, wrong-headed ideas that right-thinking men (like himself) had resisted more or less successfully until the victory of Roosevelt. The monetary excesses of the New Deal were nothing more than extreme versions of the various proposals of the price stabilization movement of the 1920s, 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, 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 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.⁶ The Fed should be allowed to concentrate on what it conceivably can do, which is to control credit, and let the goal of price stabilization be achieved by more appropriate measures, such as the Graham Plan.⁷ Instead of indirect control of a general price level by using the money and credit mechanism, 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.

The important point here is that, in rejecting the money management schemes of the academic economists, Graham is embracing the banking principle origins of the Federal Reserve System. It follows that the monetary chapters of his 1937 book are 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 banking principles, 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).

⁶ Experience 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, and 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 (p. 267-8).

⁷ Since 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).

In this way, the currency was designed to be both convertible and self-liquidating, the two essential features of good money according to banking principles.⁸

Given suspension of gold convertibility in 1933, and elimination of the self-liquidating paper backing in favor of a completely specious gold certificate security, 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, 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 it scarce, which good faith is a rather weak reed on which to depend.⁹

Return to gold convertibility is not the answer either, 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 (n.5, p. 257). The fact remains that convertibility into gold no longer provides the kind of connection to real value that is required for a good currency.¹⁰ So what is to be done?

⁸ The currency was also designed to be elastic, and contemporary observers put much emphasis on that. Just so, Allyn Young (1924, 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 never was sufficient. Simmons (1936) tracks the development of provisions for note issue.

⁹ Graham 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.

¹⁰ As one indication, the kind of convertibility that even supporters of the gold standard envisage for the future is 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.

The answer is to replace current Federal Reserve Notes—which are purportedly “secured” by gold certificates but not convertible into them, which certificates are themselves purportedly “secured” by gold deposits but not convertible into gold—with Graham’s 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 anyway.

Given the banking principle foundations of Graham’s thinking about money, this is a crucial argument for him, as he recognizes by placing it in the very first chapter of the book. There he advances the startling argument not only that inventories of unsold goods should be viewed as liquid assets, but even more that they are the only true liquid asset. The importance of this passage 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.

(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.” (p. 10-11, my emphasis)

Inventories of goods are the only element on the list that do not cancel on the national balance sheet but unfortunately, Graham continues, the same irrational mass psychology that has falsely attributed liquidity to the first four items has also falsely removed that attribution from the latter, as 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 to 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 can be understood as an extension of the classic real bills argument 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. The bills were supposed to represent goods in transit toward final sale, and the orderly realization of that final sale was supposed to provide the cash needed to redeem the bill. What Graham has in mind is apparently a generalization, one might even say a socialization, of that basic banking principle. Advocates of the real bills doctrine proposed backing currency with goods that were demonstrably on their way toward sale, the key demonstration of 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 being their essential character for our life.

[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)

This clearly represents a substantial expansion of the real bills doctrine. It also represents a complete reversal of the actual doctrine, narrowly conceived. 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,¹¹ 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" (p. 149-50). For the strict real bills advocate, the difference is not technical but fundamental. It is the difference between a security that is self-liquidating and one that is

¹¹ "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, n. 7, p. 258).

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. This 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 a lot 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.)

Thus it happened that, in expanding his plan to book length, Benjamin Graham managed to combine his original Hobsonian critique of the fundamental flaws of financial capitalism with a plan for reform that could be defended according to the most orthodox and conservative banking principles. Let it be said that such a defense was no mere pose. All indications are that Graham believed the orthodox and conservative banking principles to which he appealed. He 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).

Graham appealed to orthodox banking principles, but actually (as we have seen) completely reversed their supposed logical implications. So far as I can see, this line of argument is completely original to him, but there is clear indication that it was sparked by his reading of Berle and Pederson's 1936 Liquid Claims and National Wealth, which Graham cites just before the long passage just quoted (n. 17, p. 238).¹² Berle and Pederson emphasize the change in conception of liquidity from the classical view of goods moving toward consumption, to the modern view of shiftability on markets. 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)

¹² The book was a spin-off from the earlier (and more famous) book The Modern Corporation and Private Property (1932). Probably it is 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).

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 1936, or perhaps even earlier in draft or verbal form since Berle was a professor at the Columbia Law School. (Berle indicates in the book's preface that he began research for the book in the fall of 1932). 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. The eventual consequence was the addition of four monetary chapters (Chs. 10-13) that add a completely new dimension to the Plan, and it was exactly those chapters that turned out to be crucial for the reception of the book.

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 a crucial factor in the next stage of Benjamin Graham's intellectual development, which involved extension of the commodity reserve idea into the international arena.

Commodities, Currency, and the Money Standard

Unlike Ben Graham, 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, 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—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.¹³

Frank Graham’s embrace of fiat currency must of course have been anathema to Benjamin Graham the bond man, who feared inflation more than anything else. And the bond man’s Hobsonian extension of the banking principle must have been equally anathema to the academic’s full-throated rejection of fractional reserve banking.

¹³ 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.

Nevertheless they 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 appropriate 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 tremendous expansion of fiduciary money, the monetary demand for gold had grown more rapidly than the supply, and the consequence was an artificially inflated price of gold, and so the effective elimination of two way convertibility. New gold could enter the banking system in exchange for money, but once inside it never left and simply circulated between national central banks. The problem with this de facto one way convertibility is that it offers 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), and instability of the international monetary system is the consequence.

One answer to the problem is 100% reserve money (1940a, p. 25) in a world of flexible exchange rates. This shifts the entire fiduciary element onto the balance sheet of the state where it can be controlled. Another and better answer is commodity reserve currency (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 disgorge the stored commodities (1941, 1942).

The situation that Frank Graham envisions can be depicted as follows:

Government		Central Bank		Commercial Bank	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Notes (govt)	Govt Debt	Govt Debt Commodities	Notes (bank) Notes (public) Notes (govt) Deposits	Notes (bank) Deposits	Deposits (public)

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.

The support of Frank Graham was apparently tremendously heartening to Benjamin Graham, since he had found it very difficult to attract attention, positive or negative, from the economists. 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, 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 book is there any fiduciary issue in 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 monetary management.

The influence of Frank Graham can be detected first in Benjamin Graham’s 1940 article offering “A Program for Gold”. In that article, Ben calls for revaluation of gold to the 1933 level of \$20.67 per ounce for international exchange, while retaining \$35 as the domestic price (similar to the two prices of silver). Both of these proposals follow closely F. Graham and Whittlesey (1939, Ch. IX) though B. Graham does not cite the work.¹⁴ 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.

F. Graham’s support was crucial, but the stimulus that urged upon B. Graham the task of reformulating his plan for the international economy came apparently from the fact that similar ideas were being floated by others as proposals for postwar reconstruction. 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

¹⁴ But see B. Graham (1944, p. 94, 134).

problem of buffer stock and ever-normal granaries could be effectively attacked (quoted in Graham 1944, p. 86).

Soon thereafter, in the June-September issue of the Economic Journal (which was edited by Keynes), London School of Economics professor Friedrich Hayek (1943) published an article referring to Graham's 1937 book and endorsing an international version of the commodity reserve plan, an article that prompted a response by Keynes. The times seemed to be right for inserting the plan more forcefully into the policy debate. Both Ben and Frank exchanged letters with Keynes. Frank's letter eventually resulted in a further contribution to the Hayek/Keynes debate (F. Graham 1944),¹⁵ which prompted a further reply by Keynes (1944). Benjamin Graham's response was his book World Commodities and World Currencies (1944).

Apparently Graham tried to get his proposal on the agenda at Bretton Woods, but without success, and so he determined to address his book instead to the general public.¹⁶ In an effort to ensure that whatever agreement was achieved at Bretton Woods would not finish 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 (meaning Harry Dexter White) 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 the so-called

¹⁵ See 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 (p. 15-18). What he has in mind is apparently an analogue to the unmanaged gold standard of the 19th century.

¹⁶ Graham (1944a) is a memorandum dated June 21 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).

Experts Plan.¹⁷ When the result of the meeting proved to be more or less in line with the Experts Plan (as might have been predicted) Graham added a note in the Preface to that effect (p. ix) and the book was done.

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 commodity reserve system with the gold standard. (The problem is the same one faced by any system of dual standards, such as gold-silver bimetallism.)¹⁸ But at the international level you can imagine running the whole system without any gold at all, and that is exactly what Graham did. Concretely, Graham imagines an International Commodity Corporation buying and selling the composite commodity units, using funds borrowed from the International Monetary Fund, while the IMF funds these loans 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 (IMF)	Loans (ICC)	Deposits	Deposits (IMF)	

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 domestic version of the plan,

¹⁷ Chapter 8 appears to have been written immediately after the release of the Expert 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.

¹⁸ B. Graham (1937) includes Chapter 17 “International Aspects of the Plan” which does not really engage the problem adequately. He imagines the U.S. accepting commodity inflows and paying for them with its enormous gold hoard. F. Graham is more successful, as might be expected given his background, mainly because he is willing to embrace a flexible exchange rate.

the new money flowed first to the farmers, whereas under the international plan it flows 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 (involving perhaps the new Social Security system); under the international plan, there will be room for similar programs (p. 49). So far so simple.

Graham's big problem in the book was to show how his plan could be integrated with the results of the Bretton Woods Conference, since those results seemed to be a done deal.¹⁹ Both the British and the Americans were looking for a way to stabilize exchange rates, and so unite the international monetary system. Keynes favored a kind of pure credit system, which would have deficit nations building overdrafts at the Clearing Union balanced by the swelling deposits of surplus nations. White, by contrast, favored a kind of 100% reserves system, but with some provision for extending loans to deficit nations (without expanding IMF deposits).²⁰ In the Experts Plan, White's version prevailed.²¹ 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:

¹⁹ And also with emerging plans for stabilizing the prices of individual commodities.

²⁰ It is 100% reserves in the sense that all assets are either gold or sovereign debts, but not in the sense that the IMF is an international organization but its assets are only national sovereign debts.

²¹ 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 Banking department still served as a form of money. But in another sense it was much softer because the lending provisions 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).

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

From this starting point, 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. The resulting arrangement was to be as follows:

Deficit Country		IMF		Surplus Country	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
+Dollars	+Pounds	Gold Currencies -Dollars Loans +Pounds	Deposits	Deposits (IMF)	

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). At least the Expert Plan put much stronger constraints on lending than the Keynes plan would have done. Even better though would be if the IMF stuck to conservative banking principles and insisted on lending only on good collateral, to wit on units of the composite commodity.

The other piece of the Expert Plan that bothered him was the revival of the importance of gold. But he could live with that as well, because he understood it as essentially as 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 are to do that, he urged, at least reduce the social cost of the measure 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.)²²

He could live with all this but not with the fact that the new monetary system would have an even more tenuous connection with the world of goods than had the prewar system. Now, instead of currencies being convertible into gold at a price artificially inflated over its true value, currencies would be convertible into the dollar, and only the dollar would be convertible into gold, albeit at a price artificially inflated over its true value. This was a definite step in the wrong direction, but a step with the virtue that it left room for insertion of the commodity reserve currency. Since there was nothing tying down the value of the international monetary unit under the Bretton Woods system, there was plenty of room to add a commodity reserve element without introducing any irresolvable conflicts with other aspects of the plan. Adding the international version of the commodity reserve currency to the Experts Plan gives something like this:

ICC		IMF		Central Banks	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Commodities	Loans (IMF)	Gold Currencies Loans (ICC)	Deposits	Deposits (IMF)	

Central bank deposits in the IMF would unfortunately be fixed in value against both gold and the composite commodity unit, so formally the system would be a variant of bimetallism, but Graham thought that wouldn't matter so much since gold was artificially

²² The origin of this idea is apparently Graham (1940).

overvalued and hard to produce. The real connection to goods would come from the composite commodity.

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. To cover the case of a country that might be running a deficit but lacking inventories of any of the commodities in the bundle, he 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). Thus the British deficit case would look like this:

Deficit Country		SGC		IMF	
Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
+Dollars		+Staple goods	+Loan	Gold	Deposits
-Staple goods				Currencies -dollars	
				Loans (ICC)	
				+loan (SGC)	

The end result is that Britain gets the dollars it needs, but under the Graham Plan the IMF gets a loan collateralized by staple goods rather than just a general obligation of the British central bank or Treasury.

The SGC extension of the Graham Plan shows clearly that Graham was continuing to think about the problem in terms of his generalized banking principle. Fabricated goods are just as much in transit toward final use as are raw commodities, so why not lend against them? The goal is to facilitate growth by easing the constraints facing deficit countries, just like the Keynes Plan. But the Graham Plan eases those constraints in a way that is in accord with sound banking principles (as Graham

understood them) rather than as a matter of right. And it involves an expansion of credit, not of money. Only deposits of the composite commodity produce an expansion of money.

Conclusion

Graham had great hopes for the plan, which he felt had never received a proper hearing from the economists. To ensure that it got that hearing, in 1945 Graham 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 for that narrower proposal). Soon thereafter, the Institute brought in as their monetary expert the young Edward Shaw, a professor of monetary economics at Stanford, who produced what can best be described as a hatchet job. The Graham Plan might have its merits as a program for commodity price stabilization, but only if the monetary dimension of the Plan is completely scrapped. The right way to finance buffer stocks is with long term debt.²³

Coming on the heels of Viner's (1943, p. 106) dismissal of the commodity dimension of the original Keynes Plan, and Keynes's own assessment (in his response to Frank Graham) that the time was not right (Keynes 1944), this rejection cannot have been unexpected, but it stung nonetheless (Graham 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'" (p. 34, my emphasis). In 1947, in an article for the American

²³ For more on Shaw, see Mehrling (1997, Ch. 9-11).

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, 307). In support of the plea he cites only his own 1944 book and Hayek (1943).

It’s a long strange trip from Henry George to Friedrich von Hayek, but the link is clear. Both men were fundamentally concerned about the problem of the world of money getting disconnected from the world of goods. For Henry George, the problem came from the speculations of the private sector while for Hayek it came more from the fiscal ambitions of the state sector. For Graham himself, the disconnect between the world of money and the world of goods was fundamentally a source of macroeconomic investment risk that could upset any amount of careful security selection by the conservative value investor. Graham wanted a money that would remove uncertainty about the value of money from the investment decision by aligning the price of money with its intrinsic value.

Something there is that does not love a bridge between the world of goods and the world of money (my 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. But too much elasticity brings its own problems—inflation and financial crisis--and discipline is also essential. Someone must always be mending the bridge, even knowing that repairs are only ever temporary. Graham’s value investors are such menders, and so are advocates of commodity reserve money. Graham’s Storage and

Stability does indeed belong on the shelf with George's Progress and Poverty on one side, and perhaps also with Hayek's Prices and Production on the other side.

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