

# **A Solution to the Fiat Currency Problem: Uranium and Thorium Coins**

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## **ABSTRACT**

Ludwig von Mises' concept of "barter-fiction," a theoretical market in which transactions occur through direct exchange, could potentially become feasible with the introduction of uranium and thorium-based currency. These currencies, containing energy in the form of nuclear fission, could replace fiat money by being used for a wide range of practical applications, from powering cars and homes to facilitating public services. Uranium and thorium have high energy density and produce low gamma radiation, making them suitable for use as money, with the added benefit of being traceable via gamma spectrometry to prevent contamination, such as from plutonium. In these systems, the coins could act as sources of nuclear fuel, facilitating energy production via subcritical reactors that utilize both fast and slow neutrons. Proper safeguards, including plastic shielding, would be necessary to ensure safety and prevent misuse, such as the addition of harmful materials like crematory plutonium. This nuclear-based monetary system could potentially replace fiat money, which suffers from inflation and instability. The use of uranium and thorium coins would encourage responsible mining and land use, aligning monetary creation with tangible resources. Banks, potentially also mining operators, could issue these currencies responsibly, limiting supply and ensuring value creation through work, unlike fiat money, which is often inflated irresponsibly. This system would discourage the creation of harmful or inefficient materials, such as sodium-mash bombs, which would have limited military applications. In a world where the market values uranium and thorium more than fiat money, the financial landscape would shift toward more sustainable, accountable forms of currency.

## **INTRODUCTION**

Ludwig von Mises talks of the « barter-fiction » [1], saying that it allows the « construction of a market in which all transactions are performed in direct exchange. » This imaginary construction may be again possible in real life thanks to uranium and thorium currency. This money has the specific property of carrying its own energy-value, thanks to the nuclear fission use possible after transmutation in subcritical nuclear cores mixing fast and slow neutrons.

The story of fiat money may come to a progressive end thanks to the direct use of uranium or thorium. Since uranium and thorium carry a lot of energy in small volumes, are frangible, and do not emit lots of gamma rays, only alpha particles that can be avoided thanks to a plastic shield around each coin, transparent to be able to see the quality of the coin and seeing

imperfections, such as the injection of crematory plutonium within, they can be used as a monetary basis. They can be used to feed nuclear-powered cars dotted with such a subcritical breeder, or heaters in houses as well as homemade electricity production. This allows for the use of these coins as *complementary money*. This is not a full shield against fiat money, but nuclear power can be used in a variety of appliances, from mining, oil extraction to plane propulsion and space travel as well as powering public works (in a non-exhaustive list). Hence it becomes possible to pay for these services in uranium or thorium coins.

### **A QUICK LOOK AT THE URANIUM / THORIUM AND NUCLEAR SYSTEMS INVOLVED**

Breeding through fast neutrons is essential to allow to use all the uranium, esp. U238, and uranium mine tailings as well. U238 needs circa 3 days to start to yield a good amount of Pu239, which is why accompanying it with uranium mine tailings allows to help a better start for motors. It could be encouraged.

The plastic frame becomes a part of the nuclear system because it fosters slower neutrons. So a material such a magnesium or salt is used together with the uranium or thorium coins (necessarily fitted in plastic) to foster a mix of fast and slow neutrons allowing for a good plutogenization rate together with a good fission rate. In these systems, provided that the user accepts the timelapse for transition to Pu239 or U233, pure U238 or Th232 coins could be also used.

The market has recently provided for new-generation gamma spectrometers that allow a good examination of the currency, to make sure that the quality and quantity of atoms is as warranted by the offerer. Crematory plutonium, or mash plutonium, for instance, may be a temptation akin to making fiat money, since Keynesian ideas of “euthanizing the rentier” have always rested on crematory systems that were seen as emitting crematory plutonium as “valid” as standard plutonium for weaponsmaking. Keynes argued that the Autobahn “exemplified the effectiveness of deficit spending” [2]. See also [3]. Indeed additions of crematory or mash plutonium may be seen as boosting the systems. They present nevertheless bacteriological or virological risks [4], and create specific antigravitons, that disrupt human activity. These specific antigravitons may damage the systems on the long term too as they disrupt the good functioning of clean machinery. Keynesianism is short-termist. “On the long term we’ll be all dead”, says the user of crematory or mash plutonium who thinks it gives a good kick to his/her car. But it’s a credit on the future, because of the nuclear leak risk, because of the bacteriological and virological risk, and because as well of the dangers for the environment of the crematory and mash systems that are used to create tainted plutonium [5].

The nuclear systems involved need to be subcritical to avoid the main nuclear accident risk, and to allow fine control by the user by relying on the neutron source. The neutron source is usually some form of laser accelerator, that can be fit on a chip [6]. A simple neutron source relies on the  $(\alpha, n)$  reaction and pressurization thereof with a kind of compressor to increase the neutron yield by bringing the alpha particles closer to the atoms that will emit neutrons when hit by the alpha particles. A photon laser can be also used to divert the alpha particles and accelerate them in direction of a tungsten or lead plaque (for instance) [7]. By controlling the degree of pressure, or the amount of light emitted by the photon source, one can vary the intensity of the subcritical

breeder and hence accelerate or decelerate. Another system relies on seawater and a centrifuge [8], it can be fed as well with uranium or thorium coins.

Crematory or mash plutonium can be identified simply as plutonium through gamma spectrometry, and visually especially in thin coins, albeit there will always be deformities allowing to finger it, so long as the principle of transparent plastic sealing for the coins is respected. As noted by Mises, "As far as some fringes of uncertainty are left in his power to control, [the engineer] tries to eliminate them by taking safety margins" [1]. That's the purpose of the above paragraphs. "Of course he can never eliminate altogether the element of gambling present in human life". Some people may want to throw coins into their subcritical breeders without thinking of the risks, even more with rented cars for instance and other rental systems. But the offerer will have an incentive to set up a gamma spectrometer within to control the coins used and perhaps block the use with a latch in case of bad finding. The point of avoiding plutonium coins is also to regulate the subcritical systems. With its numerous fission neutrons, and higher cross-section, plutonium may create overheat in systems already having an good regime of neutron capture to fission. This could still be allowed in private use, but prohibited in rental systems where the user cannot be expected to know the initial content of the rented nuclear core. There remains the issue of crematory / mash U233. The clog issue together with the bacteriological and virological risk create both private and public motives to ban crematory and mash U233. The use of depleted uranium coins, together with thorium coins, eliminates the problem.

### **MONETARY CREATION AND CREDIT IN THIS SYSTEM**

Banks and other actors are perfectly allowed, and shall need, to own uranium or thorium-rich land (high natural radioactivity regions are usually both to some degree). This will also allow to increase progressively the fertility of the lands (see again [5] on the effects of depleted uranium on vegetation) through extraction of the radioactivity. Bringing hence an added value to humankind, unlike fiat money which solely creates uncertainty. In accordance with the Lipsey-Lancaster paradox, fiat money creates a key issue for the investor because he needs to watch for the value of his currency by looking at the prices of goods seen as encompassing intrinsic value such as gold, while also attempting to invest. Short-termism will be the necessary reply: a decreased demand for money related to corruption from e.g. crematory plutonium or pure theft on the coins (which remains a distant possibility thanks to the fitting in plastic) shall cause an increase in nominal prices [9].

Banks can and shall decide to open uranium mines, in competition with traditional mining actors. This will allow mining actors to become banks, and banks to become mining actors. Banks may decide to offer credit and the uranium / thorium coin system warrants that it be no fiat emission of money. All monetary emission requires work, in proportion with the amount emitted. Hence there is a natural responsibility principle, that will ensure a small supply of money to the market, or solely increased through work, in proportion to the needs. Technology may improve the easiness of extracting uranium / thorium, by shielding more and more the workers from the uranium / thorium dust. Workers in uranium / thorium mines may be allowed to unionize as a warrant for their lives, so that they do not end up on the black market as crematory / mash plutonium. Banks may be allowed to offer mortgage, in a responsible way, since the loaner shall, in case of non-repayment (expected to happen usually on the form of

more uranium / thorium coins) be sent to the uranium / thorium mine of the bank, for work under constraint. It may be envisioned that for credits with impossible-to-refund amounts to dig, the loaner may be constrained to death in the mine. This system is intended at responsabilizing loaners (that should be informed of its existence on the loan contract), so as to reduce the monetary supply to the economy. Because the loaner may have tried to fool the bank on its economic status and ability to repay, the bank may be allowed to mash the loaner for exceptional uses. Crematory is too inefficient for transmutation and should be entirely prohibited. *Sodium-mash* bombs may be used in *naval* warfare, because the virological risk is absorbed by the sinking of the target. It may be also allowed in strict cases of deep-space propulsion, for slingshotting around the Sun. Virological-risk fallout on the Earth should be entirely prohibited. The Sun is able to sterilize through its high heats and very fast neutrons the sodium-mash material used. Sodium-mash bombs in naval warfare present an immediate usefulness against weakly armoured cargo ships of such players as China and Iran, when these carry hidden weaponry<sup>1</sup>, which is unacceptable as it represents perfidy. One should also note that sodium-mash bombs are able to produce at impact bacteriophage viruses, that eliminate (this has been confirmed twice<sup>2</sup>) bacteria from crematory ovens (on this topic see [10]). One may indeed consider that these bombs have also a self-aiming property on crematory ovens because of the specific antigraviton-to-antigraviton attraction (crematory antigravitons on mash weapons). From this to military Keynesianism, there is a large gap, because these bombs are still inferior to clean plutonium weapons in terms of armour-piercing effect, and hence a responsible competitor will be able to defeat the banks that are using rotten contracts not stating that the mortgage is actually a death-based contract, as its name suggests in French. In addition to that, crematory systems are usually at the core of the “euthanasia of the renter” proposed by J. M. Keynes. It is true that sodium-mash systems could also become so. But it remains that the pattern of “gassing the Jews” is usually critical in this process, as also suggested by J. M. Keynes’ eulogia of Nazi totalitarianism in 1936 [11] [12].

Friedrich Hayek’s book on the Denationalization of money [13] mentions one of the advantages of the abolition of the government monopoly of money supply as « It would create the conditions in which responsibility for the control of the quantity of the currency is placed on agencies whose self-interest would make them control it in such a manner as to make it most acceptable to the users ». National competition in the system proposed in this paper creates a paradoxical limit on the emission of sodium-mash by the banks. Indeed sodium-mash is less militarily efficient than clean plutonium. Slingshotting around the Sun may not present immediate benefits in the international competition, in comparison with the use of clean plutonium for space propulsion, where it is as well more efficient. Hence a corrupt land in which banks promise easy money and produce more sodium-mash to compensate for the increased amount of bad customers they deliberately attract with the promise of easy money is necessarily less competitive militarily in addition to being possibly more exposed to the virological risk, and may be defeated by itself or by military action with clean plutonium.

May banks and “banking cranks” be bombed (with clean plutonium) if they (as Hayek predicted in the same book) oppose the new system? This type of violent measure may be ponderated

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<sup>1</sup> For instance missiles hidden in containers. Which has been already seen several times.

<sup>2</sup> And veriflicated by the Elysée in both cases.

but remains a very theoretical prospect since what matters more is convincing the public, as many people own already uranium-rich land and may decide to open a mine atop it to compete with established bankers. It is true that these people may need at the end to coalesce against established bankers and bomb them, but virtual competition may be enough to end the rule of fiat currency, as naturally the market will progressively devalue fiat currencies in relation with the uranium / thorium coins, as they will find more and more uses.

Do responsible bankers need to armour themselves against sodium-mash (and crematory) bombs? The question may be asked but these bombs have more limited armour-piercing effects. A responsible banker who limits the stream of sodium-mash “emissions” shall have more U233 / Pu239 available thanks to efficient plutogenization of his/her stocks of uranium / thorium. This will allow self-defense through efficient counter-attack.

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