

interesting to note that the gold-silver ratio is coming back to that calculated by Newton since the price of silver was set free a couple of years ago.

But it is not the details of Newton's monetary interests that concern us at present (though I think the subtleties of his economics have been under-rated). It is more the monetary analogies to the changes in the views of the universe at the time he was writing about the latter. We have been witnessing over the past few years a change in our conception of the world monetary system that rivals, on a minor scale, the shift from geocentric to heliocentric notions of the cosmology.

Prior to the Napoleonic Wars, the world monetary system was definitely aurocentric. Hume's eighteenth century description of the price-specie flow mechanism was accurate enough, as a first approximation, both because gold was the major financial asset and because England was only one country among many in international commerce. A view of the system with each nation fixing its currency to gold and gold circulating between countries to find its natural resting place, equilibrating the balance of payments in the process through relative price or expenditure changes, was then apropos.

The pace of monetary evolution, however, has been rapid since the eighteenth century. The evolution of credit and banking made gold increasingly costly for internal payments; credit money drives out gold because it is a cheaper and better instrument of payment. Gresham's law works because credit money is not only cheaper than gold, but can perform even better many of its monetary functions. Gold continued to circulate internationally in the nineteenth century, but even that use was gradually reduced as institutions and private businesses developed to profit from the reduction in the cost of shipping gold back and forth between countries. Information systems improved and were trustworthy as long as there was a reasonable amount of peace between nations. The Pax Britannica of the nineteenth century provided the background in which Britain, as the first nation to industrialize and the most successful imperial power, could become the center of a vast and complicated financial apparatus going far beyond a mere gold standard. The *form* of the gold standard was preserved, but the substance of its operation was based on sterling financial contracts. The monetary system moved from a gold-centered system to a sterling-centered system.¹

I will not go into the details of the operation of that system, nor any discussion of the abortive attempts to restore it in the 1920's. Suffice it to say that the system failed in the inter-war period because the financial environment had altered. The gold standard of the inter-war period was more of a gold standard than the system prevailing in the pre-war period! British financial power had weakened and, for all practical purposes, the center of finance was shifting to the United States. So powerful, however, is the hold that a traditional money, used as a unit of contract, has in financial matters that the prestige and the power of the pound sterling outlived the British Empire even when there were other claimants to power on the horizon. The inter-war period was a transitional period in which the financial size and strength of the United States was beginning to assume a commanding lead. A few could see emerging a new financial dispensation, including Montagu Norman, but it was not reflected in a shift of intellectual leadership. It was as if we were shifting from an Earth-centered cosmology to a Jupiter-centered one, with a reluctant Earth being unwilling to cut the strings, and with Jupiter taking scant notice of the whole issue. It is more obvious to us now, in retrospect, but events are harder to disentangle when we are caught up in them.

It is probably fair to say that not many—if indeed any—economists recognized how the IMF Articles of Agreement, signed in July 1944, accepted the fact of a dollar-centered system and how subsequent developments were made amenable to it. Probably most experts would have said that the system restored a version of the gold standard, while recognizing the importance of the great financial size of the United States (and, possibly Britain) implicit in the voting provisions of the IMF. Gold remained the unit of account in the system as the unit of contract. But gold was not a circulating medium and, if gold did not circulate freely among members, how were exchange rates to be maintained?

You are aware, I am sure, that under the gold standard each nation would keep its currency convertible into gold at a fixed price so that, except for costs

¹ Lay readers are often confused by the designation of the English currency as the pound "sterling." Since the recoinage of 1696-99, Britain has been "on" the gold standard; and, because Newton's recommendation for a higher official silver price was not taken, the pound sterling now has nothing to do with silver, except for its use in coins.