Unreal bills doctrine

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Abstract: Despite two centuries of learned refutation, that particular breed of inflationism known as the 'Real Bills Doctrine' has re-emerged once more to confound the unsuspecting layman. However, in its latest champion's eagerness to rebut his critics, he has unwittingly served only to emphasize the crucial importance of savings and capital accumulation to the greater division of labour and to the material advance of mankind which it brings.

In his despair at what he saw as his inability to get the fragile sapling of economic reason to take a firm root, Mises himself was once moved to ask:

> Is the attempt to guide the people on the right road not hopeless, especially when we recognize that men like John Maynard Keynes, Bertrand Russell, Harold Laski and Albert Einstein could not comprehend economic problems?[1]

Indeed, we have to concur, for it would no doubt provide fertile ground for a doctoral thesis in that Just-So-Story 'discipline' of evolutionary psychology to speculate on whether there is something hard-wired into our atavistic, hunter-gatherer brains – tuned presumably to the instant gratification of the kill and to the visible allotment of its spoils amongst the familiar and ever-present members of the band - which militates against attaining a full grasp of the phenomena associated with divided labour, indirect exchange, and 'roundabout' methods of production.

Thus, the extirpation of economic error often seems, as Mises' lament implies, a Sisyphean task, with the true Economist doomed to the eternal task of heaving his rock of enlightenment up the hill of ignorance, only to have it slide from his sweaty grasp, to the diabolical glee of the inevitable attendant Inflationist ghoul watching over him.

As part of a series of polemics rattling around the websites normally frequented by Armageddonist gold bugs and millenary financial doomsters, Antal Fekete – professor emeritus (in Mathematics and Statistics) of the Memorial University of Newfoundland – and his acolytes have lately been dressing up that changeling of the long-discredited Banking School – namely, the Real Bills Doctrine (hence, the 'RBD') - in new clothes and simultaneously, they have sought to disparage what they term the Austrian "enemies of freedom" for their adherence to the 100% gold standard in the face of the Feketians' more advanced ratiocination.

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[1] Mises, *Notes and Recollections*, p. 68

One may acquire a hint of the sheer perversity of the argument when one knows that among the many enormities Prof. Fekete propounds is one in which he contends that the rate of interest is to be treated separately from the rate of discount, the first being "governed by the propensity to save" and the latter by the purportedly distinct "propensity to consume"! [2]

But, leaving such evident contortions aside, that RBD is subject to any number of pernicious flaws can be seen in that it rests on an 'reverse engineering' of one of the ideas and an extension of yet another framed by that egregious Scottish gambler, John Law; namely that:

> "Trade depends on money: a greater quantity employs more people than a lesser… nor can more people be set to work without more money to circulate so as to pay the wages of a greater number…"[3]

But, so long as money was rooted in the needs of trade, its increase could occasion no possible harm:

> "The (note-issuing) commission giving out what sums are demanded and taking back what sums are offered to be returned, this paper money will keep its value and there will always be as much money as there is occasion or employment for, and no more…"[4]

Here, Law - like many subsequent inflationists and real bills advocates - has overlooked one crucial flaw; that, absent the physical limitations of the scarcity of a hard specie standard to provide a restraint, this system tangles itself in not so much a Gordian, as a Gödelian knot.

The nature of this hangman's bootstrap is that, as any California real estate speculator will tell you, the sum one needs to borrow in order to buy the asset which will provide the loan's collateral is self-referentially dependent upon the quantity of similar credits already extended for similar purposes, thanks to their crucial role in determining the asset's prevailing market price.

As Henry Thornton – that giant of the Currency School – succinctly put it, two hundred years since:

> "[Law] forgot that there might be no bounds to the demand for paper; that the increasing quantity would contribute to the rise of commodities and the rise of commodities require – and seem to justify – a still further increase"[5]

Thornton's near contemporary, Joplin, was equally quick to spot the error:

> "Bankers, indeed, have the idea that their issues are always called forth by the natural wants of the country, and that it is high prices that cause a demand for their notes, and not their issues which create high prices, and vice versa. The principle is absurd, but it is the

[2] http://shoemakerconsulting.com/GoldisFreedom/lecture101-6.htm

[3] Money and Trade Considered, 1705

[4] Ibid.

[5] *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain*, 1902

natural inference to be deduced from their local experience. They find themselves contracted in their issues, by laws which they do not understand, and are consequently led to attribute the artificial movements of the currency to the hidden operations of nature, which they term the wants of the country"[6]

Mises later agreed, noting that:

> "The Banking School failed entirely in dealing with these problems. It was confused by a spurious idea according to which the requirements of business rigidly limit the maximum amount of convertible banknotes that a bank can issue. They did not see that the demand of the public for credit is a magnitude dependent on the banks' readiness to lend, and that banks which do not bother about their own solvency are in a position to expand circulation credit by lowering the rate of interest below the market rate. It is not true that the maximum amount which a bank can lend, if it limits its lending to discounting short-term bills of exchange resulting from the sale and purchase of raw materials and half-manufactured goods, is a quantity uniquely determined by the state of business and independent of the bank's policies. This quantity expands or shrinks with the lowering or raising of the rate of discount. Lowering the rate of interest is tantamount to increasing the quantity of what is mistakenly considered as the fair and normal requirements of business."[7]

And, again that:

> The assertion that lies at the heart of the position taken up by the Banking School, namely that it is impossible to set and permanently maintain in circulation more notes than will meet the public demand, is untenable; for the demand for credit is not a fixed quantity; it expands as the rate of interest falls, and contracts as the rate of interest rises. But since the rate of interest that is charged for loans made in fiduciary media created expressly for that purpose can be reduced by the banks in the first instance down to the limit set by the marginal utility of the capital used in the banking business, that is, practically to zero, the whole edifice built up by [the] school collapses… The quantity of fiduciary media flowing from the banks into circulation is admittedly limited by the number and extent of the requests for discounting that the banks receive. But the number and extent of these requests are not independent of the credit policy of the banks; by reducing the rate of interest charged on loans, it is possible for the banks indefinitely to increase the public demand for credit. And since the banks—as even the most orthodox disciples of [the Banking school] cannot deny—can meet all these demands for credit, they can extend their issue of fiduciary media arbitrarily."[8]

But, even were we to overlook these fundamental objections and to allow the Feketians their head, they nowhere explain to us how we are to determine the 'reality' of a given bill in today's complex economy.

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[6] *Views on the subject of corn and currency*, 1826,
[7] *Human Action, Ch XVII, 12, p440*
[8] *Theory of Money and Credit, Pt III, Ch 19*

How are we to gauge the value of, say, the provision of legal services in a patent dispute, rather than that of a VLCC cruising the high seas? Or how might the act of contracting the WPP Group for an advertising campaign differ from laying claim to the very tangible cargo of iron ore nestling in the hold of a 1,000-ft carrier plying the waterways of the Great Lakes?

One might even maliciously wonder whether a margin loan on the NYSE is not at least a cousin to a 'real' bill, since it helps finance the purchase of a direct claim upon the net productive assets – the stock – of a private corporation. And what about a repurchase agreement used to finance a holding of that same corporate's debt and hence to maintain a prior lien on a share of its income stream?

How, moreover, does the good Prof. Fekete propose to prohibit the issue of finance ("pig on pork") or accommodation bills (glorified promissory notes) – and lest the reader thinks we are arguing about the niceties of some nineteenth century anachronism, he should be aware that the traditional bill's latter day equivalents in this area, asset-backed securities, are a quintessential feature of the modern credit landscape, comprising a $1.8 trillion market in the US alone.

In failing to address these points, Prof. Fekete not only overlooks the sporadic bill-"kiting" crises which dogged Industrial Britain throughout what he supposes to be a complete golden age, he also fails to recognise that it would be only too trivial to disguise such bastard children as the 'real' thing in today's Andersen-Enron-Citigroup, financially-engineered, smoke-and-mirrors economy.

Thornton, again, was scathing on this very point:

> "Real notes, it is sometimes said, represent actual property. There are actual goods in existence, which are the counterpart to every real note. Notes which are not drawn, in consequence of a sale of goods, are a species of false wealth, by which a nation is deceived. These supply only an imaginary capital; the others indicate one that is real."
>
> In answer to this statement it may be observed, first, that the notes given in consequence of a real sale of goods cannot be considered as, on that account, certainly representing any actual property."
>
> "Suppose that A sells one hundred pounds worth of goods to B at six months credit, and takes a bill at six months for it; and that B, within a month after, sells the same goods, at a like credit, to C, taking a bill; and again, that C, after another month, sells them to D, taking a like bill, and so on. There may then, at the end of six months, be six bills of 100 pounds each existing at the same time; and every one of these may possibly have been discounted. Of all these bills, then, only one represents any actual property."[9]

However, *erratum longum, vita brevis*, so, rather than picking our way through each of the many mistakes which litter Prof. Fekete's diatribe, there is one matter whose exegesis might furnish us with a more lasting reward than the simple pleasure of puffing air at his inflationist

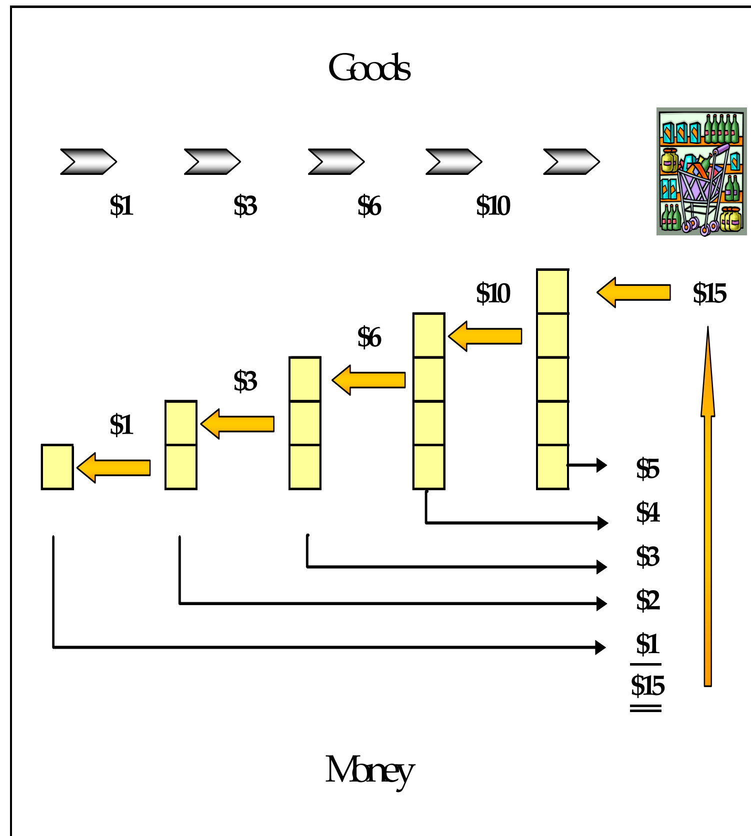
[9] Thornton, *Ibid.*

house of cards – namely, that related to the cone of production[10], to the importance of the concept of gross, not net, product (as Professor Reisman[11] has taken great pains to elucidate), and to the true function of saving[12].

Here we must allow Professor Fekete the liberty of hoisting himself on his own petard and quote him at some length:

> "... it is not possible to finance all of society's circulating capital out of savings. It would put inordinate demand on savings that simply could not be met. Consider a hypothetical production cycle [of] 91 days, with as many as 90 firms participating, so that the sojourn of the semi-finished product at every one of the 90 stops takes one day. The ultimate consumer is willing to pay $100 for [it] while the producer of the 90th order good has paid $11 for raw materials. We shall also assume that the value added to the maturing product at every stop is $1. Now if you want to finance the movement of one [unit]… through the various stages of production… you have to withdraw savings in the amount of… $4995, almost 50 times retail value"[13]

As we analyze this contention, rather than consider Fekete's somewhat exaggerated 90-stage process straight off, we shall first keep the numbers manageable by looking at a chain of only five links instead. We shall now build a Hayekian triangle of one tactical unit (consisting of a due input of entrepreneurial and other labour plus capital - henceforward, a "worker") in the earliest stage; two in the second; three in the third, and so on.



We thus end up with 15 "workers" overall and we shall assume that they each produce one value unit (for simplicity 1 gold dollar) as a result of their efforts.

[10] http://www.mises.org/story/1114
[11] http://www.capitalism.net/Capitalism/articles/Reisman%20AJES%20Article--AJES.pdf
[12] http://www.mises.org/etexts/functionofsaving.asp
[13] http://www.safehaven.com/article-3426.htm

Thus, at steady state and once the flow of goods has been run through, we will have the set up depicted in the accompanying diagram.

So, now we see that, yes, there will be a notional total of $35 in revenues flowing in order to produce and sell just one $15 batch of final goods.

With this in mind, we can now take a slightly recast version of Fekete's original example and so imagine a system where one 'worker' operates in the first stage, two in the second, and so on, up to ninety in the last.

A little arithmetic will show that we require 4,095 units of final goods output (selling for $4,095, at $1 a piece, to equalize the real income of all participating 'workers') and we also find that we shall generate $125,580 in revenues per cycle a perfect match for the *125,580 units of intermediate and final goods* which we shall be transporting down the chain in return.

Though there is no obvious problem with this natural concomitance, the seeming monetary disproportion does cause our bill-wielding maths professor to utter howls of derision at the idea of using scarce money to effect such a scanty conversion of effort into final goods. But, in fact, there is an important truth to be revealed here.

For what Fekete fails to perceive is that his national accounts-style obsession with the value of only these final goods and his consequent - and logically fatal - neglect of the importance of all the intermediate products to which each cycle gives rise, has mislead him into scorning what is, indeed, a verity of considerable importance to the spontaneous economic order through means of which genuine capitalism showers us with its bounteous material riches.

It goes almost without saying that this is a verity which no true Austrian would knowingly disregard.

Now, narrowly, it is true that a clearing instrument (CI), a bill (real or otherwise) would greatly facilitate the movement of the stream of products which emanates from our highly vertically-divided arrangement of labour. However, we must acknowledge that the income – if not necessarily the intermediate revenues – must be settled in gold dollars – in *money* - in order to avoid entraining an inflationary outcome.

Thus, in our baby example of the diagram above, we could justifiably utilize $15 of gold and $30 in CIs, just as, in our recasting of Fekete, we could get by with $4095 in gold and supplement its use with just over 30 times its value in CIs.

Alternatively, of course, there is no fundamental reason why we could not use the same physical $15 of gold (it is highly divisible and completely fungible, after all) and allow prices to fall to 1/273 of their original gold level so as to reflect the sizeable increase in the output of goods-in-being (a point which Fekete totally misses in his characteristic inflationist's haste to use a putative shortage of money as an argument for his schemes).

One key point here, however, is that, even if they should be used for convenience, the clearing instruments are *not* themselves money in that they cannot automatically be used for final settlement *pari passu* for final goods, certainly not on demand and not at full face value.

In fact, even this can proviso can provide little enough protection against excess, if the issue of bills (or other credit) becomes swollen with regard to the money stock – as it so easily can under a system where inherently fraudulent fractional reserve banks are lulled into the false security of having a lender of last resort behind them or, indeed, in cases where that (typically state-privileged) lender itself is over ready to rediscount their acceptances.

Here, as Law's sometime confederate, Richard Cantillon, remarked, the ultimate check was imposed when the winners tried to leave the casino:

> "In 1720, the capital of public stock and of Bubbles - which were snares and enterprises of private companies at London - rose to the value of 800 millions sterling, yet the purchases and sales of such pestilential stocks were carried on without difficulty through the quantity of notes of all kinds which were issued, while the same paper money was accepted in payment of interest. But as soon as the idea of great fortunes induced many individuals to increase their expenses, to buy carriages, foreign linen and silk, cash was needed for all that… and this broke up all the systems."[14]

Naturally, today's South Sea Bubbles and Mississippi Schemes call into play instead what the market argot terms the 'Greenspan Put', for they are now watched over by a côterie of central banks, collectively untrammelled in the exercise of their peculiar brand of RBD and ever-ready to abnegate all semblance of prudential conduct in a crisis by invoking their avowed prior necessity to maintain the 'financial stability' of their multi-trillion dollar house of cards.

But, even setting aside the case of such effusions of wild optimism and their ensuing outbreaks of despair, it remains to emphasize that one of the most insidious dangers of the RBD – a peril of intensely practical significance in the modern form enshrined in the Fed's avowed aim to "provide the nation with a… more flexible… monetary and financial system"[15] – is precisely that it allows such 'clearing instruments' to be converted into – indeed, to form the basis of the issue of – money and thus it begins to disrupt all-important relative price signals, both between factors and across time itself, ineluctably perverting economic activity and so triggering the highly wasteful cycle of repeated Boom-and-Bust.

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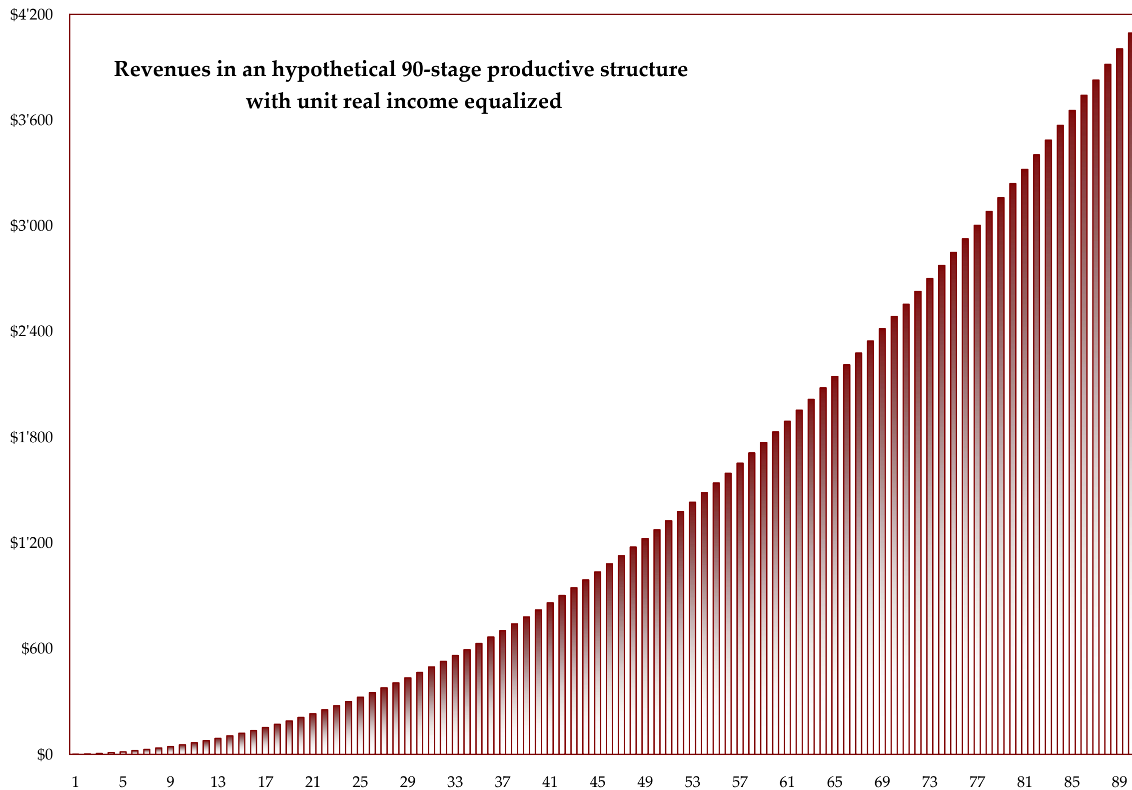
[14] *Essai sur la Nature du Commerce in Général, Part III, Ch 7*, Richard Cantillon
[15] http://www.federalreserve.gov



More important still, however, is that Fekete, in his ambition to be seen as a monetary Messiah, shares the all too common trait of inflationists from Law to Gesell, to Keynes, and on to Bernanke; *viz*., that he has lost sight of the ineluctable truth that it decidedly ***does*** take genuine net savings to build our triangle in the first place.

What all such monetary manipulators overlook is that, while physical equipment is being assembled, land cleared, buildings constructed, workers trained and hired, there inevitably arises exactly so much excess of the demand for the sustenance for the workers involved over their ability simultaneously to provide for its supply themselves.

Moreover, there must necessarily be a suitable degree of diversion of scarce physical resources away from the provision of final goods and into the creation of the new, higher order ones, for the whole duration of such an undertaking.

Here, if we think of the Hayekian triangle, not so much as a stylized economy, but as a factory assembly line, it becomes easier to visualize the situation wherein, once a firm decides to revamp its production arrangements, it is highly likely that the existing output of its products will suffer while the re-organisation takes place.

Thus, the company will have to build up an inventory to tide it over if it wishes to keep its customers happy - i.e. it will have to have saved ***pre-emptively*** before the revamp of its factory.

If not, then the burden will fall instead upon the consumers of the firm's products – individuals who, of course, play a dual role as the producers of the goods which the firm and its workers need in their turn and for which they ultimately exchange their wares.

In the case where the firm has not saved by laying in inventory ahead of time – perhaps because the owners have managed to issue a 'real' bill! – the good souls who are its customers will temporarily be compelled to forego the consumption to which they have otherwise earned the right by producing their own marketable goods.

So, assuming they do not simply retire to the beach, while the retooling is being completed, they will have to save *concurrently* with its undertaking.

(Without diverging too far from our theme at this juncture, it is this outcome which, when engendered by producer-centric monetary manipulation, comes under the vexed Keynesian rubric of 'forced saving').

But how much saving is needed to accomplish this task? In what proportion to the ongoing division of labour must consumption be foregone?

Again a baby example may suffice for clarification (and, thereafter, we can apply our findings to the modified Fekete economy, for comparison).

Suppose, if you will, that our fifteen original 'workers' are overseen by that wise deity of divided labour, the god Poros Oikokratos[16].

Poros seeks the fastest, most efficient way to reorder our fifteen, hand-to-mouth units into a Hayekian 1-2-3-4-5 triangle and starts by dispatching the first man, A, up to the sharp end to make his one unit of first-order goods.

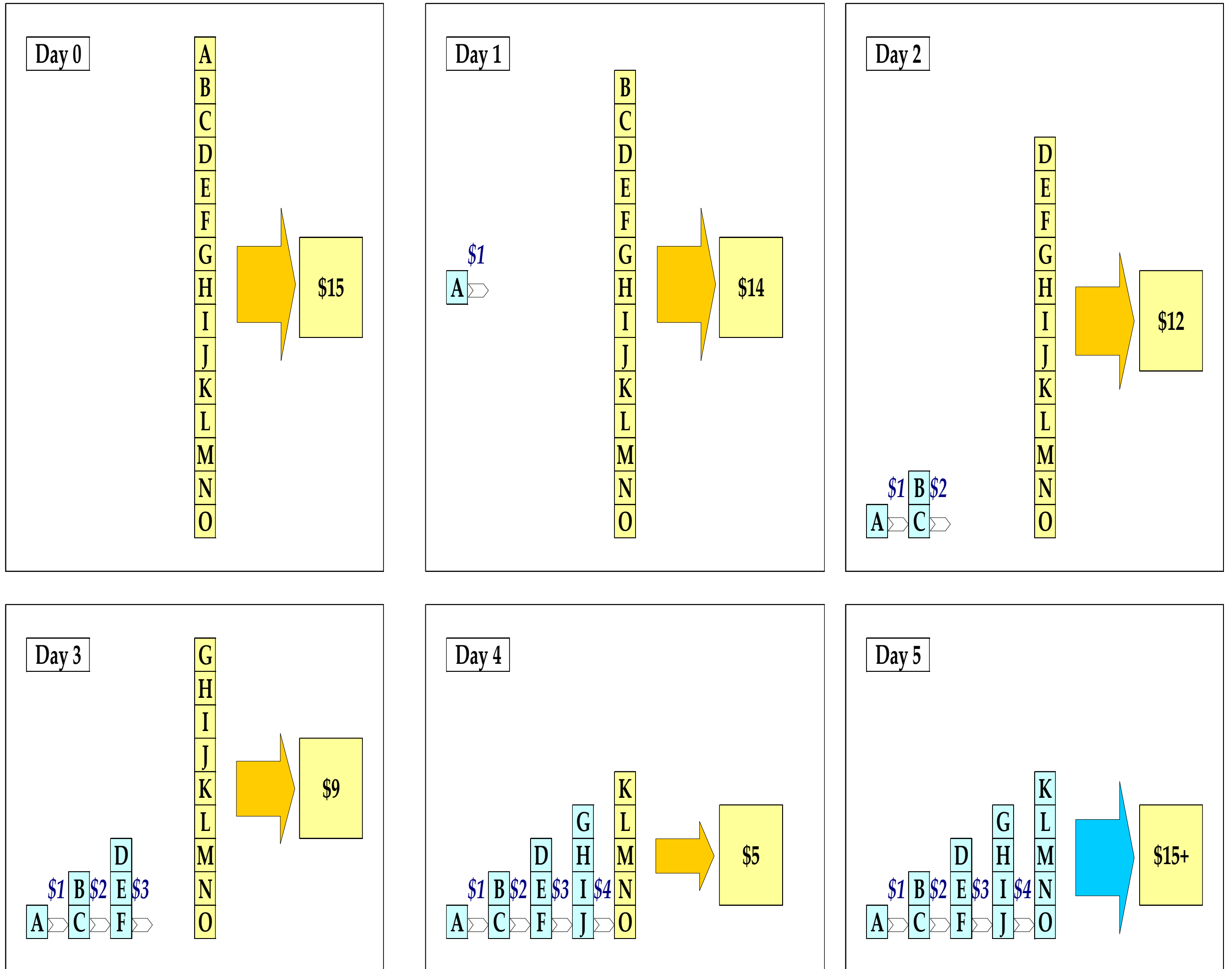
As he toils, the fourteen remaining workers continue labouring as before, meaning that total consumable output falls short of demand by one unit that first day and so one unit of savings is needed to fill the gap.

The next day, while A continues to work on another batch of first-order goods, Poros dispatches two more workers, B and C, to take delivery of A's already finished product and to begin to transform it into second-order goods of two units' worth. Accordingly, only twelve are left to continue to turn out consumables and, so the troupe will be three units in deficit. Savings to the rescue, once more!

A similar thing happens when Poros redeploys first D, E, and F on the third day; then G, H, I, and J on the fourth; and when finally he retrains K, L, M, N, and O to their new tasks on the fifth and final day.

[16] The reader is asked to forgive the use of a little Pigeon Greek for Henry (*Heinrich*, or 'home-ruler') Ford!

The upshot of all this is that the god, in all his omniscience, requires 1+3+6+10+15 = 35 units of subsistence fund capital to accommodate the change-over – an amount of savings equivalent to 2 1/3 full prior production cycles



Heartened by his success in this, Poros becomes more ambitious and includes ever more workers in ever longer triangles. When he does so, he finds that, as the number of stages increases, so this ratio between original output and savings climbs also.

When he rearranges 55 'workers' into a 1-to-10 pyramid, he needs 220 units, or 4 full days of savings. If he re-orders 210 'workers' into a 1-to-20 pyramid, he requires 7 1/3 days' output; for a 465-strong, 1-to-30 set-up, he has to set aside 10 2/3 days, and so on.

In fact, by the time he gets to Fekete's 90-stage process, Poros will need fully 30 2/3 days of savings, or 125,580 units of goods, churned out at the rate of 4,095 per day, in order to accomplish his task.

At this stage, the observant reader may have noticed that the requisite quantity of savings of consumer goods needed to divide labour vertically in this manner is arithmetically equivalent to the revenue flow which comprises one full turn of the completed, triangularized structure!

So much for the laughter with which Professor Fekete greeted the idea that rather than using the wholly insubstantial backing of one of his supposedly 'real' pieces of paper, circulating capital must actually take the form of high multiples of the saved output of final goods.

For what we have demonstrated is that circulating capital, no less than fixed, must be *funded* – i.e. it must be built out of a store of saved consumption goods or else accompanied by foregone consumption opportunity – and that no amount of monetary l*egerdemain* can avoid this restriction.

It should also be noted that, even with the simplifications already imposed, there are yet two other levels of idealization present in our schema.

Firstly, we have been graced by the Olympian offices of an overseeing deity in order to minimise the entailed disruption and to increase the efficiency of the realisation of our re-ordering – a highly unlikely prospect in a world where either single entrepreneurs and capitalists pit their wits against an unknowable future, or else the Tin Gods of the Collective display fatal conceit, rather than divine foresight.

Secondly, in all this, we have only accounted for the maintenance of the *human* element of our composite capital-labour 'workers' and so saved only final goods.

The reality is that we may well need to divert an over-proportionate amount of scarce physical resources - such as fuel, raw materials, land, and even some of the remaining machinery - away from the reduced, interim production of such goods and into our new building process, as well.

This will especially be the case since our composite 'workers' were implicitly assumed to have taken their capital with them when they moved up the order, whereas - in the real world - much of this capital will not be so readily interchangeable in function, but will have to be largely fashioned anew.

Thus, on both counts, even the seemingly high multiples which our simple heuristics have generated are likely to be seriously understated.

No wonder that while Soviet Russia could routinely announce new pig iron production records, its people were left craving a few ounces of butter and had to queue long hours in the hope of securing a few heads of fresh cabbage!

So, faced with this realisation, are we to conclude that matters are indeed hopeless - that the division of labour cannot be achieved without the whips of Collectivist coercion and the scorpions of inflationary finance?

Not a bit of it.

For what all the forgoing excludes is any consideration of the essential purpose behind all this endeavour to increase 'roundaboutness' and to bring about an increasing specialization of function – namely, the very real increase in productivity and efficacy which such an advance almost invariably brings forth.[17]

Yes, we must save and nurture a good deal of capital, indeed, if we are sustainably to lengthen the structure of production; but the effort to do so usually brings about its own reward.

As the apex of the cone of production is shifted to a more remote location from the store front, so its mouth may also be widened - giving rise to more goods per cycle; it may be improved – giving rise to better; and it may be accelerated – giving us more cycles per unit of time.

Out of this, of course, comes the possibility of generating ever more future savings ever more easily, which all means that the magic of compounding applies not just to monetary interest, but also to real capital.

In finally dispensing with the good Professor Fekete's contumely, we find he has, in fact, rendered us a service, for he has forcefully pointed out what an effort capital accumulation is and so he has charged us to beware of anything which threatens this act: threats to property; the risk of civil disorder; legal and contractual uncertainty; the clouding of entrepreneurial calculation; and the frustration of the market.

On this reckoning, his own wild dreams of resurrecting the age-old follies - and his unintended effect of reinforcing the present-day incarnation - of the irretrievably-flawed real bills doctrine poses perhaps the single greatest concentration of all these dangers - in complete contrast to the protections which would be afforded by the institution of a free banking system, securely bound by the ordinary laws of contract and girded tightly about with a 100% gold coin reserve standard[18].

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[17] *The Positive Theory of Capital, Bk II, ChII.19, n13*, Böhm-Bawerk
[18] *The Case for a Genuine Gold Dollar*, Murray Rothbard