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DAVID HUME ON MONETARY POLICY: A RETROSPECTIVE APPROACH[1]

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ABSTRACT

Monetary policy is a modern idea of which David Hume is generally considered a precursor. Moreover, thanks to Milton Friedman and Robert Lucas, he is often presented as one of the first and most illustrious endorser of monetarism. This paper argues against this view, and in agreement with Joseph Schumpeter, that Hume's contribution to economics, while not insignificant, cannot claim any real novelties. It offers an interpretation of Hume as a descendant of a pre-modern understanding of money rather than a forerunner of modern monetary ideas, and as a scholar exposing common ideas of his time rather than a prophet of economic theories developed centuries later, and argues that there is little in Hume that resembles today's monetary policy prescriptions.

Key Terms: Hume; economics; monetary policy

INTRODUCTION

Monetary policies are attempts to control the money supply in order to gain control over the economy. Monetary policies are modern ideas. Yet, precursors of monetary policies are found when old texts are reinterpreted in light of new tools. David Hume is generally considered one of these precursors of monetary policies. Today, especially thanks to his recruitment by Nobel Laureates such as Milton Friedman (1976) and Robert Lucas (1995), Hume is often presented as one of the first and most illustrious endorser of monetarism, as well as of the theory of money neutrality, at least in the long run.[2] With this paper, instead, I propose to take Joseph Schumpeter seriously when he declares, even if only in a

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footnote, that 'Its position [of Hume's "Of Money"] in the history of economics, while not undeserved, is due to the force and felicity with which it formulated the results of previous work rather than to any novelties' and to provide an analysis that may justify this claim (Schumpeter 1957: 291, note 7). I therefore offer an interpretation of Hume as a descendant of a pre-modern understanding of money rather than a forerunner of modern monetary ideas, as a scholar exposing common ideas of his time rather than a prophet of economic theories developed centuries later. By emphasizing, rather than ignoring, the differences between what was considered money in Hume's time and what is considered money in our times, what is commonly interpreted as monetary policy or monetary prescription in Hume may dissolve into nonsense. If my interpretation is sound, in Hume there is little that resembles today's monetary policy prescriptions – at best, we can find what today would sound like an absurd deflationary prescription achieved through hoarding.

To interpret Hume's view of money from the context in which he wrote, rather than from ours, one needs to be aware of the difference in institutional and general knowledge between then and now. Today we use fiat money, monopolistically produced by a central bank. It is presumed that the central bank can control the money supply either by open-market operations, changes in the reserve requirements, or changes in interest rates. A well-developed banking system and credit markets fundamentally affect monetary policies. In Hume's time, neither fiat money nor central banks existed. There was paper money, which Hume disdains as 'counterfeit money'. The equivalent of rudimental open market operations were performed by so-called money-jobbers, which Hume condemns. Changes in reserve requirements and in interest rates would not be feasible options in Hume's model, since Hume would abolish fractional reserve banks in favor of a 100% reserve bank, a kind of bank that is inconceivable today. If it was up to Hume, credit markets and the banking system would not exist. And if today a very moderate inflation may be considered an effective stimulus for the economy, Hume sees increasing prices as detrimental, favoring lower prices instead.

The rest of the paper is devoted to explicating the differences between Hume's and today's monetary understanding, and to drawing inferences from the differences in monetary prescriptions that one can derive from reading Hume as a pioneer of today or as a taillight of a long tradition now dead. For every aspect of Hume's monetary thinking that is relevant for the argument presented here, I will also introduce how Hume fits among his contemporaries, to emphasize how Hume is more a son of his age than the father of ours.

I

Let us start by analyzing some of the differences in how we understand money today compared to the past. We think of money as fiat money, unconvertible and unbacked paper money that is imposed as legal tender. Hume, instead, defines money as 'only the instrument which men have agreed upon to facilitate the exchange of one commodity for another' (Hume [1752] 1985: 281). So let us focus on the 'agreed upon' character of money in Hume.

Hume adopts the traditional idea, substituted today by the practice of legal tender, but still shared by many of his contemporaries such as, for example, Isaac Gervaise ([1720] 1954), Ferdinando Galiani ([1751] 1977), Charles de Secondat baron de Montesquieu ([1748] 1989), that money is money because it is conventionally accepted as such. As a matter of fact, the word money derives from the Greek *nomisma*, which shares its root with *nomos*, human conventions.[3] It is Aristotle, indeed, in book V of *Nicomachean Ethics*, who claims that money is introduced as a human convention:

> There must, therefore, be [. . .] one standard by which all commodities are measured. This standard is in fact demand, which holds everything together (for if people had no needs, or needs on a different scale, there could be no exchange, or else it must be on different lines); but by a convention demand has come to be represented by money. This is why money is so called, because it exists not by nature, but by custom, and it is in our power to change its value or render it useless. (*NE*: 184)

For Hume, men begin to trade to try to fulfill their desires. But the more they trade, the stronger is the need to overcome the problems of the double coincidence of wants that is present with barter. Money emerges, therefore, as 'the instrument which men have agreed upon to facilitate the exchange of one commodity for another' (Hume [1752] 1985: 290). The forms, shapes, and denominations that money may take do not seem to matter, as long as they are 'agreed upon'. Now, in Hume's time there are two major forms of money: precious metals and paper-money. For Hume, gold and silver are 'agreed upon to facilitate the exchange of one commodity for another' not only domestically, but also for 'negotiations with foreign states' and for acquisitions of 'mercenary troops [from] poorer neighbours' (Hume [1752] 1985: 282). For Hume, gold and silver, therefore, have the full status of money, as they are basically *universally* 'agreed upon'. The status of paper-money, however, is more problematic. Hume declares that paper-money is voluntarily accepted only for some, not all, domestic transactions. He claims that paper-money would not be accepted for international transactions, being 'there *absolutely insignificant*' (Hume [1752] 1985: 317, emphasis added). Differently from several of his contemporaries, including but not limited to, Bishop George Berkley ([1735] 1979) and later Sir James Steuart ([1767] 1966), for Hume paper-money is 'a *counterfeit* money, which foreigners will not accept in any payment' (Hume [1752] 1985: 284, emphasis added). In his essays, Hume usually maintains this distinction between gold and silver money and paper-money by using the word 'money' by itself to refer to the metallic means of exchange, and by indicating the chartaceous means of exchange explicitly as such (‘paper-money’ and ‘paper-credit’ being the two most common words to refer to non-metallic-money).[4] Even if relevant for Hume, today this distinction becomes irrelevant. Our money is all fiat and it no longer needs to be ‘agreed upon’: today we are legally forced to accept our government issued banknotes, whether we agree to it or not.

Another difference between Hume and us is that Hume follows the tenets commonly accepted in the mid-18th century according to which money is *a sign* of all the commodities in the world.[5] Montesquieu expresses this semiotic understanding of money as follows:

> Money is a sign representing the value of all commodities. Some metal is chosen, so that the sign will be durable, will be little worn by use, and can be divided many times without being destroyed . . . . As silver is the sign of the values of commodities, paper is a sign of the value of silver, and when the paper is good, it represents silver so well that there is no difference in that effect. Just as silver is the sign of a thing and it represents it, each thing is a sign of silver and represents it . . . [O]n the one hand, the silver indeed represents all things, and on the other, all things indeed represent silver, and they are sign of one another; that is their relative value is such that one can have the first as soon as one has the other. (Montesquieu [1748] 1989: 399)

To understand this interpretation, we have to reach back in the past, to where the idea was first developed. We can exemplify this thought again with Aristotle, in particular with his *Nicomachean Ethics*.[6] In book V of *Nicomachean Ethics*, Aristotle derives his economic theory from his theory of justice. The differences between his thought and our own are significant. Today, we understand exchange as the result of inequality of subjective values. But Aristotle did not. He understood exchange as possible only with *equality* of objective values. For Aristotle, a transaction will take place only if perceived as just. And since justice is achieved with ‘proportional equality’, if what is exchanged is not equal, the transaction will not take place (*NE*: 183).

Given the differences in goods, the consequent difficulties in comparing and equating things of different values, and the requirement of equality to exchange, a ‘measure of everything’ is needed (*NE*: 184). A physical commodity – traditionally, but not exclusively and not necessarily, precious metals – is conventionally introduced as money to compare the most diverse goods and to be exchanged for any good. Since the form of money available in the 18th century and earlier is basically only currency – the physical quantity of gold and silver coins – the absolute quantity of gold and silver itself is not a measure of the quantity of money in a country, as not all of it is money. The quantity of money in a country is only the part of gold and silver that is coined and used as money. And this quantity can easily vary by melting gold commodities into coins and vice-versa.[7] Indeed when there is a commodity-money, the currency is linked to the market for the commodity used as money. Fiat money, not having any alternative uses, lacks this relation. When gold and silver coins are melted into, say, jewelry, vases, or silverware, the money supply is reduced. Similarly, melting gold and silver from their commodity uses into coins generates an increase in the quantity of money. With the 17th and 18th century there is a clear analytical distinction between the absolute quantity of gold and silver present in a country and the quantity of gold and silver in circulation as money. For Hume the relevant quantity of money is the circulating and not the absolute one.

This idea that 'money is a measure of everything' is possible because the marginal revolution, with which we have become so familiar, had not yet taken place. It implies that each good calls for a portion of the circulating money equal to its value. Money is accepted as payment in place of other goods because it can be immediately transformed into goods of the same value. Hence, money becomes equivalent to all the goods, representing all the commodities exchanged and exchangeable. And just as a representation stands in place of the substance it represents, money, standing in place of the goods it represents, becomes the symbol, the sign, of all the commodities in the world.[8] The idea that a sign simply represents its substance implies that a sign has no autonomous life of its own, that a sign cannot change what it represents. So money, representing a good, has no autonomous life of its own and cannot make things 'grow'. Money must be stable and barren.[9] As Gervasie explains: 'Whatever else bears a Denomination of Value, is only a Shadow without Substance, which must either be wrought for, or vanish to its primitive Nothing, the greatest Power on Earth not being able to create any thing out of nothing' (Gervaise ([1720] 1954: 10). This means that, while money can change, changes in money cannot have real effects: increasing the money supply cannot have stimulating effects on the economy. Quite differently from today, therefore, any possible economic growth due to inflationary stimuli is ruled out.

Today, like back then, money can change either because its quantity may change, or because its name may change. But the communalities across eras end here. In the 18th century, it was still understood that money maintains the same semiotic proportion between the value of goods and money. If the quantity of money doubles and the quantity of goods stays constant, each good must be represented by double the amount of money, and change in the quantity of money will result only in a proportional change in prices. Similarly, changing what a quantity of money is called does not change the fact that the quantity of money is equal to the same quantity of goods as before.[10] Ferdinando Galiani explains how, if the unit of measurement changes, the measured thing remains unchanged by noticing that if the number of inches in a *palmo* is declared no longer twelve but nine, 'in just one night, all of his [a king's] soldiers who have already retired for the night, some of five, some of six *palmi* in height, would awaken the next morning to find themselves miraculously extended to eight, some even to nine *palmi*' – a ridiculous idea (Galiani [1751] 1977: 168). Today, in contrast to what is found in Hume's economic essays, a reference to money as a representation, a proportion and a sign, and a reference to prices as a reflection of the proportion of value of money and commodities, is not to be found.

This implies that, for Hume, prices are not equal to the value of the marginal unit as we understand them today. Instead, prices are 'always proportioned to the plenty of money' – they are the proportion of the amount of goods in circulation to the amount of money in circulation (Hume [1752] 1985: 281). Prices 'sink' – decrease – when the number of goods in circulation increases more (or at a faster rate) than the quantity of money in circulation, or when the money in circulation decreases. On the other hand, prices rise if the amount of goods in circulation decreases, given a certain level of money, or if the amount of money in circulation increases more than the quantity of goods. Furthermore, given that prices are understood as the ratio of goods to money, the relevant quantities of gold and of goods are only the ones that 'meet' (Hume [1752] 1985: 291). More specifically, for Hume, and in the 18th century in general, there is agreement that currency is only the *circulating* quantity of coins, just like the relevant goods are only the circulating goods, because if gold coins are locked into coffers or in treasury rooms, they will not 'meet the goods', and will not have any affect on prices (Hume [1752] 1985: 290). Today, on the other hand, M1 includes also the money that is 'locked up in coffers', as it includes demand deposits.

It is to be noted that, for Hume, the amount of goods in circulation depends on the number of people and the level of 'art and industry', i.e. demand; in turn, demand depends on the refinement in society's manners. Therefore, in a 'rude and unrefined' society, holding the quantity of money constant, prices are high because so few commodities are exchanged, as people are happy consuming whatever they can produce themselves (Hume [1752] 1985: 291). On the other hand, 'every thing must become much cheaper in times of industry and refinement, than in rude and uncultivated ages [. . .] the proportion being here lessened on the side of the money' (Hume [1752] 1985: 291–2). This means that prices decrease (increase) if either production increases (decreases) or money decreases (increases), holding all else constant. To lower (raise) prices, therefore, either demand upon which production depends is directly affected by a policy prescription – a position explicitly taken by Sir James Steurat ([1767] 1966) – or money is 'annihilated' ('multiplied') – a position also taken by Jacob Vanderlint ([1734] 1970), Hume ([1752] 1985: 311) and Joseph Harris ([1757] 1966).

Hume's analysis implies that no particular institution, central banks like today or any others, can have control over money. The determinants of the circulating quantity of money are all the economic actors, their trips to a goldsmith, and the particular conditions of the economy. Differently from today, any private citizen could play a role in expanding and contracting the quantity of money either by changing the amount of precious metals hoarded or by changing the amount employed in alternative uses.

Additionally, as mentioned, Hume's analysis implies that the quantity of money is more generally determined by the economic conditions, which in their turn are determined by the aggregate demand. Indeed, where there is no demand there is no production and no exchange, and money is absent. On the other hand, with the development of demand, exchange begins to take place, as historically occurred, first in limited amount and without money. When, because of the increasing demand, exchanges increase in frequency, money emerges to facilitate trade (e.g. Hume [1752] 1985: 264 and 291). The causation goes from trade to money. To Hume, the presence of money indicates the presence of trade and industry.

II

The vigorous 18th century debate over the causation between money and trade – stimulated by the introduction of a new form of money, paper credit – corroborates this interpretation of Hume. The debate centers on how a country could become wealthier. There are two leading economic answers. One, based on traditional concepts, is that it does so by increasing trade and therefore industry. The other, at the time relatively more innovative, is that a country's wealth grows by increasing its money, especially via paper money. The two answers are mutually exclusive. If money is the effect of trade and industry, it cannot be their cause. And, if money is the engine of trade and industry, it is their cause and not their effect. Hume describes money as 'not properly speaking, one of the subjects of commerce' but as just 'the oil which renders the wheels more smooth and easy' (Hume [1752] 1985: 281). Hume's approach contrasts with some of his contemporaries, who, in the words of Jacob Viner

> wanted more money because they regarded money, not merely as a passive medium of exchange, but as a force acting through circulation from hand to hand as an active stimulus to trade. An increased amount of money in circulation, they believed, meant (or caused) an increased volume of trade, and since men would produce only what they could sell, a quickening of trade meant an increase of production and therefore a wealthier country. (Viner 1930: 284)

Hume claims instead that money is not a cause but a *consequence* of trade – money follows commerce. He indeed uses the two parts of the essay 'Of Money' to explain how output, its trade and, as a consequence, money, increase when there is an increase in demand. In the first part, Hume explains how an increase in foreign demand for domestic goods increases domestic industry and, as a consequence, the inflow of money in the domestic economy from abroad. In the second part of the essay, he explains how an increase in domestic demand increases domestic industry and, as a consequence, the quantity of money in circulation also increases, as more money flows out from coffers into circulation. This analysis is a major obstacle for whoever wants to see effective monetary policy prescriptions in Hume.

Many thinkers besides Hume, among them Gervaise ([1720] 1954), Monetesquieu ([1748] 1989), and de Pinto ([1774] 1969), claim that people who promote an increase in money to stimulate the economy are confused. They see an increase in the money supply (more paper credit or more gold) at the same time as an increase in output, and assume that there is a causal relation going from money to output. They are mistaken because the causation goes in reverse, from more output to more money. Hume claims indeed:

> To these difficulties I answer that the effect, here supposed to flow from scarcity of money, really arises from the manners and customs of the people; and that *we mistake, as is too usual, a collateral effect for a cause.* (Hume [1752] 1985: 290, emphasis added)

And again:

> In the following essay ['Of Interest'] we shall see an instance of a like *fallacy* as that above mentioned; where a *collateral effect is taken for a cause*, and where a consequence is ascribed to the plenty of money; though it be really owing to a change in the manners and customs of the people. (Hume [1752] 1985: 294, emphasis added)

So, to Hume, money is not the engine of industry or the cause of trade. But increasing the amount of trade will generate an increase in the quantity of money, making money a symptom of trade, a sign of its presence. In this context, monetary manipulations as we know them today would make little sense.

The policy prescriptions usually associated with modern interpretations of Hume are inflationary. In the historical framework presented here, though, they would make little sense. Money increases with the discovery of the mines of the New World as well as with the introduction of paper money – 'passive increases' as Pietro Verri ([1771] 1993), an Italian admirer of Hume, defines them. Simply increasing the supply of domestic money, without a change in 'the passions of men', will not bring any desirable effect on the domestic economy. Indeed, the increase of money not only does *not* stimulate production and trade but actually inhibits domestic production. Throughout the essays, Hume repeats that increasing the quantity of money in circulation *depresses* the economy, rather than stimulating it: 'the greater plenty of money [... may ...] be a loss to a nation in its commerce with foreigners' (Hume [1752] 1985: 283). Indeed, 'the dearness of every thing, from plenty of money, is a disadvantage, which attends established commerce, and sets bounds to it in every country, by enabling the poorer states to undersell the richer in all foreign markets. [... The] greater plenty of money is rather disadvantageous by raising the price of every kind of labour' (Hume [1752] 1985: 284–6, see also 312, 314, 316–18, 320, 324). Hume therefore claims that with an increase in prices, industry will tend to *decrease,* as demand will be satisfied by foreign production. The extra quantity of money will eventually leave the country, bringing prices back to their 'natural proportion'. But in the meantime, the decrease in domestic production means misery rather than prosperity.

An increased quantity of paper-money would have the same effects (Hume [1752] 1985: 286).[11] Indeed, Hume's disapproval of the most effective inflationary instrument – paper-money – further supports the claim that inflationary policies are not policies to encourage. In Hume's time, paper-money is mostly in the form of paper-credit, bank-credit, and public-credit.[12] Domestically, paper is a close substitute for metals. The demand for money for domestic transactions can be satisfied equally well by either metals or paper. But, unlike gold, paper cannot travel abroad because it is not accepted as a means of international payment. Demand, being like a container, will accept only a certain amount of money. If more money is introduced at home, it will overflow (Hume [1752] 1985: 312).[13] Gold, used to pay foreigners, will leave the country while domestic markets will be covered by the equivalent amount of paper, which cannot leave: '[paper money in circulation] banish[es] gold and silver from the most considerable commerce of the state' (Hume [1752] 1985: 355), *decreasing* the quantity of money in the home country (Hume [1752] 1985: 324). Indeed, Hume claims: 'I scarcely know any method of sinking money below its level, but those institutions of banks, funds, and paper-credit, which are so much practiced in this kingdom' (Hume [1752] 1985: 316). Now, for Hume, an increase in paper money 'can *never* be in the interest of any trading nation; but *must* lay them under *disadvantages*, by encreasing money beyond its natural proportion to labour and commodities, and thereby heightening their price to the merchant and manufacturer' (Hume [1752] 1985: 284, emphasis added, see also 316–8). Gold leaves and 'a nation, whose [gold] money decreases, is actually, at that time, weaker and more miserable than another nation which possess no more money, but is on the encreasing hand' (Hume [1752] 1985: 288, see also 311–2). Inflationary policies as we know them today, even if assumed feasible in Hume's world, increase prices and increase the outflow of precious metals and, since it is '*pernicious* to industry, when gold and silver are diminishing' (Hume [1752] 1985: 288, emphasis added), they discourage the economy, leaving all the 'ill effects arising from a great abundance of money' and none of the benefits (Hume [1752] 1985: 317).

To prevent these inflationary tendencies, rather than to promote them as modern readers would like to do, Hume is willing to go as far as proposing something that is ridiculous to a modern reader: the creation of a public bank with a strict 100% reserve requirement. For Hume, using bank-credit is too open to abuses (Hume [1752] 1985: 318–320). Hume's position against public credit in the essay 'Of Public Credit' is the flagship in battles against public credit and his statement that 'either the nation must destroy public credit, or public credit will destroy the nation' was made a popular motto in the anti-public credit propaganda campaigns of the 18th and early 19th century (Hume [1752] 1985: 360–1).[14] Some of his contemporaries (and ours), on the other hand, are not as critical of this method.[15] But Hume declares that 'to encrease such a credit, can never be the interest of any trading nation' and proposes that 'it must be allowed, that no bank could be more advantageous, than such a one as locked up all the money it receives, and never augmented the circulating coin' (Hume [1752] 1985: 284). Because the bank would not survive, as it could not generate the revenue to pay its 'directors and tellers', Hume's proposal includes the idea that the state 'bore the charges of salaries,' since 'the national advantage, resulting from the low price of labour and the destruction of paper-credit, would be a sufficient compensation' (Hume [1752] 1985: 285).

That said, in his 1752 essay, 'Of Money', Hume does claim that the 'good policy of the magistrate consists only in keeping [money], if possible, still encreasing' (Hume [1752] 1985: 288). But if it makes little sense to interpret the 'still encreasing' money as an inflationary expansion meant to stimulate the economy, as is often done today, how else can we understand it?

III

We have seen that, according to Hume, the level of money is always 'its proportional level to the commodities, labour, industry, and skill, which is in the several states. And I assert, that where these advantages are double, triple, quadruple, to what they are in the neighbouring states, the money infallibly will also be double, triple, quadruple' (Hume [1752] 1985: 315, note 11). If the presence of money is a *consequence* of the presence of trade and industry, then 'a government has great reason to preserve with care its people and its manufactures, maintaining demand and the production that derives from it. Money will follow' (Hume [1752] 1985: 326). In the 18th century these views are not uncommon: Gervasie ([1720] 1954), Montesquieu ([1748] 1989), Galiani ([1751] 1977), Steuart ([1767] 1966), and Adam Smith ([1776] 1982) hold similar, yet not identical, views. Commerce exposes 'uncultivated people' to new comforts, so more goods are brought to the market, and more payments are requested in money. Gold and silver will leave their chests in the form of coins to enter into circulation (Hume [1752] 1985: 292–4). Commerce also allows 'money [to be] *imported* into a nation', because '[a] set of *manufactures or merchants* [...] have received returns of gold and silver for *goods which they sent* to CADIZ' (Hume [1752] 1985: 286, emphasis added).

We also have seen that only commerce can generate incentives to consume more and, therefore, produce more in order to obtain, via exchange, the newly discovered 'pleasures' and 'delicacies'. Commerce is the only hope for effectively stimulating the economy. In general, therefore, restrictions on commerce can never be good policies. Limiting trade in any form is equivalent to limiting demand and, therefore, production and economic prosperity. Hume explains this idea in several of his essays. 'Of Commerce' describes how only commerce allows men to shake off the 'habit of indolence' (Hume [1752] 1985: 261, 264), making them productive and bringing prosperity to themselves and to the state. 'Of the Balance of Trade' is explicitly directed toward the dismantling of export restrictions – restricting exports is 'very usual, in nations ignorant of the nature of commerce [... since] they do not consider, that, in this prohibition, they act directly contrary to their intention; and the more is exported of a commodity, the more will be raised at home' (Hume [1752] 1985: 308). 'Of the Jealousy of Trade' aims at dismantling another 'ill-founded jealousy [...] which seems equally groundless', i.e. the jealousy that leads to import restrictions (Hume [1752] 1985: 327). Indeed, Hume's argument is often seen as a polemic against those positions that promote export restrictions to prevent the alleged loss of 'whatever they think valuable and useful' (Hume [1752] 1985: 308) and import restrictions to prevent an outflow of precious metals (Hume [1752] 1985: 309).[16]

But simply protecting commerce from limitations will not be enough. Hume explains that when commerce increases 'manufacturers and merchants' will 'employ more workmen', so that they can increase production and exports. Similarly, 'the farmer and the gardener, finding, that all their commodities are taken off, apply themselves with alacrity to the raising more' (Hume [1752] 1985: 287). But if the increase in demand encourages the domestic economy, the increased inflow of money, and the corresponding price increase, would eventually eat away at the competitive edge that domestic goods may have. The benefits of low prices are temporary (Hume [1752] 1985: 286–7). It is at this point that Hume claims that 'the good policy of the magistrate consists only in keeping [money] still encreasing' (Hume [1752] 1985: 288). If the good policy of the magistrate was simply to assure that commerce would maintain its course and/or that ships would safely arrive in port, the benefits of exporting with the West Indies would eventually 'encrease the price of labor', ending therefore the inflow of money and the outflow of goods. The good policy of the magistrate seems to be, instead, to prevent this increase.

The specie flow mechanism described in 'Of the Balance of Trade' helps us in understanding Hume's logic, so different from ours.[17] In Hume's model, any attempt to change the quantity of money in a country with an open economy will prove futile as 'the common course of nature [. . .] preserve[s] money nearly proportionable to the art and industry of each nation. All water, wherever it communicates, remains at the same level' (Hume [1752] 1985: 312). Hume explains that 'multiplying' the money supply above its natural level is counterbalanced by a proportional outflow of money as payment for the increased imports.[18] A decrease in the money supply causes an inflow of money instead. Hume states:

> Suppose that four-fifths of all the money in GREAT BRITAIN to be annihilated in one night, and the nation reduced to the same condition, with regard to specie, as in the reign of the HARRYS and EDWARDS, what would be the consequence? Must not the price of all labour and commodities sink in proportion, and *every thing be sold as cheap* as they were in those ages? *What nation could then dispute with us in any foreign market, or pretend to navigate or to sell manufactures at the same price, which to us would afford sufficient profit?* In how little time, therefore, must this *bring back the money* which we had lost and raise us to the level of all the neighbouring nations? Where, after we have arrived, we immediately lose the *advantage of the cheapness of labour and commodities*; and farther *flowing in of money* is stopped by our fullness and repletion. (Hume [1752] 1985: 311, emphasis added)

So, a one-time decrease in money supply will generate a temporary increase in sales, which brings money in to the economy and prices back up to their original level. But if money keeps being annihilated, money will keep coming back in – it will 'keep encreasing'. Indeed, so important is this concept, that 11 out of the 20 pages of that essay are dedicated to explaining how '[t]here is indeed one expedient by which it is possible [. . . to] raise money beyond its natural level in any kingdom' (Hume [1752] 1985: 316).

It is easier to annihilate part of the money supply by assumption than in practice, and the length of the adjustment process may be questionable.[19] Nevertheless, Hume claims that this can be done. He explains at length that in practice there are successful methods to artificially increase money. According to Hume, to increase money above its natural level, money has to be 'annihilated' first. To follow Hume's argument, we need to keep in mind that for Hume the quantity of money that affects prices is only the amount in circulation, but that gold and silver are still money, even if they are hoarded or demonetized, because they can be converted relatively easily back into circulating money.

His argument runs as follows: we are able to 'annihilate' money by, literally, making it disappear, that is, by taking it out of circulation: 'If the coin be locked up in chests, it is the same thing with regard to prices as if it were annihilated' (Hume [1752] 1985: 290). This implies that '*the only method* of amassing [money is] the practice of hoarding' (Hume [1752] 1985: 324, emphasis added), a practice abhorred today. For Hume, hoarding indeed decreases the quantity of money in circulation in a country, lowers prices, favors sales (which encourages commerce and industry), and allows more money to flow in. If money continues to be 'annihilated', its inflow will keep 'encreasing'. To show how effective this method is, Hume offers a list of historical examples of the power of hoarding: Geneva, despite being such a small city, 'engross[ed] nine-tenths of the money of EUROPE' (Hume [1752] 1985: 321); Athens was able 'in about 50 years [... to] amass a sum not much inferior to that of HARRY VII' (Hume [1752] 1985: 321), despite being such a small republic; '[Philip and Perseus] in thirty years collected from the small kingdom of MACEDON, a larger treasure than that of the ENGLISH monarch' (Hume [1752] 1985: 322). Berne and the Ptolemies offer the same lesson (Hume [1752] 1985: 323): hoarding, with its annihilation of money, increases money above its natural level by attracting increasing quantities of money into the country to restore the natural proportion between money (in circulation) and the arts and industry of that country.

Hume is not alone in claiming that hoarding is necessary to keep money 'still encreasing'. Before him, John Houghton ([1681–1683] 1728) claims that hoarding would lead to an increase in imports of bullion from abroad. Vanderlint ([1734] 1970) approves of the practice of the East Indians of burying silver underground to keep prices low and exports, with their resulting inflow of silver, high. After Hume, Lord Kames Henry Home (1774) supports a state treasury because 'it could absorb a redundancy of currency, which otherwise would get into circulation, raise prices, and thus hamper trade' (cited in Viner 1930: 272–3).

Therefore, Hume's claim that 'it is of no manner of consequence, with regard to the domestic happiness of a state, whether money be in a greater or less quantity. The good policy of the magistrate consists only in keeping it, if possible, still encreasing; because by that means, he keeps alive a spirit of industry in the nation, and encreases the stock of labour, in which consists all real power and riches' seems to imply that the good policy of the magistrate is to stimulate demand for domestic goods by 'sinking the prices' with a continuous 'annihilation' of money (Hume [1752] 1985: 288).[20] The promotion of hoarding seems to be the 'the only method' that can be used to 'sink the prices' so that money is kept 'still encreasing'.

The kind of hoarding that Hume seems to promote is done *privately,* and it is achieved through the alternative uses of precious metals. Gold and silver can be used not only as money but also as jewelry, decorations for churches and palaces, and as domestic utensils (silverware was in fact made out of silver).[21] Indeed, Hume praises the policy of France where

> Many have large sums in their coffers: Great quantities of plate are used in private houses and all the churches are full of it. By this means, provisions and labour still remain cheaper among them, than in nations that are not half so rich in gold and silver. The advantages of this situation, in point of trade as well as in great public emergencies, are too evident to be disputed. (Hume [1752] 1985: 317)

Similarly, Hume looks favorably upon policies that discourage using chinaware, a close substitute for silverware. By using utensils made of silver, the quantity of silver-money would decrease, reducing domestic prices, increasing exports, and therefore increasing the inflow of precious metals. The incoming flow of precious metals that would follow may not increase the domestic money supply and domestic prices, because it is taken out of circulation and melted into plate.

> The same fashion a few years ago prevailed in GENOA, which still has place in ENGLAND and HOLLAND, of using services of CHINA-ware instate of plate; but the senate foreseeing the consequence, prohibited the use of that brittle commodity beyond a certain extent; while the use of silver-plate was left unlimited. And I suppose, in their later distress, they felt the good effect of this ordinance. Our tax on plate is, perhaps, in this view, somewhat impolitic. (Hume [1752] 1985: 318)

The focus not just on hoarding, but on private hoarding is to be found in other writers more or less contemporary of Hume. Before him, Willaim Petty claims: 'There may be . . . too much money in a country . . . as to the best advantage of its trade; only the remedy is very easy, it may be soon turned into the magnificence of gold and silver vessels' (Petty [1691] 1963–1964: 193). Similarly Vanderlint recommends not only the use of plate but also of silver and gold cloth and garments: 'I can't pass over this Fact without remarking, that it must be beneficial to Trade, that our Princes, Nobility, and Gentry, should wear the richest Gold and Silver Cloathing, and use such Utensils, and adorn their Palaces and Houses with these shining Metals' (Vanderlint [1734] 1970: 93–94). Only a few years later, Joseph Harris states:

> Let an increased stock of bullion get out again into trade, and it will soon turn the balance the other way [so that 'to prevent its getting into trade as money' it has to be stored up]. But people in general will not heard up cash; all like to display their wealth, and to lay out other superfluity in some costly things. There seems then no method so effectual for the securing of dead stock of treasure in any country, as the encouraging the use of plate, by making it fashionable, preferable to more brittle or more perishable commodities. (Harris [1757] 1966: 99–100)

IV

To a modern reader, the effectiveness of decreasing the supply of money by using silver and gold in household utensils may not be clear, and Hume does not give many indications regarding the magnitude of the changes. We can look at Hume's contemporaries to infer whether using plate could be enough to both decrease the money supply so that prices are 'sunk' and to keep taking out of circulation the inflow of money generated by it. Adam Smith has a somewhat sophisticated description of this process. In particular, Smith states:

> In order to supply so very widely extended a market, the quantity of silver annually brought from the mines must not only be sufficient to support that continual increase both of coin and of plate which is required in all thriving countries; but to repair that continual waste and consumption of silver which takes place in all countries where that metal is used. *The continual consumption of the precious metals in coin by wearing and in plate both by wearing and cleaning, is very sensible; and in commodities of which the use is so very widely extended, would alone have required a very great annual supply*'. (Smith ([1776] 1982: 225, emphasis added)

Increasing the use of plate not only 'annihilates' the quantity of gold and silver in circulation once, but generates a permanent mechanism to prevent the money supply from increasing again, since, given the continuous loss of metals due to 'wearing and cleaning', to maintain the same amount of plate, a 'sensible', that is a noticeable amount of silver and gold has to be used.

Hume explicitly discusses the 'wearing and cleaning' as a way to decrease the money supply, even if without offering any sense of the magnitudes involved in the process, when he suggests avoiding recoinage (Hume [1752] 1985: 287–8, note 7). Refraining from recoining worn out coins, first, avoids some of the problems associated with recoinages, and second, decreases the quantity of gold and silver in circulation in the country, as the metal content in the old coins is reduced, while the number of coins and their denomination stay the same. Not recoining old coins differs from debasing them. Debasement implies maintaining the same quantity of gold and silver in circulation. Each coin now contains less precious metal, while the number of coins has increased and the old denomination is maintained. With worn out coins, on the other hand, the metal content of each coin would be decreased by excessive use, but the number of coins would stay the same and would maintain the same denomination even with less metal content. The prices of the goods in the domestic market would most likely stay the same, since the proportion of what is domestically 'agreed upon' as money (i.e. coins) to goods in circulation would not change. On the other hand, as the quantity of what is 'agreed upon' as money internationally (i.e. gold and silver) has decreased, the prices of domestic goods for foreigners would be a little lower, so 'foreign trade [would be] enlivened' (Hume [1752] 1985: 288). Foreigners would want more domestic goods, increasing domestic industry. An increase in industry would bring more money in, which would eventually wear, maintaining the cycle.

Hume considers an additional benefit of using gold and silver as plate, besides decreasing the quantity of money in circulation: the ready availability of precious metals in case of need. Smith seems to be more skeptical than Hume on this point. While using plate may prove an effective way to decrease the quantity of gold and silver in circulation, melting plate into coins or bullions in cases of financial distress may not be an equally effective method of increasing the money supply. The reasons for this asymmetry are at least two according to Smith. First, the plate that wears out does not exist anymore so it cannot be melted back into coins. Second, if the accumulation of gold and silver in the form of plate and treasury helped in the past, now financial distresses such as wars are too enormous ('the foreign wars of the present century, the most expensive perhaps which history records' Smith ([1776] 1982: 441]) to be sustained by it. Smith claims indeed:

> The French, in the beginning of the last war, did not derive so much advantage from this expedient ['the melting down of plate of private families'] as to compensate the loss of the fashion' (Smith [1776] 1982: 441). Instead, wars are now better financed by debt and 'by that [exportation] of British commodities of some kind or other. (Smith [1776] 1982: 443)

Hume's lack of enthusiasm for the alternative methods available further shows that in his vision the 'annihilation' of money done through individual hoarding is the preferred method of 'sinking prices'. A public treasure may be a more effective hoarding 'expedient', but the encouragement of individual hoarding through the use of plate is the least costly policy tool (Hume [1752] 1985: 320). Decreasing the money supply by 'gathering large sums into a public treasure' is 'destructive', because a huge quantity of precious metals is concentrated in *one* place (Hume [1752] 1985: 320). This creates a perverse set of incentives for either a weak or a strong government. 'A weak state, with an enormous treasure, will soon become a prey to some of its poorer, but more powerful neighbours. A great state would dissipate its wealth in dangerous and ill-concerted projects, and probably destroy, with it, what is much more valuable, the industry, morals, and numbers of its people' (Hume [1752] 1985: 321). Hume, like Houghton ([1681–1683] 1728) before him, is concerned about the 'expenditure on sinful purposes' of large treasuries. On the other hand, allowing individuals to decrease the quantity of money in a decentralized manner implies that not only may a country enjoy the benefits of low prices, but it may also avoid the danger of accumulating riches in one hand.

CONCLUSION

Is there a lesson that we, today, can still learn from this reading of Hume? Maybe. According to Hume, the prosperity of a country depends on the extent of its industry. Industry, in its turn, develops when there is demand (domestic and foreign) for its output. Lower prices for domestic products increase commerce and the inflow of money. Hume's complete, almost blind, reliance on commerce and trade *may* also imply that, today, economic growth could be achieved, not by relying on a strong banking system, but through a strong reliance on commerce and trade. Free trade, and not sophisticated banking, would change consumer tastes, increase demand and output, and therefore stimulate economic growth.

When money and monetary forces are conceived in their pre-modern formulation, Hume's analysis does not fit modern logic any longer, actually sounding ludicrous to a modern ear. In the absence of a central bank commanding specific quantities of fiat money, Hume faces a world with commodity money, the quantity of which is determined by market forces. The only way to affect the economy, then, unlike today, seems to be through affecting trade. Lower prices, rather than mild inflation as we would think today, 'keep alive a spirit of industry in the nation, and encrease the stock of labour, in which consists all real power and riches' (Hume [1752] 1985: 288). Hume's 'monetary policy', if we can even call it this, prescribes therefore taking money out of circulation by using gold and silver as commodities. Churches and palaces will be covered and filled with gold and silver; money will be melted into silver-plates and silverware; in some instances this practice will be encouraged by forbidding the import of china, since porcelain would substitute silver in the making of some household utensils. Money will also be melted into jewelry, locked in treasury rooms, or even buried underground. In other words, deflation through hording and demonetizing precious metals through increasing their alternative uses, rather than inflation, is the preferred way to achieve economic growth. This concept is alien to a modern economist.

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NOTES

[1] An earlier version of this paper was part of the author's dissertation, defended in the fall 2001. It draws also from her 2006 (submitted in 2003) and 2007 (submitted in 2004) works.

[2] For some literature on Hume's monetary thinking see among others: Keynes (1936), Vickers (1959), Duke (1979), Fausten (1979), Mayer (1980), Rashid (1984), Friedman (1987), Perlman (1987), McGee (1989), Viner (1991), Hont (1993), Skinner (1993), Berdell (1995), Blaug (1995), Lucas (1996), Cesarano (1998), Paganelli (2006), and Paganelli (2007).

[3] For how the idea of money as a convention is transmitted in time see Pribram (1983).

[4] For a general discussion on the nature of money, see among others, Caffentzis (2001), Pribram (1983), Shell (1995), and Simmel (1900).

[5] For an analysis of the semiotic character of money see Simmel [1900] (1990).

[6] For a treatment of money from the Aristotelian roots of the Scholastic understanding of it to the 18th century see in particular Pribram (1983), pp 1–135.

[7] The cost of converting gold and silver goods into coins and vice-versa was commonly debated, especially in the 17th century. Hume, though, ignores this problem as well as the more general problem of the constraints due to cost of production in producing new money.

[8] For an analysis of the relation between sign and substance in monetary thinking see among others Shell [1995] (2000).

[9] The stability of any unit of account was considered indeed 'sacred' (for example, Dutot [1738] (1974), p 2). The 'raising of the coins' was generally condemned. A sign which changes will cause virulent confusion in the interpretation of its substance, confusion and instability that damages trade and the economy. If the standard is not fixed, it loses its measurement ability and must be changed. See Law [1705] (1966) and his project of replacing unstable gold with more stable land-money. Cf. Hume [1752] (198), p 228 note 7, where he distinguishes between real and perceived stability. One of the expressions of the idea of sterility of money is the general aversion to interest, experienced from the Babylonian code of Hammurabi of 1800 BC (Blitz and Long 1965; see also Homer 1963) through Christianity (Nelson 1969) to modernity. The prohibition of interest could be justifiable, following the ancient tradition, as an 'illicit modification of a standard of valuation,' and therefore, in Scholastic wording (which relies heavily on the Aristotelian works), as a *logical* sin (Pribram 1983). When the idea of money as a sign disappears, it will be more difficult to offer solid explanations of this general aversion to interest.

[10] For an overview of pre-modern authors who presented similar positions see among others Vickers (1959), Monroe (1966), Pribram (1983).

[11] See also Vandelint: 'I believe our Paper-Effects have contributed as much to this Decay of Trade, as all the rest put together, by inhancing the Price of every Thing amongst us, above the Rates our real Specie would have supported them at, in such Proportion as the Paper-Effects amongst us are greater than the real Specie we have circulating; for this is the natural and unavoidable Effect of any Thing operating as Cash, which is not such' (Vandelint [1734] 1970: 165).

[12] For a detailed account of the different kinds of paper money see Steuart (1767). Hume lumps them together.

[13] Hume discourages the introduction of paper among other reasons because if gold leaves the country, the kingdom will weaken *militarily*, as soldiers are paid only in metal. A detailed explanation of the negative effects of the introduction of paper is in his essay 'Of Public Credit'.

[14] See Hont (1993), Pocock (1975), Pocock (1985), and Paganelli (2003). See also, for example, Gerveise [1720] (1954) and Vanderlint [1734] (1970).

[15] See for example Dutot [1738] (1974), Law [1705] (1966), Melon [1734] (1983), Steuart [1767] (1966), Wallace [1734] (1969), and de Pinto [1774] (1969).

[16] For a detailed account of the mercantilist positions, see Viner (1930).

[17] For traditional and neoclassical models and interpretations of Hume's specie-flow mechanism see in particular Berdell (1995), Cesarano (1998), Duke (1979), Fausten (1979), Samuelson (1980), and Rashid (1984).

[18] Going back to the original position with this mechanism implies that all the changes are proportional. Hume seems to work with this assumption of the price elasticity of demand. If the magnitude of the changes is not proportional, then the starting position may or may not be regained. I thank Nicola Giocoli for pointing out the relevance of this assumption. On the accuracy of the magnitude of the changes, see Schabas (2001). See also Schabas (2004) on the possible reading of these examples as mental experiments and on the use of mental experiments in general in Hume.

[19] For an analysis of the problems of the timing of adjustments in Hume, see Schabas (2004).

[20] For an alternative reading of Hume and other classic economists on deflation see Humphrey (2004).

[21] On the different forms that gold and silver take see also Adam Smith ([1776] 1982: 441). See also David Ricardo and his distinction of the different functions of gold in Schmitt (1985).